

Electronic Thesis and Dissertation Repository

April 2013

Barriers to Education in Homeless Youth

Michelle S. Solomon

The University of Western Ontario

Supervisor

Dr. Cheryl Forchuk

The University of Western Ontario

Graduate Program in Nursing

A thesis submitted in partial fulfillment of the requirements for the degree in Master of Science

© Michelle S. Solomon 2013

Follow this and additional works at: <https://ir.lib.uwo.ca/etd>

 Part of the [Education Commons](#)

Recommended Citation

Solomon, Michelle S., "Barriers to Education in Homeless Youth" (2013). *Electronic Thesis and Dissertation Repository*. 1201.
<https://ir.lib.uwo.ca/etd/1201>

This Dissertation/Thesis is brought to you for free and open access by Scholarship@Western. It has been accepted for inclusion in Electronic Thesis and Dissertation Repository by an authorized administrator of Scholarship@Western. For more information, please contact tadam@uwo.ca.

BARRIERS TO EDUCATION IN HOMELESS YOUTH

(Thesis format: Integrated Article)

by

Michelle Syreeta Solomon

Graduate Program in Nursing

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science in Nursing

The School of Graduate and Postdoctoral Studies
The University of Western Ontario
London, Ontario, Canada

© Michelle Syreeta Solomon 2013

Abstract

Most homeless youth in Canada have not completed high school. Lack of education is a critical issue that affects pathways to gainful employment, financial security, and positive health. Several risk factors affect their ability to succeed in school; however, there has been limited research in Canada that identifies the most influential factors. This study is a secondary analysis of the Youth Matters in London: Mental Health, Addiction and Homelessness study in London Ontario. It is guided by Bronfenbrenner's ecological theory of human development. The effects of several environmental factors on the academic achievement of 187 homeless youth with mental health and addiction issues were assessed using logistic regression. Results indicated that housing stability was the most significant predictor of academic achievement. This study has implications for affordable, accessible housing and educational program policy that will assist youth with their academic achievement.

Keywords: homeless, youth, barriers, academic achievement, education, ecological theory of human development

Co-Authorship

Michelle Solomon completed the following work under the primary supervision of Dr. Cheryl Forchuk, and the secondary supervision of Dr. Michael Kerr. Dr. Forchuk and Dr. Kerr will be co-authors on future publications resulting from this manuscript.

Acknowledgements

I would like to thank the nursing faculty at the Arthur Labatt Family School of Nursing for their support and belief in me. I would also like to thank my supervisors, Dr. Cheryl Forchuk, and Dr. Mickey Kerr for instructing me along the way and offering their encouragement! Your footsteps set the stage for what was expected of me. I would also like to thank the researchers who played a part in helping me with the statistical analysis. Thank you to my family, for their ongoing love and support of me and my academic pursuits. To my grandparents Kemrick and Elaine, and to my parents Shelley-Ann and Michael, thank you for believing in me and telling me that I could do anything I put my mind to. I will believe that always. Thank you to my sisters for their support and friendship. I love you! Foremost, I would like to thank God for giving me the ability to pursue my nursing career to the heights in which He has called me.

Table of Contents

Abstract.....	ii
Co-Authorship.....	iii
Acknowledgements.....	iv
List of Tables.....	vii
List of Figures.....	viii
List of Appendices.....	ix
Chapter 1.....	1
Introduction.....	1
Literature Review.....	3
Theoretical Model.....	21
References.....	23
Chapter Two.....	29
Manuscript.....	29
Purpose of the Study.....	33
Statement of Research Hypotheses.....	34
Methodology.....	36
Research Design.....	37
Setting and Sample.....	37
Data Collection.....	38
Measures.....	39
Data Analysis.....	44
Protection of Human Rights.....	45
Results.....	45
Sample Descriptions.....	45
Study Variable Descriptions.....	48
Relationships Between Study Variables.....	51
Results of the Tests of Hypotheses.....	55
Discussion.....	68
Relationships Between Study Variables.....	69
Results of Hypotheses Testing.....	71
Limitations.....	73
Conclusions.....	74
References.....	75

Chapter 3.....	85
Implications for Nursing Practice.....	85
Policy Recommendations	87
Recommendation for Future Research	89
Conclusions	89
References.....	91
Appendices.....	95
Curriculum Vitae.....	135

List of Tables

Table 1 Descriptive Statistics	47
Table 2 Study Variable Statistics.....	50
Table 3 T-tests Comparing Number of Times Moved, Victimization Exposure, Satisfaction with Family Relations, and Social Competence on Two Different Levels of Access to Care	52
Table 4 Mann-Whitney Tests Between Access to Care, Length of Time Housed, and Health and Social Service Use	53
Table 5 Pearson r Correlation Coefficients Between Normally Distributed Variables	53
Table 6 Spearman’s Rho Coefficients: Testing Relationships Between Skewed Variables	54
Table 7 Summary Table of the Relationships Between Independent Variables	55
Table 8 Mann-Whitney Test Between Length of Time Housed and Academic Achievement.....	56
Table 9 T-test Between Number of Times Moved and Academic Achievement	57
Table 10 Chi-Square Test Between Victimization Exposure and Academic Achievement	58
Table 11 T-test Between Satisfaction with Family Relations and Academic Achievement	59
Table 12 Chi-Square Test Between Social Competence and Academic Achievement	60
Table 13 Mann-Whitney Test Between Health and Social Service Use and Academic Achievement	61
Table 14 Chi-Square Test Between Access to Care and Academic Achievement	62
Table 15 Summary Table for the Testing of Hypotheses 1-7	63
Table 16 Logistic Regression Model: Predicting High School Completion.....	66
Table 17 Logistic Regression Model: Predicting Current Enrollment in School	67

List of Figures

Figure 1: Model of Study Variables. 36

List of Appendices

Appendix A: Summary of the Literature Search.....	95
Appendix B: Study Variable Items	96
Appendix C: Demographics, Service and Housing History Questionnaire	99
Appendix D: Housing History Survey Questionnaire	105
Appendix E: Health, Social, Justice Service Use Questionnaire	108
Appendix F: Quality of Life Inventory 20 Questionnaire	122
Appendix G: Multnomah Community Ability Scale Questionnaire	124
Appendix H: Access Questionnaire	129
Appendix I: Scales for Satisfaction with Family Relations and Social Competence	131
Appendix J: Bar Charts for Descriptive Statistics	132

Chapter 1

Introduction

Overview of youth homelessness

Youth homelessness is a national crisis (Evenson & Barr, 2009). Being homeless means, being “without stable, permanent, appropriate housing, or the immediate prospect, means and ability of acquiring it” (Canadian Homelessness Research Network, 2012, p. 1). Among the estimated 150 000 homeless individuals in Canada, 65 000 are youth between the ages of 12 and 29. They huddle on street corners, park benches, friends’ couches, or emergency shelters. They become homeless not by choice, but by circumstances (Evenson & Barr, 2009). The causes for homelessness are complex. Many homeless youth have experienced family related issues such as, poverty, violence in the home, abuse (becoming “runaway or throw away” youth), gender and sexual identity issues, substance abuse, and mental illness. Once youth have exhausted staying with family and friends, they may sleep on the street, or find shelters to stay in (Evenson & Barr, 2009; MacKay & Hughes, 1994).

Homeless youth face many risk factors on the street. Boivin, Roy, Haley, and Galbaud du Fort (2009), and Hallett (2012) have documented these risks to be unsafe sexual practices, drug use, poor diet, inadequate shelter, exposure to violence, low levels of social support, and limited access to medical care. In addition to this, acquiring blood-borne and sexually transmitted infections, acquiring mental health problems, becoming pregnant, and experiencing violence and early mortality are among the many health outcomes affecting homeless youth (Boivin et al., 2009; Hallett, 2012). Many of these youth have not completed high school or post-secondary education, a health risk factor that has not been extensively investigated in the

homeless youth population (Evenson & Barr, 2009; Rachlis, Wood, Zhang, Montaner, & Kerr, 2009).

Education: a social determinant of health

Education is a social determinant of health (Mikkonen & Raphael, 2010) as it influences the living conditions that help to shape health. Education is important because it provides a roadmap to resources that promote a healthier lifestyle. Individuals with higher levels of education tend to be healthier than those with lower levels of education (Mikkonen & Raphael, 2010). Education provides better access to societal and economic resources and is strongly correlated to income, employment security, and working conditions (Mikkonen & Raphael, 2010). Murphy and Tobin (2011) state that homelessness can have powerful negative effects on academic success; homeless students are significantly less likely to succeed than their housed peers. Not being able to navigate the educational system, places homeless youth at a disadvantage of also not being able to navigate the economic and social systems of life. Incompletion of high school "creates serious handicaps for reintegrating homeless youngsters into society as they grow into adulthood ...they are much more likely than students who never experienced homelessness to become chronically unemployed adults " (Murphy & Tobin, 2011, p. 34).

Education in homeless youth

Evenson and Barr (2009) conducted a three-year project from 2006-2009 to describe the lived experience of 689 street-involved youth in Toronto, Calgary, and St. Johns. Participants were youth between the ages of 12 to 29. Out of 324 respondents, 62% reported dropping out of school. Another Canadian study by Rachlis et al. (2009) conducted in Vancouver from 2005-2006 found that out of 284 street-involved youth ages 14 to 26, 72.5% were found to have less

than a high school education. Considering the value of education and the influence it has on access to employment and training opportunities, as well as ability to secure affordable, accessible, and appropriate housing, these findings are alarming (Evenson & Barr, 2009). Few Canadian studies have investigated variables affecting education in homeless youth. Because academic achievement has been a significant obstacle for the majority of homeless Canadian youth, defining the relationships between homelessness and education more clearly will bring greater insight into how education can be facilitated.

This research will have implications for nursing practice, as Reutter and Kushner (2010) state, it is the mandate of nurses to promote health equity in individuals. This means working to change the environment and social conditions that contribute to health inequities. Lack of education is a health inequity; by understanding the barriers to education among homeless youth, nurses can work to prevent some of the disparities that emerge from lack of education. This research can be used to influence policies and practices at micro, meso, and macro levels that affect the education of homeless youth in Canada.

Literature Review

Literature search methodology

A literature review was conducted using multiple databases: The Cumulative Index to Nursing and Allied Health Literature (CINAHL); Pub Med; Scopus; Psych Info; Eric Plus; Proquest Education Journals; Social Science Index; SocINDEX; and The Homeless Hub. The Homeless Hub is “the largest library of homelessness-related resources in the world” (The Homeless Hub, 2012). Search terms used included “homeless” or “homelessness”, “adolescence”, or “youth” and “education” or “academic achievement.” Throughout the

literature review, the terms “adolescent” and “youth” were relative and encompassed a large age range (12 to 30 years) which was consistent with the age definition of youth by Evenson and Barr (2009). This age range encompassed individuals in elementary school, secondary school, and post-secondary school. Searches were limited to English language articles. Some articles were retrieved from the reference list of key articles. From the databases searched, 133 articles were read to see if they discussed the relationship between homeless youth, and barriers to academic achievement. Overall, twenty-six articles were included in the literature review; two of which were Canadian articles. Appendix A provides a summary of the literature search.

Resilience in homeless youth and education

In their Canadian qualitative study, Hyman, Aubry and Klodawsky (2011) sought to explain how adolescent youth with a history of homelessness were able to participate in school despite their adverse circumstances. The researchers used an ecological resilience prediction model (ERPM) to examine the relationships between adverse circumstances and participation in school. The model examined variables at the individual (longer duration of rehousing, sex, higher levels of empowerment, and higher levels of active coping), social (having a positive mentor, having large social networks, and higher levels of satisfaction with social support), and community levels (greater use of supportive community services) that were important to achieving outcomes consistent with the construct, resilience. Eighty-two youth between the ages of 16-19 years were recruited and logistic regression was used to analyze the relationships at time one (2002-2003) and time two (2004-2005).

Hyman et al. (2011) reported that at time one, all participants were homeless. At time two, 65 out of 82 participants (79.3%) reported living in stable housing. Out of the 65 youth, 89.2% of female respondents had stable housing, meanwhile 71.1% of the male respondents

reported living in stable housing. In terms of school participation, only 28% of the youth reported participating in school at time two. Forty-three percent of them (43.2%) were current female students while 15.6% were current male students. The remaining 41.2% of youth who reported participating in school were not currently enrolled in school. Being female, and the duration of rehousing emerged as significant individual predictors of educational resilience. Females were four times more likely to participate in school at time two compared to males. There was also a positive correlation which demonstrated that the longer youth were living in adequate housing, the more likely they were to participate in school. In the area of social predictors, satisfaction with social support significantly predicted school participation. Youth who were not in school at time two reported an increase in satisfaction with social support while youth who were in school reported no change in their level of satisfaction with social support. The size of social network and presence of a positive mentor, however, were not significantly associated with participation in school. The community predictor, “social service utilization”, was also not found to be a significant predictor of school participation (Hyman et al., 2011).

In a study by Reed-Victor and Stronge (2010), staff involved in education programs for homeless individuals were interviewed to gather data on the individual and environmental protective factors that promoted resilience in school. An ecological perspective of resilience was used which took into account multiple factors influencing a child’s developmental course, i.e. family, school, and the community. Protective factors were defined as moderators of stress, catalysts for adaptive responses, an individual’s strengths, as well as the support of others in finding a solution (Reed-Victor & Stronge, 2010).

A sample of 36 students (17 males and 19 females) between the ages of 4 and 16 were assessed by staff: six were in pre-school; 23 in elementary school; and seven in secondary

programs. The students had received educational and/or support services, (ex. teacher, counsellor, family involvement specialist) within the last year and had contact with the staff for at least two months. Results showed that those who were homeless possessed individual protective factors such as extraversion, conscientiousness and openness to experience. Being agreeable and having emotional stability were not protective individual factors possessed by youth. Environmental factors that were not protective involved lack of support, lack of structure, and lack of opportunity resultant of frequent moving, poor financial resources, and family emotional stress. In school, a lack of academic support and resources for homeless students, and not understanding the needs of students were significant barriers to education. In the community, lack of supportive housing and counseling for parents, as well as deficiencies in parenting support and enrichment activities were additional barriers to education (Reed-victor & Stronge, 2010).

A study by Kennedy (2007) used a risk and resilience perspective to examine the relationships between the risk factors of homelessness, cumulative violence exposure, and school participation in 120 adolescent mothers living in poverty. Mothers in the study were between the ages of 16-20, pregnant, or had given birth prior to turning 20. Twenty-one percent of the sample had “ever” experienced homeless. This meant they were currently homeless, or homeless in the past. All of the participants were assessed for their exposure to violence including: witnessing parental violence; physical abuse by a parent or adult caregiver; and partner violence. Assessing school participation encompassed current enrollment in school, whether one had graduated from school, had dropped out, was suspended, or expelled. Participants were compared to adolescent mothers who had never been homeless (Kennedy, 2007).

Kennedy (2007) found that being homeless was significantly associated with reduced participation in school. Homeless participants had a school participation rate that was 65% lower than participants who had never been homeless. In terms of the impact of having children, each additional child was related to a 49% decrease in the rate of overall school participation. In terms of experiencing violence, participants who had been homeless had significantly higher rates of witnessing parental violence (85%), physical abuse by a parent or adult caregiver (72%) and experienced violence perpetrated by a partner (59%) compared to participants who had not experienced homelessness (Kennedy, 2007).

Kennedy (2007) found that homeless mothers had significantly lower average rates of positive attitudes towards school, social support, and overall school participation compared to mothers who had never been homeless. Of the mothers who had “ever” experienced homelessness (24), 21% of them had medium to high or high overall school participation in addition to having experienced violence in their life-time—an indicator of resilience. Overall, this study demonstrated that young women exposed to multiple risk factors: being homeless; number of children; and experiencing violence contributed to lower rates of positive attitudes toward school and overall school participation. There is a need to assess exposure to violence as well as the housing situation of pregnant and parenting adolescents. Family violence leads to homelessness, and homelessness is negatively associated with school participation. With housing and safety needs met, young mothers have an opportunity to pursue schooling (Kennedy, 2007).

Mobility of homeless youth

A study by Rafferty, Shinn and Weitzman (2004) compared the school experiences and cognitive abilities between formerly homeless and housed adolescents based on their self-reports and their maternal reports. Achievement in reading and mathematics before, during, and after

their experience of homelessness was examined in homeless youth in comparison to housed youth. Forty-six homeless adolescents and 87 permanently housed adolescents made up the sample. Approximately half were female and the majority were African-American and Latino-American. The collection of data occurred after the homeless students were rehoused (Rafferty et al., 2004).

Adolescents' attitudes toward school and their intelligence were measured using Wechsler Intelligence Scale for Children—Revised (WISC-R) (Wechsler, 1974). Mothers were interviewed regarding their homeless experience and their child's school experience. Reading achievement was measured by Annual Degrees of Reading Power Reading Test. Math skills were measured by The Metropolitan Achievement Test (MAT). Housing history (whether a family had been homeless and for how many months) was assessed. Six aspects of school experience were also measured: whether the child was currently enrolled in school; their current grade; the number of times they had been held back (i.e. grade retention); the number of schools they attended since kindergarten; the number of schools they attended since their initial interview; and, the mother's rating of the child's school experience. Results demonstrated that higher rates of school mobility (changing schools) in homeless youth were associated with higher rates of grade retention, or being held back a grade (Rafferty et al., 2004).

Mobility has been difficult to define and quantify. Dimensions such as cause, distance, amount, recency, and location have been included by researchers; however, the number of moves has been the most frequently specified mobility factor. School mobility and residential mobility are different in that a change of address does not necessitate a change in school (Heinlein & Shinn, 2000). In Rafferty et al.'s (2004) study, mobility was measured by changes in school. On average, formerly homeless students had attended 4.2 schools since kindergarten, while peers

who had never been homeless had attended 3.1 schools since kindergarten (Rafferty et al., 2004). Formerly homeless and consistently housed youth had comparable cognitive ability; however, consistently housed peers had higher reading (41.44) and math (45.33) scores compared to their formerly homeless peers' scores in reading (37.22) and math (38.33). Students who were never homeless achieved above grade-level in math (31%) and reading (44%) compared to students who were previously homeless, who achieved 20% and 28%, respectively (Rafferty et al., 2004).

Rafferty et al. (2004) demonstrated that grade retention due to school mobility in the formerly homeless youth had long-term effects on academic achievement. High rates of school mobility resulted in high rates of grade retention. Formerly homeless students repeated more grades and had a poorer overall school experience than their never homeless peers. Furthermore, it was found that the relationship between grade retention and the rate of drop-out in homeless youth was strong. Murphy (2011) reported that many studies have stated that on average, 30% of homeless students would repeat a grade. Furthermore, several studies (Murphy, 2011; Rafferty, 1995; Rafferty et al., 2004) found that grade retention in homeless youth was the single strongest predictor of dropping out. Being held back a grade increased the likelihood of dropping out by 40%. Overall, to assist homeless youth in pursuing education, Rafferty et al. (2004) suggested that there be permanent and affordable housing as well as adequate services that could be readily accessed. He also recommended a national policy on rehousing the homeless and preventing homelessness. Assigning families to shelters and permanent housing that is located close to schools would help reduce grade retention, which would help improve long-term success in school (Rafferty et al., 2004).

Several studies (Davey, Penuel, Allison-Tant, & Rosner, 2000; Rafferty, 1995) have specified that high mobility rates lead to grade retention or failure and drop out. Moving at least

twice during the school year has been linked to poor school performance. James and Lopez (2003) stated that mobility contributed to long-term absences, ranging from several days to weeks and months. Mobility was a major risk factor for dropping out of school. Several studies (Davey et al., 2000; Rafferty et al., 2004; Rafferty, 1995; Yamaguchi, Strawser, & Higgins, 1998) have also stated that grade retention failed to help children catch up with their peers and succeed in school. It contributed to academic failure and behavioural difficulties. Regardless of grade level, students who were retained did not benefit academically. Furthermore, they had poorer self-concept, more problems with social adjustment, and expressed more negative attitudes towards school at the end of the period of retention.

An article by Murphy (2011) also supported the conclusion that homeless children and youth had higher mobility than housed and poor children . In reference to both school and residential mobility, Murphy posited that youth mobility was the greatest barrier to academic achievement. With high mobility rates, there was loss of time followed by a period of adjustment at a new school. With each change in school, it took an estimated four to six months for a student to recover academically (Murphy, 2011; Whitman, Accardo, Boyert & Kendagor, 1990). Hallett (2012) also supported the position that mobility was associated with low rates of educational participation. He also found that the older the youth were during mobility, the greater the impact was on their academic achievement. A number of studies (MacKay & Hughes, 1994; Murphy, 2011; Murphy & Tobin, 2011) have also pointed out that in addition to mobility affecting absences from school, suspension and expulsion (which occurred at higher rates than housed peers) were additional reasons for school absence as they deprived youth of a routine and supportive environment.

Moreover, Davey et al. (2000) also stated that mobility contributed to the loss of and poor development of friendships. This was detrimental to the social life of homeless youth, further interfering with providing a supportive environment. A qualitative study by Moore and McArthur (2011) added that mobility of homeless youth had a significant effect on their social development. Being transient made it difficult for youth to maintain friendships, integrate socially and establish themselves in a new school. High mobility left youth feeling vulnerable; it affected their self-esteem and sense of belonging in the school community. Connectedness, belonging, and participation were essential to integrating youth into school and to achieving success (Moore & McArthur, 2011).

Furthermore, the mobility of homeless youth has detrimental emotional and behavioural effects. Frequent moving contributed to gaps in learning, emotional stress, and behavioural problems (Hallett, 2012; Moore & McArthur, 2011; Rafferty et al., 2004). Mobility jeopardized the opportunity for students to be evaluated for special education programs as they would often leave school before getting the opportunity. The same problem occurred for enrolling in tutoring, supplemental instruction, counselling, and psychological services. Mobility prevented students from benefiting from services that could further their education (Rafferty, 1995; Strawser, Markos, Yamaguchi, & Higgins, 2000; Whitman et al., 1990; Yamaguchi et al., 1998). Sleep deprivation was also an important consequence of frequent moves. It posed risks for physical and mental health problems, depression and low self-esteem (Rafferty, 1995).

In summary, high mobility rates in homeless youth were associated with lack of school attendance, grade retention, dropping out, and academic failure. Mobility also related to emotional and behavioural problems, risk for physical and mental health problems, and sleep deprivation. High mobility disrupted special education and counseling opportunities as well as

the ability for youth to integrate socially. Overall, mobility negatively affected youth's ability to participate in school.

Housing

In addition to moving frequently and incurring absences from school, the living arrangements of homeless youth affect their ability to succeed in school. A study by Hallett (2012) investigated the residential context of four adolescents in Los Angeles who lived doubled-up, and the effect their housing situations had on school participation. "Doubled-up", is defined as multiple families being forced to live together as a result of economic crisis. Using observation, in-depth interviews, and document analysis, the researchers assessed how youth and families discussed and supported education. Hallett (2012) found that in merged households—meaning more than one family living in the same space and sharing the responsibilities equally (groceries, bills, entertainment, vehicles, clothes, and school supplies)—there was more support for academic achievement. The sharing of responsibilities allowed more time for parents and elders to supervise youth and provide educational support (Hallett, 2012).

Families responsible for their own household chores and bills (lived in separate households) experienced more stress than families that lived in merged households. Higher stress was due to additional time that primary caregivers spent making sure basic survival needs were met. Ultimately, this caused a reduction in time and energy available to invest in their child's education (Hallett, 2012). In separate households, there was also more interpersonal conflicts and youth were forced to take on adult roles (Murphy, 2011). Several studies showed that by taking on adult roles, the education of younger siblings became a priority. In the adult role, youth took care of younger children, and sometimes their parents as well. Becoming a parent and not having

resources were barriers to education for homeless youth (Hallett, 2012; Heybach & Platt, 1998; James & Lopez, 2003).

In conclusion, living in a merged household, and having a caring role model to monitor the attendance and success of youth, positively affected their academic achievement. In separate households, there was more stress, interpersonal conflicts, and a focus on survival. The absence of a positive mentor changed the youth's role from student to provider. With inadequate resources and less importance placed on school, youth had difficulty participating in their education (Hallett, 2012).

Disrupted family relationships and emotional instability

In addition to the mobility of youth and their housing arrangements influencing school participation, relationships and family dynamics had a substantial effect on the education of youth. Aviles de Bradley (2011) conducted a qualitative study for the purpose of gaining a deeper understanding of what it meant to be homeless and how schools responded to the needs of unaccompanied youth. Assessing the response of schools towards homeless youth was necessary to help enforce The Stewart B. McKinney Homeless Assistance Act of 1987. This law was enacted to protect the educational rights of homeless youth as a result of the family homeless phenomenon during the 1980s in the United States of America. The Act "recognizes a more widespread situation and attempts to address, through federal guidance and funding, the obstacles homeless students face in enrolling, attending, and succeeding in school"(Ableidinger, 2004, p.1).

In Aviles de Bradley's (2011) qualitative study, six youth in grades 9 to 12 who attended Chicago Public Schools (CPS) and were identified by their school administration as homeless (lacking a fixed regular adequate residence) and unaccompanied (not in consistent care of a

parent or guardian) were interviewed. The study revealed that broken families and unstable relationships were more indicative of an unaccompanied youth's ability to navigate school and social environments than the absence of housing. Instability and disruption of family connections caused youth attendance to become sporadic or stop completely (Aviles de Bradley, 2011). Furthermore, these broken relationships led to frequent mobility of youth (Hallett, 2012).

The McKinney Vento Act did not provide schools and service providers with successful approaches to addressing the obstacles students faced in enrolling, attending, and succeeding in school. To assist schools in meeting the needs of homeless youth, a better understanding of their needs is necessary. Collaborations between teachers, service providers, homeless liaisons, and youth themselves can encourage intervention by essential resources and referrals that support youth in their education. A sense of belonging with meaningful interactions for youth between peers and teachers can help prevent absenteeism or complete departure from school. This can provide youth with the opportunity to regularly attend and succeed in school (Aviles de Bradley, 2011).

In addition to the disruptions of family relationships associated with homelessness, Rafferty (1995) highlighted the effects of homelessness on emotional instability, stating that mobility was distressing, putting youth at risk of physical and mental health problems. Separation from home, furniture, and belongings, not knowing where one was going to sleep for the night, or when the next meal would come, was emotionally distressing. Fearing safety in an unknown environment and not being able to do anything to help one's family weakened one's ability to succeed in school. These worries were not easily ignored making it difficult to focus on academic work (Rafferty, 1995).

Parental involvement and homeless youth

The absence of parental involvement has often been cited as a prevalent theme in homeless youth. The literature has illustrated that in broken and homeless families there was a lack of parental involvement in youth education (Dupper & Halter, 1994). Several studies posit that parental involvement in a child's education was linked to academic advancement and that homeless students needed greater parental involvement (Murphy & Tobin, 2011; Rafferty, 1995). Lack of encouragement and assistance with school work, not having an adult to represent youth when dealing with school administration or social services, or not having a mentor after dropping out of school were barriers to attendance (Goldman & La Castra, 2000). Parental resources were allocated for survival rather than for academically stimulating their children. This, coupled with a lack of educational preparation, prevented parents from optimally participating in their child's education (Davey et al., 2000; Moore & McArthur, 2011; Stronge & Hudson, 1999). Parental drug use, alcohol or mental illness also contributed to lack of parental involvement in their child's education (Strawser et al., 2000). Overall, lack of parental support limited the progress of youth in school, and was a barrier to educational opportunities (MacKay & Hughes, 1994; Stronge & Hudson, 1999).

Academic barriers

Issues related to executing the McKinney Vento Act in American schools were noted in several American articles. The purpose of the Act was to address the obstacles faced by homeless students in enrolling, attending, and succeeding in school (Ableidinger, 2004). In 1998, the National Coalition for Homelessness reported that transportation was the number one barrier for children facing homelessness. Transportation was not provided between zones and students could not afford transportation. Some youth were forced outside their school regions causing

discontinuity in their schooling. In addition to lack of transportation, students needed to be enrolled by a legal guardian and have proof of residency. Without fulfilling these requirements, enrollment was delayed or refused until residency was resolved. Obtaining birth certificates and immunization records was also a problem if youth could not afford to pay for immunizations or if birth certificates were lost during times of mobility, which was likely. Lack of academic records also caused inappropriate school placements (Da Costa Nunez & Collignon, 1999; Davey et al., 2000; James & Lopez, 2003; MacKay & Hughes, 1994; Rafferty, 1995; Strawser et al., 2000; Yamaguchi et al., 1998).

In addition to setbacks caused by enrollment policies, the literature also revealed a lack of coordination between schools and shelters as affecting access to education. Dupper and Halter (1994) surveyed directors of homeless shelters and public school personnel (superintendents, principals, school social workers, and teachers) for their perspectives on the barriers that impeded access to school by homeless youth using shelters. Forty-eight percent of the 99 surveys sent out to schools and districts were returned. Of the 68 surveys sent to shelter directors, 49% were returned. Of the school survey responses, 13% of respondents were from secondary schools, 54% from elementary schools, and 33% from the school district.

Dupper and Halter (1994) found that poor coordination between homeless shelters and schools involved a lack of communication between them, and a lack of arranged transportation. Also, methods of tracking students to ensure regular attendance were lacking. Services to assist children in attending school were also not readily available. Schools had inadequate resources to manage lack of food, funds, and school expenses. Despite the Stewart B. McKinney Homeless Assistance Act, accessing school for homeless children and youth living in shelters remained a struggle (Dupper & Halter, 1994).

Stronge and Hudson (1999), along with Da Costa Nunez and Collignon (1999) supported the position that lack of effective coordination of service delivery was a barrier to education. Lack of communication between schools and shelters impeded the education of homeless youth as schools lost track of students making frequent moves, and shelters failed to reach children who had not yet entered the system (i.e. shuffling between the apartments of family and friends). It was necessary for schools to communicate the needs of families to the shelters and for shelters to notify the school districts of any emerging problems (Da Costa Nunez & Collignon, 1999; Stronge & Hudson, 1999).

Goldman and La Castra (2000) looked at the education of homeless youth in Australia and identified that there was a lack of financial resources for post-secondary education which impeded its access by youth. For example, income support payments for homeless youth were substantially less than those for adults and the impact of financial barriers extended to missing excursions or extracurricular activities. Without affordable accommodation for secondary education, opportunities for education were very limited.

In addition to financial barriers to education, Power, Whitty, and Youdell (1999) found that schools themselves created barriers for homeless youth when their funding was changed, resources were lost, or they did not make provisions for additional resources. The government acted as a barrier to education by not resourcing schools with policies to handle the special circumstances of homeless youth. With the combined resistance by schools to accommodate homeless youth and the lack of effective policies by government, educational opportunities for youth were bleak. Both school and government bodies need to be responsible for the treatment and educational opportunities of homeless youth (Power et al., 1999).

Educational development of homeless youth

In addition to the school system posing barriers to education, MacKay and Hughes (1994) and Murphy (2011) noted that 85% of homeless youth who used emergency shelters or drop-in services had indications of learning disabilities or attention deficit disorders. Also noted was that 14% of homeless children were diagnosed with learning disabilities, twice the rate of other children (MacKay & Hughes, 1994; Murphy, 2011). Homeless students also demonstrated skill levels that were barely correlated to their expected age or grade level. Language, cognitive, and behavioural problems were directly related to homelessness (Da Costa Nunez & Collignon, 1999; Stronge & Hudson, 1999; Whitman et al., 1990). Being homeless and away from school posed psychological, developmental, and social barriers to learning (Stronge & Hudson, 1999).

Marginalization of homeless youth

A critical qualitative Canadian study by Dhillon (2011) assessed how being a young homeless woman in Saskatoon, Halifax, and Vancouver intersected with pursuing education. Information was gathered from 118 young women between the ages of 12 and 24. A majority of them did not live with family members and had difficulty securing safe affordable housing. Focus groups and individual interviews were used to collect information about youths' educational experiences. Forty-six of the women or 39% were enrolled in some form of educational program. Dhillon found that the inability to access safe housing affected youth's ability to meet the standard requirements of school such as regular attendance, dress code, school fees, and basic hygiene. Although youth recognized the importance of school in directing their careers, saving their own lives took priority. This meant escaping violence, finding a safe place to live, and accessing food and health care. Consequently, youth ended up living in the moment for basic survival needs (Dhillon, 2011).

In school, absences and the homeless situation of youth were seen as their individual responsibility. Teachers were found to be unsupportive and uncaring about the situations of homeless youth: they did not understand homeless youth or know how to handle health risks such as intravenous drug use, violence, and prostitution. Teachers did not support the drug rehabilitation efforts of students which further impeded their ability to stay drug free and remain in school. Students were judged and stigmatized for being homeless—often scrutinized by teachers and peers—as well as sexually harassed and threatened by their male peers (Dhillon, 2011).

Dhillon (2011) stated that “schools function as a microcosm of what is happening within the larger society and have historically acted as a vehicle for the legitimization of status quo ideas and capitalist state interests, which inevitably extend to the consignment of students” (p. 113). The status quo ultimately impacts the expectations and standards of the educational system. The problem, according to Dhillon (2011), is that the educational system has not been designed for any other student than the middle-class white student. This issue of design is unfavorable to the needs of homeless youth (Dhillon, 2011). The status quo opinion states that it was not the school’s responsibility to assist homeless youth in meeting their needs and getting an education; therefore, this ideology needed to change. In addition to damaging ideologies, culturally it was harder for youth to fit in because their experiences of being homeless were not the same as their peers’ experiences. Youth felt they were living in a different reality while they were in school: being in a different social class caused alienation and disengagement with their peers (Dhillon, 2011).

In summary, Dhillon (2011) stated that the life experiences and educational opportunities of female youth were mediated by intersecting patterns of structural violence which had social

and cultural dimensions. These dimensions involved the negative attitudes of teachers, lack of knowledge about the needs of homeless youth, and stress on the individual to participate in school. By making the individual responsible for school failure as oppose to placing any responsibility on the social and structural forces of the school system, a barrier to education for these youth was created (Dhillon, 2011).

Cultural attitudes towards the homeless are damaging. Homeless youth are marginalized socially, economically, and politically. As a result, there is a sense of alienation, powerlessness, poor sense of belonging, and lack of self-worth in these youth. Homeless youth often feel embarrassed and discouraged to attend school because of the insensitivity of peers and teachers and feeling rejected by them. Indifference to the needs of homeless youth was also a barrier to school attendance and participation. In the educational system, not seeking to really help the homeless resulted from having a poor understanding of their experiences. This poor understanding of their experiences was a persistent barrier to their educational opportunities (Davey et al., 2000; Dupper & Halter, 1994; Goldman & La Castra, 2000; Heybach & Platt, 1998; Power et al., 1999; Stronge & Hudson, 1999; Whitman et al., 1990).

Summary of the Literature Review

When considering the immediate environment of homeless youth, housing instability was the greatest barrier to academic achievement. Mobility led to grade retention, absences, and poor school performance. The longer youth were housed, the more likely they were to participate in school. In addition to this, deficits in positive family relationships, parental support, and mentoring, negatively affected youth's participation in school. Witnessing violence and being a teen parent were other barriers that affected school participation. In addition to this, a majority of homeless youth using emergency shelters or drop-in services had indications of learning

disabilities or attention deficit disorders which posed a challenge to their educational development.

When looking at outside environments that affected youth's education, enrollment policies in school as well as a lack of transportation to school were immediate barriers to attendance. The inadequacy of basic resources such as food, school supplies and money made it difficult for youth to participate in school. Lack of inter-agency collaboration, funding, and effective policy guidelines were large systemic barriers. Finally, when looking at dominant ideologies in the school environment, the attitude that education was the youth's responsibility, and a lack of awareness of homeless students' needs, created an environment that was unsupportive and discriminatory.

Theoretical Model

Bronfenbrenner's theory of ecological development (1979) is the overarching theoretical model guiding this analysis. It posits that the ecological environment is composed of three levels that influence human development: 1) the innermost level, our immediate setting, i.e. home, school; 2) relations between settings; and 3) events occurring in settings where the person is not even present. All three levels of the ecological environment are influenced by the culture and ideologies that permeate throughout the environment. The ecological developmental model also incorporates that interrelations within immediate settings (microsystems), interrelations between settings (mesosystems), events that influence individuals in their settings (exosystems), and the ideologies and cultures that permeate through the ecological system (macrosystem), all have an effect on the developing person over time (Bronfenbrenner, 1979).

The Ecological Resilience Prediction Model (ERPM) as presented in the Hyman et al. (2011) study will also be used to guide this analysis. In this study, the ERPM model was

influenced by Bronfenbrenner's ecological developmental model as it acknowledged the influence of individual, social, and community-level variables in predicting educational resilience. Educational resilience meant that in the midst of the challenges of being homeless, youth were positively adapting to their situation to attain education. In the ERPM model, educational resilience was measured by school participation, that is, whether youth attended school or not (Hyman et al., 2011).

In the Hyman et al. (2011) study, longer durations of rehousing, and being female, were significant positive individual-level predictors of educational resilience; however, empowerment and active coping were not significant predictors of educational resilience. Protective internal resources that enhanced positive adaptation in young people involved: regaining stable housing; entering the workforce; and overcoming challenges with mental health functioning. Social predictors such as having a positive mentor, and having larger social networks were not found to be significant predictors of educational resilience. Youth who were not in school at follow-up reported an increase in satisfaction with social support while youth who were in school reported no change in their satisfaction with social support. "Social service use", the community predictor, was not a significant predictor of educational resilience (Hyman et al., 2011). This study will look at the outcomes of both current enrollment in school, and past high school completion in order to fully understand how homelessness affects academic achievement.

References

- Ableidinger, J. D. (2004). Educational rights of homeless children and youths: *The McKinney-Vento Act and its impact on North Carolina's schools*. Retrieved from <http://sogpubs.unc.edu/electronicversions/slb/slbfal04/article1.pdf>.
- Aviles de Bradley, A. M. (2011). Unaccompanied homeless youth: Intersections of homelessness, school experiences and educational policy. *Child & Youth Services, 32*, 155–172.
doi:10.1080/0145935X.2011.583176.
- Boivin, J.F., Roy, E., Haley, N., & Galbaud du Fort, G. (2009). *The health of street youth in Canada: A review of the literature* [E-book]. Retrieved from <http://homelesshub.org/ResourceFiles/Documents/2.4%20Boivin%20et%20al%20-%20Health%20of%20Street%20Youth.pdf>.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, Mass: Harvard University Press.
- Canadian Homelessness Research Network (2012). Canadian definition of homelessness. Retrieved from <http://www.homelesshub.ca/ResourceFiles/05092012CHRNhomelessdefinition.pdf>.
- Da Costa Nunez, R., & Collignon, K. (1999). Communities of learning: A bridge from poverty and homelessness to education and stability. *Journal for a Just and Caring Education, 5*(1), 72–87.

- Davey, T. L., Penuel, W. R., Allison-Tant, E., & Rosner, A. M. (2000). The HERO program: A case for school social work services. *Social Work in Education, 22*(3), 177–191. Retrieved from <http://web.ebscohost.com/ehost/detail?sid=b7699757-ee7f-48ef-8696-0d8f61bd8244%40sessionmgr11&vid=4&hid=126&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=3421373>.
- Dhillon, J. (2011). Social exclusion, gender, and access to education in Canada: Narrative accounts from girls on the street. *Feminist Formations, 23*, 110–134. doi:10.1353/ff.2011.0041.
- Dupper, D. R., & Halter, A. P. (1994). Barriers in educating children from homeless shelters: Perspectives of school and shelter staff. *Social Work in Education, 16*(1), 39–45. Retrieved from <http://web.ebscohost.com/ehost/detail?vid=3&hid=122&sid=391e5bdd-1d8a-4801-be81-1a94c8622909%40sessionmgr111&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=9606216644>.
- Evenson, J., & Barr, C. (2009). Youth homelessness in Canada: The road to solution. Retrieved from http://www.raisingtheroof.org/RaisingTheRoof/media/RaisingTheRoofMedia/Documents/RoadtoSolutions_fullrept_english.pdf.
- Goldman, J. D. G., & La Castra, L. D. (2000). The education of homeless youth in Australia. *Youth Studies Australia, 19*(2), 43–50. Retrieved from <http://web.ebscohost.com/ehost/detail?sid=47bae671-02e5-4444-90c3->

cbb02f1ad22a%40sessionmgr4&vid=6&hid=24&bdata=JnNpdGU9ZWwhvc3QtbG12ZQ%3d%3d#db=a9h&AN=3264658.

Hallett, R. E. (2012). Living doubled-up: Influence of residential environment on educational participation. *Education and Urban Society, 44*, 371–391. doi: 10.1177/0013124510392778.

Heybach, L.M., & Platt, S. E. (1998). Enforcing the educational rights of homeless children and youth: Focus on Chicago. *Clearinghouse Review, 32*(1-2), 21-39. Retrieved from <http://www.heinonline.org/HOL/Page?page=21&handle=hein.journals/clear32&collection=journals>.

Hyman, S., Aubry, T., & Klodawsky, F. (2011). Resilient educational outcomes: Participation in school by youth with histories of homelessness. *Youth & Society, 43*, 253–273. doi: 10.1177/0044118X10365354.

James, B. W., & Lopez, P. D. (2003). Transporting homeless students to increase stability: A case study of two Texas districts. *The Journal of Negro Education, 72*, 126-140. doi: 10.2307/3211296.

Kennedy, A. C. (2007). Homelessness, violence exposure, and school participation among urban adolescent mothers. *Journal of Community Psychology, 35*, 639–654. doi:10.1002/jcop.20169.

MacKay, K. A., & Hughes, D. M. (1994). Educating runaway and homeless youths: Perspective of the National Network of Runaway and Youth Services. *Social Work in Education, 16*(1),

55–63. Retrieved from <http://web.ebscohost.com/ehost/detail?sid=b7699757-ee7f-48ef-8696-0d8f61bd8244%40sessionmgr11&vid=4&hid=7&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=9606216646>.

Mikkonen, J., & Raphael, D. (2010). *Social determinants of health: The Canadian facts*.

Retrieved from http://www.thecanadianfacts.org/The_Canadian_Facts.pdf.

Moore, T., & McArthur, M. (2011). 'Good for kids': Children who have been homeless talk about school. *Australian Journal of Education*, 55(2), 147–160. Retrieved from <http://search.proquest.com/education/docview/963778068/fulltextPDF/137751668585049BEAA/66?accountid=15115#>.

Murphy, J. (2011). Homeless children and youth at risk: The educational impact of displacement. *Journal of Education for Students Placed at Risk*, 16, 38–55.
doi:10.1080/10824669.2011.554143.

Murphy, J.F., & Tobin, K.J. (2011). Homelessness comes to school. *Phi Delta Kappa*, 93(3), 32–37. Retrieved from <http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=4&sid=da5e8158-26b1-404c-8486-fee04ea569c3%40sessionmgr12&hid=10>.

Power, S., Whitty, G., & Youdell, D. (1999). Homelessness and education in England: Toward a social reaction model. *Journal for a Just and Caring Education*, 5, 108–125.

- Rachlis, B. S., Wood, E., Zhang, R., Montaner, J. S. G., & Kerr, T. (2009). High rates of homelessness among a cohort of street-involved youth. *Health & Place, 15*, 10–17. doi:10.1016/j.healthplace.2008.01.008.
- Rafferty, Y. (1995). The legal rights and educational problems of homeless children and youth. *Educational Evaluation and Policy Analysis, 17*(1), 39–61. Retrieved from <http://www.jstor.org/openurl?volume=17&date=1995&spage=39&issn=01623737&issue=1>.
- Rafferty, Y., Shinn, M., & Weitzman, B. C. (2004). Academic achievement among formerly homeless adolescents and their continuously housed peers. *Journal of School Psychology, 42*, 179–199. doi:10.1016/j.jsp.2004.02.002.
- Reed-Victor, E., & Stronge, J. H. (2010). Homeless students and resilience: Staff perspectives on individual and environmental factors. *Journal of Children and Poverty, 8*, 159–183. doi:10.1080/1079612022000005375.
- Reutter, L., & Kushner, K. E. (2010). ‘Health equity through action on the social determinants of health’: Taking up the challenge in nursing. *Nursing Inquiry, 17*, 269–280. doi:10.1111/j.1440-1800.2010.00500.x.
- Strawser, S., Markos, P. A., Yamaguchi, B. J., & Higgins, K. (2000). A new challenge for school counselors: Children who are homeless. *Professional School Counseling, 3*(3), 162–171. Retrieved from <http://search.proquest.com/docview/213305451/fulltextPDF/1378B75455E7C51A507/3?accountid=15115>.

Stronge, J.H., & Hudson, K. S. (1999). Educating homeless children and youth with dignity and care. *Journal for a Just and Caring Education*, 5(1), 7–18.

The Homeless Hub. (2012). Library. Retrieved from <http://homelesshub.ca/Library/>.

Whitman B.Y., Accardo, P., Boyert. M., & Kendagor, R. (1990). Homelessness and cognitive performance in children: A positive link. *Social Work*, 35(6), 516–519. Retrieved from <http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=3&sid=f88a4e6e-b024-4c4b-b253-0eda26e99a83%40sessionmgr11&hid=10>.

Yamaguchi, B. J., Strawser, S., & Higgins, K. (1998). Children who are homeless: Implications for educational diagnosticians. *Special Services in the Schools*, 13(1/2), 63–83. Retrieved from http://www.tandfonline.com/doi/pdf/10.1300/J008v13n01_04.

Chapter Two

Manuscript

For homeless youth, the pursuit of education is filled with many challenges. This is reflected in the prevalence of Canadian youth who have not completed high school within the past decade. In 2002, of 208 street-involved homeless youth in Toronto who were 24 years and younger, 88% had not graduated from high school (Gaetz, 2002). More recently, Evenson and Barr (2009) found that out of 324 street-involved youth in Toronto, Calgary, and St. John's between the ages of 12-29, 62% had dropped out of school (Evenson & Barr, 2009) Although not a direct comparison, Statistics Canada's estimates of high school dropout rates indicate that 8.5% of Canadians between the ages of 20-24 had dropped out of high school in 2009/2010 (i.e. this is the proportion of all Canadians aged 20-24 who had not already graduated from high school and were no longer attending high school that year) (McMullen & Gilmore, 2010).

Education is a social determinant of health, meaning it influences the living conditions that shape health. It is a critical building block for employment, economic resources, and the ability to navigate the social systems of life (Mikkonen & Raphael, 2010; Murphy & Tobin, 2011). Without high school education, youth "generally are less successful at competing for even low wage jobs, and are therefore more likely to be unemployed and for longer periods of time"(Gaetz, 2002, p.15). Lack of education in homeless youth unfortunately accompanies negative health risks (Boivin, Roy, Haley, & Galbaud du Fort 2009; Hallett, 2012).

Barriers to academic achievement in homeless youth are embedded in the ecological environment. As defined by Bronfenbrenner (1979), this involves influences from micro, meso, exo, and macro system levels of society. At the microsystem level, individual factors in the immediate environment challenge the education of homeless youth. These factors include:

housing stability; living arrangements; disrupted families; lack of parental involvement; indications of having a learning disability; and having experienced violence. The most common barrier in the microsystem is high mobility rates. Frequent changes of housing and schools made it difficult for youth to attend school and perform at a level equal to their peers. Mobility was associated with grade retention, and strongly predicted dropping out of school (Davey et al., 2000; Hallett, 2012; James & Lopez, 2003; Moore & McArthur, 2011; Murphy, 2011; Rafferty, 1995; Rafferty et al., 2004; Strawser, Markos, Yamaguchi, & Higgins 2000; Whitman, Accardo, Boyert & Kendagor, 1990; Yamaguchi, Strawser, & Higgins, 1998). Furthermore, doubled-up living arrangements where responsibilities were not shared, demanded more time and energy for youth to meet survival needs. This put youth in an adult role where their education was not a priority. On the contrary, living in merged households where responsibilities were shared (resources were jointly purchased and shared) allowed parents and elders more time to supervise youth with their academic work (Hallett, 2012).

Also in the microsystem, homeless youth had significantly higher rates of witnessing parental violence, experiencing physical abuse by a parent or adult caregiver, and partner violence compared to their peers who had not experienced homelessness. The combined risk factors of being homeless, experiencing violence, and being a parent, contributed to lower rates of positive attitudes toward school and overall school participation compared to youth who had not experienced homelessness (Kennedy, 2007).

Many homeless youth came from disrupted families and unstable relationships which caused their school attendance to be sporadic or stop completely. In the microsystem, disrupted families and relationships were more indicative of youth's ability to navigate school and social environments than the absence of housing itself (Aviles de Bradley, 2011). Associated with

broken families was a lack of parental involvement, (Dupper & Halter, 1994) which in turn was related to academic advancement (Murphy & Tobin, 2011; Rafferty, 1995). Absence of mentorship, encouragement, and assistance with school made it difficult for youth to attend (Goldman & La Castra, 2000). Lack of parental involvement limited the progress of youth in school and limited their educational opportunities as well (Mackay & Hughes, 1994).

Also in the microsystem were indications of learning disabilities or attention deficit disorders. Eighty five percent of homeless youth who used emergency shelters or drop-in services had indications of these disorders (MacKay & Hughes, 1994). Language, cognitive, and behavioural problems were also directly related to homelessness as skill levels barely correlated with their expected age or grade level. These developmental and psychological factors were generally found to be barriers to learning (Da Costa Nunez & Collignon, 1999; Stronge & Hudson, 1999; Whitman et al., 1990).

In the mesosystem were processes between homeless youth and institutions that affected the acquisition of education. This involved policies and processes within the school environment (Bronfenbrenner, 1979). There was lack of transportation for youth who moved outside their school zone. This caused youth to change schools, which disrupted their education. Homeless youth also had difficulty enrolling in schools without having a legal guardian and proof of residency. The inability to provide required birth certificates and immunizations due to lost documents or lack of funds to pay for their processing, inhibited school enrollment (Da Costa Nunez & Collignon, 1999; Davey et al., 2000; James & Lopez, 2003; MacKay & Hughes, 1994; Rafferty, 1995; Strawser et al., 2000; Yamaguchi, Strawser, & Higgins, 1998).

In the exosystem level were organizations that affected the education of youth but did not interact with youth directly (Bronfenbrenner, 1979). Lack of communication between schools

and shelters impeded the education of homeless youth. Without regular methods of tracking mobile youth, schools could not ensure their regular attendance. It was also necessary for schools to communicate the needs of their students to the shelters and for shelters to notify the districts about any challenges students had (Dupper & Halter, 1994; Da Costa Nunez & Collignon, 1999; Stronge & Hudson, 1999). Schools also had inadequate resources such as food, and funds for school expenses that homeless youth needed (Dupper & Halter, 1994).

Further exosystem level barriers were lack of financial resources for post-secondary education and inadequate income support payments for homeless youth (Goldman & La Castra, 2000). Schools created barriers by being resistant to providing funding and other resources. Some schools lost resources, had their funding changed, or did not access additional resources. The government acted as a barrier by not resourcing schools with policies to handle the special circumstances of homeless youth. Ultimately, lack of support from schools and government were barriers to educational opportunities (Power, Whitty, & Youdell, 1999).

On a macrosystem level, stigma towards homeless youth as well as the personal beliefs of school personnel impacted the educational pursuits of these youth. School failure was seen as the individual's responsibility rather than being affected by the social and structural forces of the educational system. These forces were lack of awareness of the needs of homeless students, and unsupportive and caring attitudes towards these needs (Dhillon, 2011). Schools were designed to educate the housed youth and not the homeless youth. Structural violence negatively affected youth's participation in school. Ultimately, youth were marginalized socially, economically, and politically. As a result, there was a sense of alienation, powerlessness, and a poor sense of belonging (Davey et al., 2000; Dhillon, 2011; Dupper & Halter, 1994; Goldman & La Castra, 2000; Whitman et al., 1990).

Purpose of the Study

The purpose of this study was to explore the relationships between multiple ecological factors on the academic achievement of homeless youth who have a mental health disorder with or without a substance use disorder. Based on the literature reviewed, information on barriers to education in Canadian homeless youth is limited. Additionally, we do not have a good understanding of what variables associated with homelessness are most predictive of academic achievement. The main research question is: What ecological factors experienced by homeless youth are most predictive of academic achievement? Education provides a healthier lifestyle and better access to societal and economic resources (Mikkonen & Raphael, 2010). Knowing this, it is important to understand and prevent barriers to education.

This study focuses on the following barriers to academic achievement: housing stability; victimization; satisfaction with family relations; social competence; health and social service use; and access to care. These variables represent several ecological factors that affect academic achievement. The selection of these variables was guided by the ecological developmental theory by Bronfenbrenner (1979) and the ERPM model by Hyman, Aubry, & Klodawsky (2011). These variables were also selected because of the prevalence of their relationship with academic achievement in the literature.

Statement of Research Hypotheses

The ecological developmental model by Bronfenbrenner (1979) and the ERPM model by Hyman et al. (2011) along with the literature review guided the development of this study's hypotheses. These hypotheses predict how certain variables in the microsystem and mesosystem of homeless youth relate to their academic achievement. The hypotheses stating that no significant relationship will be found are based on Hyman et al.'s (2011) study that also reported no significant relationship. The overarching hypothesis is that housing stability will be the strongest predictor of academic achievement in comparison to all other independent variables in the study.

Microsystem Predictors

1. Students who have completed high school or are currently in school will have been housed longer in the past two years compared to youth who did not complete high school and are not currently in school.
2. Students who have completed high school or are currently in school will have had fewer moves in the past two years compared to youth who did not complete high school or are not currently in school
3. There will be an inverse relationship between victimization and academic achievement, whereby participants who experienced victimization will have less academic achievement.
4. There will be an inverse relationship between satisfaction with family relations and academic achievement, whereby participants with academic achievement will be less satisfied with family relations.

5. There will be no significant relationship between social competence and academic achievement.

Mesosystem Predictors

6. There will be no significant relationship between health and social service use and academic achievement.
7. There will be no significant relationship between access to care and academic achievement.

Methodology

A quantitative secondary analysis was performed using data obtained from The Youth Matters in London: Mental Health, Addiction and Homelessness study. This study is currently being conducted between 2010 and 2014. The purpose of the Youth Matters study is to understand the service delivery preferences of homeless youth who have a mental health disorder with or without a substance use disorder, and the outcome of their service choices. Quantitative data were collected from the first interviews of 187 youth. Variables used in the current study were created using items from the Youth Matters questionnaires. The composition of these variables can be found in Appendix B. Variable selection is in the context of Bronfenbrenner's 1979 ecological developmental model. Figure 1 depicts the variables used in this study and how they fit into the model.

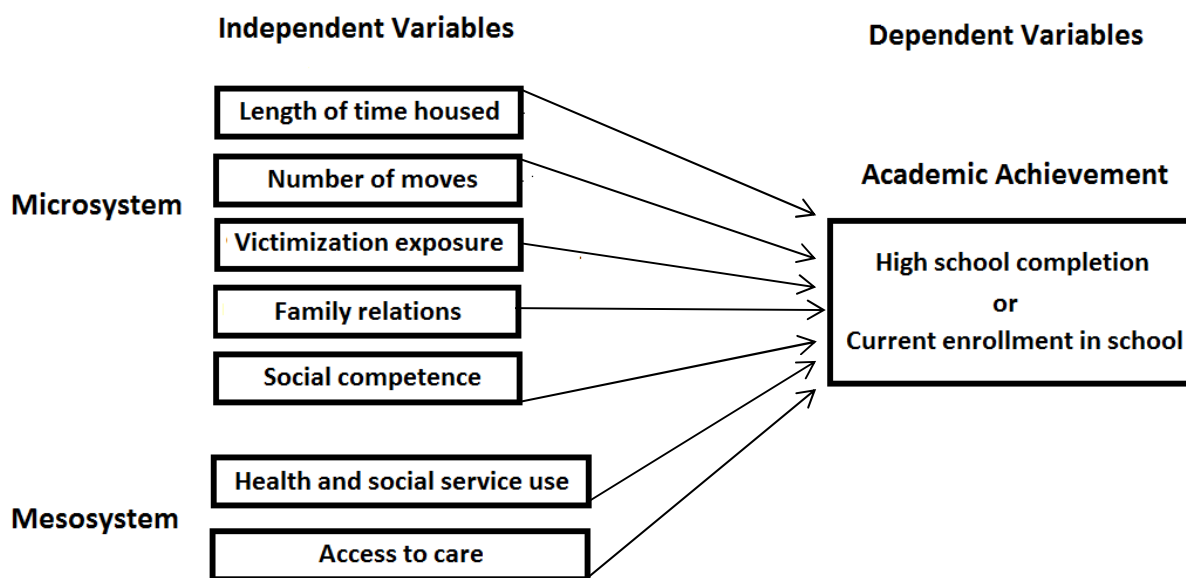


Figure 1. The effects of microsystem and mesosystem variables on academic achievement. Study variables are adopted from questionnaires used in the Youth Matters in London: Mental Health, Addiction and Homelessness study. Variables are modeled according to Bronfenbrenner's (1979) ecological theory of human development.

Research Design

The analyses in this study were quantitative. Pearson correlations and Spearman's rho tests, t-tests, and Mann-Whitney tests were first used to test relationships between all variables in the study. Chi-square tests, t-tests, and Mann-Whitney tests were then used to analyze the relationships between all independent variables and the outcome variables. Logistic regression was used to determine what independent variables were significant predictors of academic achievement and contributed significantly to the explained variance in academic achievement (Munro, 2005b).

Setting and Sample

The setting of the Youth Matters study was London, Ontario. Interviews were held at the Youth Action Centre and community locations such as marketplaces, coffee shops, and participants' places of residence. The target population included youth between the ages of 16 and 25. Inclusion criteria were that youth: 1) met the definition of absolute homelessness (having no fixed address for more than seven nights and little likelihood of obtaining accommodation in the upcoming month) (Tolomiczenko & Goering, 2001) or precariously housed (those whose primary residence was a single room occupancy (SRO), rooming house, or hotel/motel or in the past year had two or more episodes of being absolutely homeless; and, 2) also had a serious mental disorder with or without a co-existing substance use disorder (a formal diagnosis at the time of entry into the project was not a requirement). A total of one hundred and eighty-seven youth were recruited (Forchuk et al., 2009).

Non-probability sampling methods were used in the Youth Matters study. Convenience sampling was used where youth who met inclusion criteria were sought at youth programs, mental health services and shelters. Youth who were not involved in formal services were

recruited by connecting with coffee houses, and drop-in centres. Snowballing was used as participants referred people who met eligibility criteria (Polit & Beck, 2008). The focus was on recruiting youth who were not formally participating in existing mental health treatment services or homelessness diversion programs. A diverse sample was recruited of youth using or not using the shelter system; involved to some degree in the sex trade; and struggling with addiction or not. The sample was also diverse in including homeless youth living with or without their families (this included their own or their parents). To promote retention, numerous contacts such as family, friends and service providers were obtained upon enrollment. A \$20 honorarium was given to each participant at each data collection point (Forchuk et al., 2009).

Data Collection

Data were obtained through quantitative self-report questionnaires from the first interviews of participants in the Youth Matters study. For the purpose of making comparisons, many of the questionnaires used in the Youth Matters study had also been used in the “At Home/ Chez Soi” project of the Mental Health Commission of Canada by Goering et al. (2011). Six questionnaires from the Youth Matters study were used to create the variables in the current study. These questionnaires included: The Housing History Survey; Health, Social, Justice Service Use (HSJSU); Quality of Life Inventory 20; Multnomah Community Ability Scale (MCAS) (Barker, Barron, McFarland, & Bigelow, 1994); Access; and Demographics, Service & Housing History. These questionnaires can be found in Appendices C through H.

Measures

Demographic questionnaire. The demographic information collected included age, number of years of school completed (not counting kindergarten), sex, marital status, number of children under the age of 18, level of education, and primary diagnosis.

Housing stability. Housing stability was defined as “the duration of stay in housing or the number of disruptions in housing status over a period of time such as 6 months or 1 year” (Sylvestre, Ollenberg, & Trainor, 2009, p. 197). The housing stability measures were adopted from the Housing History Survey in the Youth Matters study. This survey is a product of the Residential Timeline Follow-Back Inventory (Residential TLFB Inventory). It retrospectively assesses each respondent's residential history in chronological order (Tsemberis, McHugo, Williams, Hanrahan, & Stefancic, 2007). Two elements of the Housing History Survey were used to measure housing stability: length of time housed in the past two years; and the number of times moved (mobility) in the past two years. Length of time housed was calculated by assessing how long participants stayed at each address that they had occupied within the past two years; if one stay lasted beyond the two year period, it was included in the total length of time housed. In terms of the validity of the Residential TLFB Inventory, Tsemberis et al. (2007) found that the average number of days reported by participants and agencies for each residential category was similar across two sources. The Pearson r correlation coefficients between agency and participant reports were high, ranging from 0.84 for stable housing to 0.92 for literal homelessness. In terms of the reliability of the Residential TLFB Inventory, test-retest reliability coefficients were high across the residential outcome measures. The reported intra-class correlation coefficient ranged from 0.80-0.93 (Tsemberis et al., 2007).

Victimization. Victimization is “a social condition of oppression and power, in the broadest sense, social victimization can be considered as occurring when any individual is adversely affected by some aspect of society over which he or she has little or no control” (Yin, 1985, p. 4). Victimization was measured using five self-report Likert scale questions from the victimization section of the Health Social Justice Service Use instrument (HSJSU). The type of victimization accounted for was criminal victimization, which includes “burglary, assault, and theft” (Yin, 1985, p. 5). Questions for example included: "During the past 6 months, did anyone take or try to take something from you by force or threat of force?"; and "In the past 6 months, did anyone hit or attack you (by attack we mean anything from being hit, slapped, pushed or grabbed to being shot or beaten)?" Responses included “yes”, “no”, “don’t know”, or “declined”. The HSJSU instrument has been used in the Mental Health Commission of Canada “At Home/ Chez Soi” project (Goering et al., 2011) with a similar population but has not been specifically tested for psychometric properties. The victimization variable had a Cronbach alpha of .622, showing medium internal consistency.

Family relations. Family relations are a subsection of the Quality of Life Inventory (QOLI). The QOLI assesses the circumstances of persons with severe mental illness in terms of what they are feeling (subjective) and what they do and experience (objective). “There are 7 subjective scales (living situation, everyday activities, family, social relationships, finances, safety and satisfaction with life in general) and 4 objective scales (everyday activities, enough money, family contacts and contacts with friends)” (Goering et al., 2011, p. 16). The Quality of Life Inventory 20 (QOL20) which was used in the Youth Matters study, focuses on the subjective experiences of participants (Uttaro & Lehman, 1999). It was created using item-

response theory and the internal consistency was retained to that of the original QOLI (Goering et al., 2011).

The family relations sub-sections include four 7-point Likert scale questions. Questions include: “How do you feel about your family in general?”; “How do you feel about how often you have contact with your family?”; “How do you feel about the way you and your family act towards each other?”; and “How do you feel about the way things are in general between you and your family?” Scores ranged from, “1” (terrible) to “7” (delighted). This scale’s ratings can be found in Appendix I. The family relation sub-section has a Cronbach alpha of 0.88 (Goering et al. 2011), showing high internal consistency. In this study, the family relations variable had a Cronbach alpha of 0.843, also showing high internal consistency.

Social competence. Social competence was defined as the “capacity of your client to engage in appropriate interpersonal relations and culturally meaningful activity” (Barker et al., 1944, p. 381). The Social competence variable is a subsection of The Multnomah Community Ability Scale (MCAS). MCAS is a 17-item instrument that measures the level of functioning of chronically mentally ill persons who live in the community. MCAS measures level of disability, which can be used to determine a course of action for the participant. The internal consistency of MCAS was reported to have a Cronbach alpha of 0.87, which demonstrates high internal consistency (Hendryx, Dyck, McBride, & Whitbeck, 2001).

Social competence involved five items: 1) Social acceptability, “In general, what are other people’s reactions to the participant?”; 2) Social interest, “How frequently does the participant initiate social contact or respond to others’ initiation of social contact?”; 3) Social effectiveness, “How effectively does the participant interact with others?”; 4) Social network, “How extensive is the participant’s social support network?”; and 5) Meaningful activity, “How

frequently is the participant involved in meaningful activities that are satisfying to him or her?” Responses are rated on a 5-point Likert scale. An example of this scale’s ratings can be found in Appendix I. The Cronbach alpha for these items is reported at 0.81, showing high internal consistency for measuring social competence (Hendryx et al., 2001; Polit & Beck, 2008). In this study, a Cronbach alpha of 0.783 was reported for these five items, also showing high internal consistency.

Health and social service use. Social service utilization measured the frequency and use of social services that can include: homeless shelters; community resource and health centers; addictions programs; crisis counseling; religious organizations; drop-ins; First Nations/Inuit/Métis organizations; supportive housing services; legal services; disability organizations; and food banks (Hyman et al., 2011). Health and social service use was measured using 10 Likert-type questions from the ‘health and social service use’ section of the HSJSU instrument. Questions included: “Have you talked on the phone about your health, housing, or other needs with a health or social services provider (In past month) (not just setting an appointment and not including crisis or health line calls)?”; “Have you seen a health or social services provider at his or her office? (In past month)”; “Have you been to any drop-in centres, community meal centres, or meal programs (not overnight) (In past 6 months)?” What was recorded was the number of times these services were used. The HSJSU instrument has been used in the Mental Health Commission of Canada “At Home/ Chez Soi” project (Goering et al., 2011) with a similar population but has not been specifically tested for psychometric properties.

Access to care. Access to care is defined as having universal and equitable access to health care services. It involves individual access to the appropriate health care professional within an appropriate time frame, and receiving appropriate care (Peter, Sweatman, & Carlin,

2008; Smith, Jacobson, & Yiu, 2008). Access to care was assessed using three Likert scale questions from the Access questionnaire: 1) “Do you have a regular medical doctor? (By regular medical doctor we mean a family doctor or GP who is familiar with you and your medical history); 2) “Is there a place that you usually go to when you are sick or need advice about your health?”; and 3) “In the past 6 months, was there ever a time when you felt you needed health care but didn’t receive it?” Responses to these questions included: “yes”; “no”; “don’t know”; or “declined”. Items from the Access questionnaire have been used in the Mental Health Commission of Canada “At Home/ Chez Soi” project (Goering et al., 2011) with a similar population, but have not been specifically tested for psychometric properties.

Academic achievement. Academic achievement, the dependent variable is defined as a “task-oriented behaviour that allows the individual’s performance to be evaluated to some internally- or externally-imposed criterion. It involves the individual in competing with others, or some otherwise standard of excellence” (Low, 2001, p. 36). In this study, academic achievement was measured in two ways: 1) current enrollment in school; and 2) high school completion. Data were adopted from the demographic questionnaire. Current enrollment in school was dichotomized (yes/no) so that subjects enrolled for at least one hour of school per week were considered enrolled. High school completion was also dichotomized (yes/no). Participants that “completed grades 5 to 8”, “attended high school-not completed”, or “attended a business, trade, or technical school” were reported not to have completed high school (most trade schools and community colleges in London did not require a high school diploma to enroll). Participants who “completed high school” or “attended university-not completed” were classified as completing high school. Only participants 18 years and older (150 participants) were assessed for high school completion; since participants 17 years and younger were not expected to have completed

high school. A total sample of 187 participants was assessed for current enrollment in school, which could have included attending: high school; post-secondary school; business, trade, or technical school; or, an alternative school.

Data Analysis

Data were analyzed using IBM Statistical Product and Service Solutions (SPSS), a statistical analysis software program. General relationships between independent variables were tested. Pearson correlations tested the strength of relationships between normally distributed variables, while the Spearman's rho, a non-parametric counterpart of the Pearson correlation, tested relationships between skewed variables (Jaccard & Becker, 1990; Munro, 2005a). To test the difference between groups on the normally distributed ratio variables, t-tests were used, while the Mann-Whitney test was the non-parametric comparison. The Mann-Whitney test converts scores into mean ranks, which are then compared (Munro, 2005c, 2005d).

Both dependent variables: high school completion and current enrollment in school had yes or no responses as outcomes. T-tests were used to compare mean scores of normally distributed independent variables on the dependent variables. The Mann-Whitney test was used to analyze relationships between skewed independent variables and the dependent variables. The chi-square test, the appropriate method for testing nominal variables was used to test relationships between nominal independent and dependent variables (Munro, 2005c). Logistic regression was used to test the overarching hypothesis that housing stability would be the strongest predictor of academic achievement. Logistic regression is a statistical model that predicts the likelihood of an outcome being present or not present, given certain conditions. It uses the known strength of the relationships found between the outcome variable (in this case academic achievement) and its predictors (Munro, 2005b). The odds ratio (OR) “the probability

of occurrence over the probability of nonoccurrence” (Munro, 2005b, p. 303) was used to delineate this likelihood.

Protection of Human Rights

The Youth Matters study was granted ethics approval by The University of Western Ontario Research Ethics Board for Health Sciences Research. Formal ethics approval was not required for this secondary analysis, according to article 2.1 of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada, 2010). Participation in the study was voluntary. Informed consent was obtained from participants who were informed both verbally and in writing of the purpose of the study, potential benefits, participants’ rights, and risks of the study. Participants were required to sign a letter of consent before participating in the study. Participants’ identities were protected as no identifying information was documented. Data were secured in a locked office; password protected with only approved access to limited people. This secondary analysis used de-identifying data (Lawson Health Research Institute, 2010).

Results

Sample Descriptions

Table 1 provides a summary of the descriptive statistics. Of the 187 participants recruited from the first interviews, 33.2% (62) were female, 65.2% (122) were male, and 1.6% (3) replied “other”. The average age of participants was 20 years ($SD=2.5$). The most common primary diagnoses were substance-related disorders, which affected 34.2% of the participants, followed by mood disorders, which affected 31.6% of the participants. Disorders of childhood/adolescence

affected 13.4% of the participants, and anxiety disorders affected 11.8% of the participants. Schizophrenia affected the least amount of participants, at 2.7%, followed by developmental disorders at 0.5%. Six percent of (5.9%) the primary diagnoses were unknown or other.

In terms of years of school completed since kindergarten, 78.1% of the participants had completed 7 to 11 years of school, while 21.9% had completed 12 to 16 years of school. The average number of years of school completed was 10.39 years (SD=1.6). When looking at the education level of the full sample, 3.7% of the participants attended business, trade, or technical school; and 6.4% completed grades 5-8. Seventy-three percent of the participants (73.3%) had attended high school but did not complete; and only 27 participants had completed high school (14.4%). Furthermore, four participants (2.1%) reported having attended university. Appendix J, Table J1 includes descriptive statistics for the education levels of participants who were 18 years and older. These are the participants who were included in the analysis of high school completion.

Participant marital status was mostly single, never-married (79.8%) compared with 20.2% who cohabited with a partner. In terms of the number of children participants had under the age of 18, 70.8% of them had no children, 26.5% had one or two children, and 2.7% had three or four children.

Table 1

Descriptive Statistics

Variables	Frequency	Percent	Mean (S.D.)
Age			20.4 (2.5)
Years of school completed ^a			10.39 (1.6)
7 –11 years	146	78.1	
12 -16 years	41	21.9	
Sex			
Male	122	65.2	
Female	62	33.2	
Other	3	1.6	
Marital status			
Single, never-married	146	79.8	
Cohabiting with partner	37	20.2	
Number of children			
Zero	131	70.8	
One	39	21.1	
Two	10	5.4	
Three	3	1.6	
Four	2	1.1	
Level of education			
Attended University—not completed	4	2.1	
Completed High School	27	14.4	
Attended High School—not completed	137	73.3	
Attended business, trade, technical school	7	3.7	
Completed Gr 5 to 8	12	6.4	
Primary diagnosis			
Mood disorder	59	31.6	
Schizophrenia	5	2.7	
Anxiety disorder	22	11.8	
Substance-related disorder	64	34.2	
Disorder of childhood/adolescence	25	13.4	
Developmental disorder	1	0.5	
Other	2	1.1	
Unknown	9	4.8	

Note. ^aYears of school completed since kindergarten.

Study Variable Descriptions

Table 2 provides descriptive statistics regarding the microsystem variables. The average length of time housed for participants in the past two years was 163 weeks ($SD=234.14$), or 3.13 years. Fifty-seven percent of the participants were housed for up to 2 years; 27.8% had been housed between 2 to 4 years; 7% had been housed between 4 to 6 years; and 8% had been housed for 6 years or more. Most of the participants were not housed for a full two years before their first interview. Appendix J, Table J2 depicts how many participants were housed for a full two years or not.

When looking at the mobility of participants in the past two years, the average number of moves was 3.7 ($SD=2.2$). Appendix J, Table J3 depicts how many participants made less than four moves in two years compared to four moves or more. In terms of participant's violence exposure in the past six months, more participants experienced two or more victimization exposures (59.4%) compared to participants who experienced one or zero victimization exposures (40.6%).

In terms of participant's satisfaction with their families, it was observed that 52.2% felt positively rather than negatively about their family relations. These participants had scores between 3.75 to 7; an indication of "mixed", "mostly satisfied", "pleased", and "delighted" feelings. Participants who were unhappy about their family relations (47.8%) had an average score of 1 to 3.5, indicating "terrible", "unhappy", and "mostly dissatisfied" feelings. When assessing the social competence of participants, more participants indicated having effective and extensive, high social competence (55.1%) compared to less effective and low social competence (44.9%).

Table 2 also provides descriptive statistics regarding the mesosystem variables in the study. The number of visits participants made to health and social services over the past six months was evenly distributed. Twenty-five percent of participants had made between 0-9 visits; 24.5% between 10 to 29 visits; 25.5% between 30 to 112 visits; and 25% between 113 and 513 visits.

When assessing access to health care, most of the participants (63.1%) had two or more points of access, while 36.9% had less than two points of access. Access points involved: 1) having a medical doctor; 2) having a place to go when sick or in need of health advice; and 3) there not being a time when health care was needed and not received. Lastly, when looking at the academic achievement of participants, it was found that 80% of participants 18 years and older had not completed high school, while 20% did complete high school. Furthermore, 18.7% of participants were enrolled in school, while 81.3% were not. Table 2 summarizes these results.

Table 2

Study Variable Statistics

Microsystem variables			
Variables	Frequency	Percent	Mean (S.D.)
Length of time housed in 2 years ^a			163.47 (234.14)
Up to 2 years	107	57.2	
More than 2 years but less than 4 years	52	27.8	
More than 4 years but less than 6 years	13	7.0	
6 years or more	15	8.0	
Number of times moved in the last 2 years			3.7 (2.2)
Victimization exposure			
Less than 2 exposures	76	40.6	
2 or more exposures	111	59.4	
Satisfaction with family relations			
Unhappy with family relations	88	47.8	
Pleased with family relations	96	52.2	
Social competence			
Less than effective, low	84	44.9	
Effective to extensive, high	103	55.1	
Mesosystem variables			
Variables	Frequency	Percent	Mean (S.D.)
Health and social service use			
Up to 9 visits	46	25.0	
10 to 29 visits	45	24.5	
30 to 112 visits	47	25.5	
113 to 513 visits	46	25.0	
Access to care			
Less than two points of access	69	36.9	
Two or more points of access	118	63.1	
Academic achievement			
Variables	Frequency	Percent	
High school completion ^b			
No	120	80	
Yes	30	20	
Currently enrolled in school ^c			
No	152	81.3	
Yes	35	18.7	

^a Length of time housed is measured in weeks. ^b High school completion of participants 18 years and older, n=150. High school completion is based on education level. ^c Current enrollment in school for the total sample, n=187.

Relationships between Study Variables

The relationships between all independent variables in the study were tested for significance. Overall, there were four significant relationships found: 1) between satisfaction with family relations and access to care; 2) between satisfaction with family relations and victimization exposure; 3) between victimization exposure and number of moves in the past two years; and 4) between victimization exposure and length of time housed in the past two years. Tables 3-6 display the results of these relationships.

Participants who had two or more points of access to care had a higher average satisfaction with family relations score, 4.0 (SD=1.6) compared to participants who had less than two points of access to care, 3.4 (SD=1.3). This positive relationship was significant, $p=.008$. Table 3 displays these results. Another significant relationship was found where participants with lower satisfaction of family relation scores, had higher rates of victimization exposure. This inverse relationship had a Pearson r coefficient of $-.154$, $p=.037$. A shared variance of 2.37% was indicative of a weak relationship. Table 5 displays the results.

A significant positive relationship was found between housing stability and victimization; particularly between the number of times participants moved in the past two years, and the number of victimization exposures they had. More moves were associated with increased victimization. Table 5 displays these results. Although the strength of the relationship was weak, with a Pearson r coefficient of 0.187 , and a shared variance of 3.5%, the relationship was significant, $p=.010$.

Additionally, there was a significant inverse relationship found between the length of time participants were housed in the previous two years and their victimization exposure. Less time spent housed was associated with increased victimization. Table 6 displays these results.

The strength of the relationship was weak, however, significant at the 0.05 level. The Spearman rho coefficient was $-.145$, $p=0.047$. Overall, the most significant relationships among the independent variables were between number of moves in the past two years and victimization exposure ($p=.010$), and between satisfaction with family relations and access to care ($p=.008$).

Table 7 provides a summary of the relationships between independent variables.

Table 3

T-tests Comparing Number of Times Moved, Victimization Exposure, Satisfaction with Family Relations, and Social Competence on Two Different Levels of Access to Care

Variable	Access to care: less than 2 points	Access to care: 2 or more points	t	df	Sig
Number of times moved	3.93 (2.25)	3.57 (2.19)	1.072	185	.285
Victimization exposure	2.03 (1.42)	1.77 (1.4)	1.208	185	.229
Satisfaction with family relations	3.4 (1.3)	4.0 (1.6)	-2.665**	182	.008
Social competence	3.85 (0.72)	3.9 (0.77)	-.441	185	.659

Note. Number of times moved was measured by the average number of moves in the previous two years. Victimization exposure was measured by the number of victimizations experienced in the past six months. Satisfaction with family relations and social competence were measured by their average score (See Appendix I for scaling of these variables). Standard deviations are in parentheses.

** $p<0.01$

Table 4

Mann-Whitney Tests between Access to Care, Length of Time Housed, and Health and Social Service Use

Variable	Access to care: less than 2 points	Access to care: 2 or more points	Mann-Whitney U	z	df	Sig
Length of time housed	90.17	96.24	3806.500	-.741	185	.459
Health and social service use	97.33	89.74	3596.000	-.931	185	.352

Note. Length of time housed and health and social service use were measured by mean rank scores based on the use of the Mann-Whitney test.

Table 5

Pearson r Correlation Coefficients between Normally Distributed Variables

Variable	1	2	3	4
1. Number of times moved				
2. Victimization exposure	.187**			
3. Satisfaction with family relations	-.122	-.154*		
4. Social competence	.031	-.111	.129	

*p<.05

**p<.01

Table 6

Spearman's Rho Coefficients: Testing Relationships between Skewed Variables

Variable	1	2	3	4	5
1. Number of times moved					
2. Victimization exposure	.152*				
3. Satisfaction with family relations	-.111	-.163*			
4. Social competence	.050	-.100	.123		
5. Length of time housed	-.133	-.145*	-.034	-.011	
6. Health and social service use	-.013	.075	.005	-.078	-.087

Note. Length of time housed and health and social service use were skewed variables, hence the use of the Spearman Rho coefficient.

* $p < .05$

Table 7

Summary Table of the Relationships between Independent Variables

Variable	1	2	3	4	5	6
1.Number of times moved						
2.Victimization exposure	.187**					
3. Satisfaction with family relations	-.122	-.154*				
4.Social competence	.031	-.111	.129			
5. Length of time housed	-.133	-.145*	-.034	-.011		
6. Health and social service use	-.013	.075	.005	-.078	-.087	

Note. Pearson correlation coefficients were reported for the relationships between variables one through four. Length of time housed, and health and social service use were not normally distributed; therefore Spearman rho coefficients were reported for the relationships between these variables and variables one through four. Access to care, a categorical variable, was excluded from this analysis.

*p<.05

**p<.01

Results of the Tests of Hypotheses

Hypothesis one

The first hypothesis predicted that participants who had completed high school or were currently in school would be housed longer than participants who did not complete high school or were not currently in school. The hypothesis was supported when looking at the difference in length of time housed over two years and participant's high school completion. Table 8 reports these results. Participants who completed high school had a higher mean rank for time housed (89.68) compared to participants who did not complete high school (71.95). The Mann-Whitney U test statistic was 1374.500, $p=.046$.

The hypothesis, however, was not supported when looking at the relationship between length of time housed and current enrollment in school. Participants who were not currently enrolled in school had a lower mean rank (93.72) of time housed compared to participants who were enrolled in school (95.20). Table 8 reports these results. The Mann-Whitney U test statistic was 2618.000, $p=.884$. In summary, there was only a significant relationship found between length of time housed and high school completion. No significant difference was found between length of time housed and current enrollment in school.

Table 8

Mann-Whitney Test between Length of Time Housed and Academic Achievement

Variable	No high school	High school	Mann-Whitney U	z	Sig
Length of time housed	71.95	89.68	1374.500*	-2.00	.046
Variable	Not enrolled	Enrolled	Mann-Whitney U	z	Sig
Length of time housed	93.72	95.20	2618.000	-.146	.884

Note. Length of time housed in the past two years was measured by mean rank score based on the use of the Mann-Whitney test.

* $p<.05$

Hypothesis two

The second hypothesis predicted that students who had completed high school or were currently enrolled in school would have made fewer moves in the past two years compared to participants who did not complete high school or were not currently in school. This hypothesis was not supported. Participants who moved an average of 3.9 (SD=2.4) times had completed high school, while participants who moved an average of 3.71 (SD=2.25) times had not. Table 9 reports these results. The t-test statistic was $-.412$, $p=.681$.

When assessing the difference between the number of times participants had moved in the past two years and their current enrollment in school, participants who made an average of

3.85 (SD=2.22) moves were not in school, while participants who made an average of 3.06 (SD=2.13) moves were in school. Table 9 reports these results. The t-test statistic was 1.919, $p=.057$.

Table 9

T-test between Number of Times Moved and Academic Achievement

Variable	No high school	High school	t	df	Sig
Number of times moved	3.71 (2.25)	3.9 (2.4)	-.412	148	.681
Variable	Not enrolled	Enrolled	t	df	Sig
Number of times moved	3.85 (2.22)	3.06 (2.13)	1.919	185	.057

Note. Number of times moved was measured by the average number of times moved in the past two years. Standard deviations are in parentheses.

Hypothesis three

The third hypothesis that predicted there would be an inverse relationship between victimization and academic achievement was not supported. Most of the participants, regardless of their educational status (i.e. completed high school/not completed or enrolled/not enrolled) experienced more than one victimization exposure. The reported chi-square statistic for high school completion was, $\chi^2=3.004$ (df=2), $p=.223$. The reported chi-square statistic for current enrollment in school was $\chi^2=1.563$ (df=2), $p=.458$. Table 10 displays these results.

Table 10

Chi-Square Test between Victimization Exposure and Academic Achievement

Variable	No victimization exposures	One victimization exposure	Two or more victimization exposures	χ^2	Sig
No high school	26 (21.7)	24(20)	70 (58.3)	3.004	.223
High school	8 (26.7)	2 (6.7)	20 (66.7)		
Variable	No victimization exposures	One victimization exposure	Two or more victimization exposures	χ^2	Sig
Not enrolled	38 (25)	27 (17.8)	87 (57.2)	1.563	.458
Enrolled	6(17.1)	5 (14.3)	24 (68.6)		

Note. Victimization exposures were measured by the number of victimizations experienced in the past six months. Row percentages are in parentheses.

Hypothesis four

The fourth hypothesis predicted that there would be an inverse relationship between satisfaction with family relations and academic achievement. This hypothesis was not supported. Participants who did not complete high school had an average family satisfaction score of 3.92 (SD=1.5) while participants who completed high school had an average family satisfaction score of 3.53 (SD=1.77). Table 11 displays the results. The t-test statistic was 1.242, $p=.216$. When assessing the difference between family satisfaction scores and current enrollment in school; participants who were not in school had an average family satisfaction score of 3.8 (SD=1.53) while participants who were in school had a family satisfaction score of 3.74 (SD=1.47). Table 11 displays these results. The t-test statistic was .199, $p=.842$.

Table 11

T-test between Satisfaction with Family Relations and Academic Achievement

Variable	No high school	High school	t	df	Sig
Satisfaction with family relations	3.92 (1.5)	3.53 (1.77)	1.242	145	.216
Variable	Not enrolled	Enrolled	t	df	Sig
Satisfaction with family relations	3.8 (1.53)	3.74 (1.47)	.199	182	.842

Note. Satisfaction with family relations was measured by the average satisfaction score. Scaling for this variable is found in Appendix I. Standard deviations are in parentheses.

Hypothesis five

The fifth hypothesis predicted that there would be no significant relationship between social competence and academic achievement. This hypothesis was supported. Most of the participants with high school completion had effective to extensive, high social competence, while half of the participants without high school had effective to extensive, high social competence. The chi-square statistic, $\chi^2=.962$ (df=1), $p=.327$. Most of the participants enrolled in school, and most of the participants not enrolled in school also had effective to extensive, high social competence. Overall, there were no significant differences in the social competence of participants whether they had academic achievement or not. The chi-square statistic, $\chi^2=.421$, (df=1), $p=.516$. Table 12 displays these results.

Table 12

Chi-Square Test between Social Competence and Academic Achievement

Variable	Less than effective, low social competence	Effective to extensive, high social competence	χ^2	Sig
No high school	60 (50.0)	60 (50.0)	.962	.327
High school	12 (40.0)	18 (60.0)		
Variable	Less than effective, low social competence	Effective to extensive, high social competence	χ^2	Sig
Not enrolled	70 (46.1)	82 (53.9)	.421	.516
Enrolled	14 (40.0)	21 (60.0)		

Note. Social competence was measured by the average social competence score. Scaling for this variable is found in Appendix I. Row percentages are in parentheses.

Hypothesis six

The sixth hypothesis predicted that there would be no significant relationship between health and social service use and academic achievement. This hypothesis was supported.

Participants who completed high school had a higher mean rank for health and social service use (82.70) compared to participants who did not complete high school (71.77). The Mann-Whitney U test statistic was 1494.500, $p=.195$. When assessing enrollment in school, participants who were enrolled had a higher mean rank for health and social service use (102.11) compared to participants who were not enrolled (90.24). The Mann-Whitney U test statistic was 2271.000, $p=.220$. Table 13 reports these results.

Table 13

Mann-Whitney Test between Health and Social Service Use and Academic Achievement

Variable	No High school	High school	Mann-Whitney U	z	Sig
Health and social service use	71.77	82.70	1494.000	-1.296	.195

Variable	Not enrolled	Enrolled	Mann-Whitney U	z	Sig
Health and social service use	90.24	102.11	2271.000	-1.226	.220

Note. Health and social service use was measured by mean rank score based on the use of the Mann Whitney test.

Hypothesis seven

The seventh hypothesis predicted that there would be no significant relationship between access to care and academic achievement. This hypothesis was supported. Among the participants who did not complete high school, 65.8% accessed care in two of the following ways: (having a regular medical doctor; having a place to go when sick or in need of advice about health; and not ever being in a situation where access was needed but not received) while 34.2 % of them accessed care in less than two ways. The chi-square statistic is $\chi^2=2.572$ (df=1), $p=.109$.

When looking at the relationship between access to care and current enrollment in school, of the participants who were not currently enrolled, 61.8 % had more than two points of access to care while 38.2% had less than two points of access to care. The chi-square statistic, $\chi^2=.553$ (df=1), $p=.457$. Table 14 reports these results. A summary of the seven hypotheses tested can be found in Table 15.

Table 14

Chi-Square Test between Access to Care and Academic Achievement

Variable	Access to care: less than 2 points	Access to care: 2 or more points	χ^2	Sig
No high school	41 (34.2)	79 (65.8)	2.572	.109
High school	15 (50.0)	15 (50.0)		
Variable	Access to care: less than 2 points	Access to care: 2 or more points	χ^2	Sig
Not enrolled	58 (38.2)	94 (61.8)	.553	.457
Enrolled	11 (31.4)	24 (68.6)		

Note. Percentages are in parentheses.

Table 15

Summary Table for the Testing of Hypotheses 1-7

Hypothesis Variable	Difference between completing high school or not	Difference between enrolled in school or not	Hypothesis supported
1. Length of time housed	Yes*	No	Yes
2. Number of times moved	No	No	No
3. Victimization exposure	No	No	No
4. Satisfaction with family relations	No	No	No
5. Social competence	No	No	Yes
6. Health and social service use	No	No	Yes
7. Access to care	No	No	Yes

Note. Hypotheses were: 1) students who have completed high school or are currently in school will have been housed longer in the past two years compared to youth who did not complete high school and are not currently in school; 2) students who have completed high school or are currently in school will have had fewer moves in the past two years compared to youth who did not complete high school or are not currently in school; 3) there will be an inverse relationship between victimization and academic achievement, whereby participants who experienced victimization will have less academic achievement; 4) there will be an inverse relationship between satisfaction with family relations and academic achievement, whereby participants with academic achievement will be less satisfied with family relations; 5) there will be no significant relationship between social competence and academic achievement; 6) there will be no significant relationship between health and social service use and academic achievement; and, 7) there will be no significant relationship between access to care and academic achievement.

* $p < .05$

The overarching hypothesis

The overarching hypothesis predicted that housing stability (length of time housed and number of times moved) would be the strongest predictor of academic achievement among all other independent variables. To test this hypothesis, two logistic regression models were run: one between all independent variables and high school completion; and one between all independent variables and current enrollment in school. In both models, confounding variables (sex, age, and number of children under the age of 18) were controlled for by entering them first into the

logistic regression model. This was to provide a more accurate assessment of the relationships between the predictor variables and academic achievement.

Sex was controlled for because of its anticipated effect on academic achievement. Hyman et al. (2011) found that sex was a significant predictor of educational resilience. More females than males reported to be in stable housing and females were four times more likely to participate in school. Age was controlled for due to the fact that older participants were more likely to have completed school. Finally, the number of children participants had was controlled for based on Kennedy's 2007 study which showed that for each additional child homeless or previously homeless participants had, the rate of overall school participation decreased by 49%.

Table 16 displays the results of the first logistic regression model. This model assessed relationships between micro and meso system variables on high school completion. When looking at the effect of the length of time participants were housed in the past two years on their high school completion, the odds of completing high school were ten times more likely for participants who were housed between 4-6 years (OR=10.569) compared with participants who were housed for less than two years. This finding was statistically significant at the 0.01 level, with a p value of 0.006. Participants who were housed between 2-4 years (OR=1.314) or 6 years and more (OR=1.436) were more likely to complete high school than participants who were housed for less than two years. Overall, the longer participants were housed, the more likely they were to complete high school. The number of times moved, victimization exposure, satisfaction with family relations, social competence, health and social service use, and access to care were not found to be significant predictors of high school completion.

Table 17 displays the results of the second logistic regression model. This model assessed the relationships between micro and meso system variables on current enrollment in school.

When assessing the influence of mobility on participants' current enrollment in school, for every move participants made, they were 23% less likely to be enrolled in school (OR=.768). This was statistically significant at the 0.05 level, with a p value of .026. Overall, the more mobile participants were, the less likely they were to be enrolled in school. Length of time housed, victimization exposure, satisfaction with family relations, social competence, health and social service use, and access to care were not found to be significant predictors of current enrollment in school.

Table 16

Logistic Regression Model: Predicting High School Completion, n=132

Predictor	b	Wald	Sig.	OR	95% CI	
					LL	UL
Up to two years housed		7.478	.058			
Two to four years housed	.273	.223	.637	1.314	.423	4.082
Four to six years housed	2.358	7.476	.006	10.569**	1.950	57.290
Six years or more housed	.362	.142	.706	1.436	.219	9.414
Number of times moved	.044	.145	.703	1.045	.835	1.307
No victimization exposures		.898	.638			
One victimization exposure	-.776	.620	.431	.460	.067	3.174
Two or more victimization exposures	.034	.003	.957	1.035	.295	3.626
Satisfaction with family relations	-.235	1.694	.193	.791	.555	1.126
Social competence	.185	.286	.593	1.203	.611	2.367
Up to 9 visits to health and social services		2.418	.490			
10 to 29 visits to health and social services	.288	.127	.721	1.334	.274	6.490
30 to 112 visits to health and social services	.663	.799	.371	1.940	.454	8.302
113 to 513 visits to health and social services	1.041	2.057	.151	2.831	.683	11.735
2 or more points of access to care	-.551	1.100	.294	.576	.206	1.614

Note. Participants 18 years and older were included in this analysis. This analysis controlled for age, sex, and the number of children participants had. CI=confidence interval; LL= lower limit; UL=upper limit. OR=odds ratio.

**p<.01

Table 17

Logistic Regression Model: Predicting Current Enrollment in School, n=167

Predictor	b	Wald	Sig.	OR	95% CI	
					LL	UL
Up to two years housed		4.340	.227			
Two to four years housed	-.765	1.559	.212	.465	.140	1.546
Four to six years housed	1.384	2.181	.140	3.991	.636	25.055
Six years or more housed	-.090	.013	.910	.914	.194	4.317
Number of times moved	-.263	4.949	.026	.768*	.609	.969
No victimization exposures		.778	.678			
One victimization exposure	.178	.051	.821	1.195	.255	5.602
Two or more victimization exposures	.494	.690	.406	1.639	.511	5.256
Satisfaction with family relations	-.049	.087	.769	.952	.686	1.321
Social competence	.335	.966	.326	1.398	.717	2.724
Up to 9 visits to health and social services		2.709	.439			
10 to 29 visits to health and social services	.082	.012	.913	1.086	.251	4.699
30 to 112 visits to health and social services	.940	1.982	.159	2.559	.692	9.469
113 to 513 visits to health and social services	.543	.634	.426	1.721	.452	6.554
2 or more points of access to care	-.017	.001	.974	.984	.358	2.701

Note. The total sample for this study was included in this analysis. This analysis controlled for age, sex, and the number of children participants had. CI=confidence interval; LL= lower limit; UL=upper limit. OR=odds ratio.

*p<.05

In conclusion, when analyzing the results of the hypotheses testing, the only statistically significant relationship found between independent variables and academic achievement was the relationship between the length of time participants were housed and high school completion. Participants who were housed for longer periods of time (mean rank of 90) over the past two years had completed high school; while participants who were housed for shorter periods of time (mean rank of 70) over the past two years did not complete high school ($p=.046$).

In the logistic regression models, the only significant predictors of academic achievement were the length of time participants were housed, and the number of moves they made in the past two years. The most significant predictor of high school completion was length of time housed. Participants who were housed between 4-6 years were ten times more likely to complete high school compared to participants who were housed for less than two years ($p=.006$). The most significant predictor of current enrollment in school was the number of moves participants had made. For every move participants had made, they were 23% less likely to be in school ($p=.026$). On average, participants in the study moved 3.7 ($SD=2.2$) times in the past two years, therefore they were about 65% less likely to be in school.

Discussion

The purpose of this study was to assess for ecological variables most influential to the academic achievement of homeless youth. Variables in the microsystem and the mesosystem involving: housing stability; victimization exposure; satisfaction with family relations; social competence; access to care; and health and social service use were all assessed. Among these variables, length of time housed in the past two years was the only variable significantly related to academic achievement. In terms of the overarching hypothesis, housing stability was the strongest predictor of academic achievement. Additionally, the analyses revealed significant

relationships between microsystem variables. The relationships between these variables and the results of the tests of hypotheses will be discussed.

Relationships between study variables

When looking at the relationships between the ecological variables affecting homeless youth, four significant relationships were found between: 1) satisfaction with family relations and access to care; 2) satisfaction with family relations and victimization exposure; 3) victimization exposure and number of moves in the past two years; and 4) victimization exposure and length of time housed in the past two years. Participants who were pleased with their family relations had more than two points of access to care, while participants who were unhappy had less than two points of access to care. Points of access to care involved: having a medical doctor, a place to go when sick, or never being without access to care when it was needed. Gaskin, Kouzis, and Richard (2008) found an opposite relationship between these two factors. Stressful family circumstances led to increased use of mental health services. Children without parents, living with a single parent, or in blended families; or youth of divorced, separated, or never married parents were more likely to visit mental health services. Accessing mental health services was a surrogate for the lack of emotional support received at home. Stable family relationships on the other hand demanded less need for health care (Gaskin et al., 2008).

The second significant relationship found was between satisfaction with family relations and victimization exposure. Participants who were unhappy about their family relations had experienced more than two victimization exposures in the previous six months. Tyler and Beal (2010) found that the absence of a family member was associated with higher rates of physical victimization. Without family members to act as buffers of risk-taking behaviour, youth were more likely to be victimized. Having a family member meant access to emotional support, as

well as possible shelter, thus removing the youth from the street where they could become a potential victim (Tyler & Beal, 2010). Family breakdown is the primary reason for youth leaving home. Coming from broken homes, single parent families, or blended families, and not having personal resources to buffer against the negative effects of street life is related to youths' vulnerability of being victimized on the street (Miller, Donahue, Este, & Hofer, 2004).

In addition to the lack of family support experienced by homeless youth, abuse is another reason for their increased victimization exposure. Whitbeck, Hoyt, and Ackley (1997) found that abusive family backgrounds had a positive and direct effect on the victimization of adolescents on the streets. According to Life Course Development Theory, youth who come from abusive families are at a greater risk of associating with deviant peers who are also abusive and exploitive. This further exacerbates the developmental trajectory. Thrane, Hoyt, Whitbeck, and Yoder (2006) add that youth subjected to elevated levels of family abuse are at a greater risk of deviant subsistence strategies on the street to acquire money, food, shelter, and drugs. These behaviours such as pan-handling and sex work increase youth's likelihood of becoming victimized.

The final significant relationships found were between victimization exposure and housing stability. The more participants were victimized, the more moves they made, and the less time they were housed. Physical and sexual abuse within family increases mobility (Whitbeck et al., 1997). Conflict at home may cause youth to leave home and search for independence, or they may be kicked out due to physical violence (Miller et al., 2004). Overall, a lack of guardianship, emotional support, and time spent with family in addition to exposure to familial abuse, are associated with risky behaviours on the street and becoming a victim of violence. Being victimized is associated with mobility, where youth who experience abuse tend to escape from

their environment. All of these factors are prevalent in the environment of homeless youth and are significantly related to one another; therefore, it is important to keep these relationships in mind.

Results of hypotheses testing

Of all the hypotheses tested in this study, only the first hypothesis was found to be statistically significant. The first hypothesis predicted that there would be a positive relationship between length of time housed and academic achievement; where participants with academic achievement would be housed longer than participants without academic achievement. The hypothesis was supported. Participants who were housed for longer periods of time (mean rank of 90) over the past two years had completed high school; while participants who were housed for shorter periods of time (mean rank of 70) over the past two years did not complete high school. This association was statistically significant, $p=.046$.

Additionally, the overarching hypothesis predicted that housing stability would be the strongest predictor of academic achievement in comparison to all other predictors. The hypothesis was supported. Participants who were housed between 4 to 6 years were ten times more likely to complete high school than participants who were housed for less than two years. The relationship was statistically significant, with a p value of .006. An additional finding was that 143 participants (76.5%) had been housed for less than two years prior to their first interview. Appendix J, Table J2 displays these results. Hyman et al. (2011) found that the longer youth lived in adequate housing, the more likely they were to participate in school. An explanation for better school outcomes could be that housing stability provides reduced stress responses, therefore allowing youth to successfully engage in school. It is the toxic stress of being homeless and highly mobile that contributes to poor academic outcomes (Buckner, 2012).

Bucker implies that being housed for longer periods of time minimizes stress, giving youth the opportunity to perform better academically.

Also found in the current study, was that with every move participants made in the past two years, they became 23% less likely to be enrolled in school. This relationship was statistically significant with a p value of .026. This meant that participants who made four moves (the average number of moves made by participants) or more in the past two years were 65% less likely to be in school. Forty-nine percent (48.7%) of participants faced these odds. Appendix J, Table J3 displays the participants who moved four times or more. Homeless youth with high residential mobility show substantial risk for lower academic achievement. Frequent moving is associated with absences from school, grade retention, and drop out. At least two moves during the school year can lead to poor school performance. Youth who move three or more times in the year can be 60% more likely to repeat a grade (Cutuli et al., 2012; Davey et al., 2000; Rafferty, 1995).

An explanation for the significant effects of mobility on academic achievement could be attributed to the fact that mobility disrupts students' development in personal, school, and community spheres. It disrupts daily routines, lesson plans, supportive relationships, and coping resources. Youth who move often have to adjust to new environments, school settings, teachers, peers, and curriculum. Youth who move frequently also flee from violence and unstable relationships that do not foster academic achievement. Altogether, mobility disrupts youth's development in personal, school, and community spheres making it difficult for them to recover academically (Cutuli et al., 2012; Fantuzzo, LeBoeuf, Chen, Rouse, & Culhane, 2012; James & Lopez, 2003; Murphy, 2011; Rafferty, 1995; Whitman et al., 1990).

Limitations

This study was a secondary analysis of the Youth Matters in London: Mental Health, Addiction and Homelessness Study; therefore, it was limited to the instruments used in that study. Self-report measures were used because they are efficient means of gathering information on what people believe; however, their validity and accuracy have to be appropriately weighed since they are dependent on the comfort and honesty of the participant. Providing more socially desirable information would have caused response bias. Discrepancies between self-reported information and factual information have to be considered (Furnham, 1986; Polit & Beck, 2008). Convenience sampling methods were used in the Youth Matters study. Because these methods were not random, the results had less generalizability. It was likely that some segment of the homeless youth population was systematically under-represented. Youth who resided in unwarranted places, who did not visit shelters, or who were not at specific recruitment sites would not have been included (Polit & Beck, 2008). Also, this study was restricted to homeless youth who had a mental health disorder (with or without a substance use disorder) which probably was a major limitation to the representativeness of the study population. This restricted the application of the results to homeless youth with a mental health disorder.

In terms of assessing validity, “a measure is valid if the scores provide information about the underlying construct or theoretical variable that it is intended to measure” (Warner, 2013, p. 902). The HSJSU and Access questionnaires from the “At Home/ Chez Soi” project (by Goering et al., 2011) were not tested for psychometric properties. This compromised the validity of the Health and Social Service Use, Victimization, and Access to Care variables that were adopted from the questionnaires and used in this study.

Conclusions

As explained through Bronfenbrenner's theory, many factors in the environment of homeless youth affect their academic achievement. The only significant relationship found in the immediate environment was between length of time housed and academic achievement. The longer participants were housed, the more likely they were to complete high school. None of the other environmental factors in the microsystem (number of times moved, victimization, satisfaction with family relations, or social competence) or the mesosystem (health and social service use, and access to care) were significantly related to academic achievement. Significant relationships were found between independent variables where high victimization exposure was significantly related to high mobility rates, shorter lengths of time housed, and being unhappy with family relationships. In the logistic regression models, length of time housed was the most significant predictor of high school completion, while the number of moves participants made was the most significant predictor of current enrollment in school.

References

- Aviles de Bradley, A. M. (2011). Unaccompanied homeless youth: Intersections of homelessness, school experiences and educational policy. *Child & Youth Services, 32*, 155–172. doi:10.1080/0145935X.2011.583176.
- Barker, S., Barron, N., McFarland, B. H., & Bigelow, D.A. (1994). A community ability scale for chronically mentally ill consumers: Part I. Reliability and validity. *Community mental health journal, 30*(4), 363–83. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/7956112>.
- Boivin, J.F., Roy, E., Haley, N., & Galbaud du Fort, G. (2009). *The health of street youth in Canada: A review of the literature* [E-book]. Retrieved from <http://homelesshub.org/ResourceFiles/Documents/2.4%20Boivin%20et%20al%20-%20Health%20of%20Street%20Youth.pdf>.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Buckner, J. C. (2012). Education research on homeless and housed children living in poverty: Comments on Masten, Fantuzzo, Herbers, and Voight. *Educational Researcher, 41*, 403–407. doi:10.3102/0013189X12466588.
- Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada & Social Sciences and Humanities Research Council of Canada. (2010). Tri-Council

policy statement: Ethical conduct for research involving humans. Retrieved from http://www.pre.ethics.gc.ca/pdf/eng/tcps2/TCPS_2_FINAL_Web.pdf.

Cutuli, J. J., Desjardins, C. D., Herbers, J. E., Long, J. D., Heistad, D., Chan, C.-K., ... Masten, A.S. (2012). Academic achievement trajectories of homeless and highly mobile students: Resilience in the context of chronic and acute risk. *Child Development, 00*, 1–17.

doi:10.1111/cdev.12013.

Da Costa Nunez, R., & Collignon, K. (1999). Communities of learning: A bridge from poverty and homelessness to education and stability. *Journal for a Just and Caring Education, 5*(1), 72–87.

Davey, T. L., Penuel, W. R., Allison-Tant, E., & Rosner, A. M. (2000). The HERO program: A case for school social work services. *Social Work in Education, 22*(3), 177–191. Retrieved from <http://web.ebscohost.com/ehost/detail?sid=b7699757-ee7f-48ef-8696-0d8f61bd8244%40sessionmgr11&vid=4&hid=126&bdata=JnNpdGU9ZWZWhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=3421373>.

Dhillon, J. (2011). Social exclusion, gender, and access to education in Canada: Narrative accounts from girls on the street. *Feminist Formations, 23*, 110–134.
doi:10.1353/ff.2011.0041.

Dupper, D. R., & Halter, A. P. (1994). Barriers in educating children from homeless shelters: Perspectives of school and shelter staff. *Social Work in Education, 16*(1), 39–45. Retrieved from <http://web.ebscohost.com/ehost/detail?vid=3&hid=122&sid=391e5bdd-1d8a-4801-be81->

1a94c8622909%40sessionmgr111&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#db=a9h
&AN=9606216644.

Evenson, J., & Barr, C. (2009). Youth homelessness in Canada: The road to solution. *Retrieved from*
http://www.raisingtheroof.org/RaisingTheRoof/media/RaisingTheRoofMedia/Documents/RoadtoSolutions_fullrept_english.pdf.

Fantuzzo, J. W., LeBoeuf, W. A., Chen, C.-C., Rouse, H. L., & Culhane, D. P. (2012). The unique and combined effects of homelessness and school mobility on the educational outcomes of young children. *Educational Researcher, 41*, 393–402.
doi:10.3102/0013189X12468210.

Forchuk, C., Giustizia, S., Annett, N., Connoy, M., Csiernik, R., Diaz, K.,...Wilk, P. (2009). Youth matters in London: Mental health, addiction and homelessness research proposal. Unpublished manuscript, Lawson Health Research Institute, London, Canada.

Furnham, A. (1986). Response bias, social desirability and dissimulation. *Personality and Individual Differences, 7*, 385–400. doi: 10.1016/0191-8869(86)90014-0.

Gaetz, S. (2002). *Street justice: Homeless youth and access to justice*. Retrieved from *http://www.jfcy.org/PDFs/GaetzReportFinal.pdf.*

Gaskin, D. J., Kouzis, A., & Richard, P. (2008). Children's and adolescents' use of mental health care is a family matter. *Medical care research and review, 65*, 748–62.
doi:10.1177/1077558708320988.

- Goering, P. N., Streiner, D. L., Adair, C., Aubry, T., Barker, J., Distasio, J.,...Zabkiewicz, D.M. (2011). The At Home/Chez Soi trial protocol: A pragmatic, multi-site, randomised controlled trial of a Housing First intervention for homeless individuals with mental illness in five Canadian cities. *British Medical Journal Open*, *1*, 1-20. doi:10.1136/bmjopen-2011-000323.
- Goldman, J. D. G., & La Castra, L. D. (2000). The education of homeless youth in Australia. *Youth Studies Australia*, *19*(2), 43–50. Retrieved from <http://web.ebscohost.com/ehost/detail?sid=47bae671-02e5-4444-90c3-cbb02f1ad22a%40sessionmgr4&vid=6&hid=24&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=3264658>.
- Hallett, R. E. (2012). Living doubled-up: Influence of residential environment on educational participation. *Education and Urban Society*, *44*, 371–391. doi: 10.1177/0013124510392778.
- Hendryx, M., Dyck, D. G., McBride, D., & Whitbeck, J. (2001). A test of the reliability and validity of the Multnomah Community Ability Scale. *Community Mental Health Journal*, *37*(2), 157–168. Retrieved http://download.springer.com/static/pdf/826/art%253A10.1023%252FA%253A1002713816110.pdf?auth66=1363575362_afe604b9d31651c96d58e54d089d4bfb&ext=.pdf.
- Hyman, S., Aubry, T., & Klodawsky, F. (2011). Resilient educational outcomes: Participation in school by youth with histories of homelessness. *Youth & Society*, *43*, 253–273. doi: 10.1177/0044118X10365354.

- Jaccard, J., & Becker, M.A. (1990). Nonparametric statistical tests. In J. Jaccard, M.A. Becker (2nd Ed.), *Statistics for the behavioural sciences* (pp. 387-411). Belmont, CA: Wadsworth, Inc.
- James, B. W., & Lopez, P. D. (2003). Transporting homeless students to increase stability: A case study of two Texas districts. *The Journal of Negro Education*, 72, 126-140.
doi:10.2307/3211296.
- Kennedy, A. C. (2007). Homelessness, violence exposure, and school participation among urban adolescent mothers. *Journal of Community Psychology*, 35, 639–654.
doi:10.1002/jcop.20169.
- Lawson Health Research Institute. (2010, April, 30). *Letter of information (for potential participants, service providers) youth matters in London: mental health, addiction and homelessness*. [Letter of information]. The Research Institute of London Health Sciences Centre and St. Joseph Healthcare, London: London, ON.
- Low, B. J. (2001). The association between academic achievement and health status among eight-grade Hispanic students in Houston. *ProQuest Dissertations and Theses*, 1–286.
Retrieved from
<http://search.proquest.com.proxy1.lib.uwo.ca/docview/304726360/fulltextPDF/139B37F34F3890DBF0/1?accountid=15115>.
- MacKay, K. A., & Hughes, D. M. (1994). Educating runaway and homeless youths: Perspective of the National Network of Runaway and Youth Services. *Social Work in Education*, 16(1), 55–63. Retrieved from <http://web.ebscohost.com/ehost/detail?sid=b7699757-ee7f-48ef->

8696-

0d8f61bd8244%40sessionmgr11&vid=4&hid=7&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#db=a9h&AN=9606216646.

McMullen, K., & Gilmore, J. (2010). A note on high school graduation and school attendance, by age and Province, 2009/2010. Retrieved from Statistics Canada website:

<http://www.statcan.gc.ca/pub/81-004-x/2010004/article/11360-eng.htm>.

Miller, P., Donahue, P., Este, D., & Hofer, M. (2004). Experiences of being homeless or at risk of being homeless among Canadian youths. *Adolescence*, 39(156), 735–55. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/15727411>.

Moore, T., & McArthur, M. (2011). 'Good for kids': Children who have been homeless talk about school. *Australian Journal of Education*, 55(2), 147–160. Retrieved from <http://search.proquest.com/education/docview/963778068/fulltextPDF/137751668585049BEAA/66?accountid=15115#>.

Munro, B. H. (2005a). Correlation. In B.H. Munro (5th Ed.), *Statistical methods for health care research* (pp. 239-258). Philadelphia, PA: Lippincott Williams & Wilkins.

Munro, B. H. (2005b). Logistic regression. In B.H. Munro (5th Ed.), *Statistical methods for health care research* (pp. 301-320). Philadelphia, PA: Lippincott Williams & Wilkins.

- Munro, B. H. (2005c). Selected non parametric techniques. In B.H. Munro (5th Ed.), *Statistical methods for health care research* (pp. 109-135). Philadelphia, PA: Lippincott Williams & Wilkins.
- Munro, B. H. (2005d). T-tests: Measuring the differences between group means. In B.H. Munro (5th Ed.), *Statistical methods for health care research* (pp. 137-149). Philadelphia, PA: Lippincott Williams & Wilkins.
- Murphy, J. (2011). Homeless children and youth at risk: The educational impact of displacement. *Journal of Education for Students Placed at Risk, 16*, 38–55.
doi:10.1080/10824669.2011.554143.
- Murphy, J.F., & Tobin, K.J. (2011). Homelessness comes to school. *Phi Delta Kappa, 93*(3), 32–37. Retrieved from
<http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=4&sid=da5e8158-26b1-404c-8486-fee04ea569c3%40sessionmgr12&hid=10>.
- Peter, E., Sweatman, L., & Carlin, K. (2008). Advocacy, ethical, and legal considerations. In L.L. Stamler, & L. Yiu. (2nd Ed.), *Community health nursing: A Canadian perspective* (pp.65-79). Toronto, ON: Pearson Education Canada.
- Polit, D.E., & Beck, C.T. (5th Ed.). (2008). *Nursing research: Generating and assessing evidence for nursing practice*. Philadelphia, PA: Lippincott Williams & Wilkins.

- Rafferty, Y. (1995). The legal rights and educational problems of homeless children and youth. *Educational Evaluation and Policy Analysis*, 17(1), 39–61. Retrieved from <http://www.jstor.org/openurl?volume=17&date=1995&spage=39&issn=01623737&issue=1>.
- Rafferty, Y., Shinn, M., & Weitzman, B. C. (2004). Academic achievement among formerly homeless adolescents and their continuously housed peers. *Journal of School Psychology*, 42, 179–199. doi:10.1016/j.jsp.2004.02.002.
- Smith, D., Jacobson, L., & Yiu, L. (2008). Primary health care. In L.L. Stamler, & L. Yiu. (2nd Ed.), *Community health nursing: A Canadian perspective* (pp.111-124). Toronto, ON: Pearson Education Canada.
- Strawser, S., Markos, P. A., Yamaguchi, B. J., & Higgins, K. (2000). A new challenge for school counselors: Children who are homeless. *Professional School Counseling*, 3(3), 162–171. Retrieved from <http://search.proquest.com/docview/213305451/fulltextPDF/1378B75455E7C51A507/3?accountid=15115>.
- Stronge, J.H., & Hudson, K. S. (1999). Educating homeless children and youth with dignity and care. *Journal for a Just and Caring Education*, 5(1), 7–18.
- Sylvestre, J., Ollenberg, M., & Trainor, J. (2009). A model of housing stability for people with serious mental illness. *Canadian Journal of Community Mental Health*, 28(1), 195–207. Retrieved from <http://cjmh.metapress.com.proxy2.lib.uwo.ca/media/h07c7jygxm4tu81pty47/contributions/j/0/u/6/j0u66507gt561636.pdf>.

- Thrane, L. E., Hoyt, D. R., Whitbeck, L. B., & Yoder, K. A. (2006). Impact of family abuse on running away, deviance, and street victimization among homeless rural and urban youth. *Child Abuse & Neglect*, *30*, 1117–1128. doi:10.1016/j.chiabu.2006.03.008.
- Tolomiczenko, G., & Goering, P. (2001). Gender differences in legal involvement among homeless shelter users. *International Journal of Law and Psychiatry*, *24*(6), 583–593. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/11795222>.
- Tsemberis, S., McHugo, G., Williams, V., Hanrahan, P., & Stefancic, A. (2007). Measuring homelessness and residential stability : The Residential Time-Line Follow-Back Inventory. *Journal of Community Psychology*, *35*, 29–42. doi:10.1002/jcop.20132.
- Tyler, K. A., & Beal, M. R. (2010). The high-risk environment of homeless young adults: Consequences for physical and sexual victimization. *Violence and Victims*, *25*, 101–115. doi:10.1891/0886-6708.25.1.101.
- Uttaro, T., & Lehman, A. (1999). Graded response modeling of the Quality of Life Interview. *Evaluation and Program Planning*, *22*, 41–52. doi:10.1016/S0149-7189(98)00039-1.
- Warner, R.M. (2013). Reliability, validity, and multiple-item scales. In R.M. Warner (2 Ed.), *Applied statistics: From bivariate through multivariate techniques* (pp. 901-952). Thousand Oaks, CA: SAGE Publications, Inc.
- Whitbeck, L. B., Hoyt, D. R., & Ackley, K. A. (1997). Abusive family backgrounds and later victimization among runaway and homeless adolescents. *Journal of Research on Adolescence*, *7*, 375–392. doi: 10.1207/s15327795jra0704_2.

Whitman B.Y., Accardo, P., Boyert. M., & Kendagor, R. (1990). Homelessness and cognitive performance in children: A positive link. *Social Work, 35*(6), 516–519. Retrieved from <http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=3&sid=f88a4e6e-b024-4c4b-b253-0eda26e99a83%40sessionmgr11&hid=10>.

Yamaguchi, B. J., Strawser, S., & Higgins, K. (1998). Children who are homeless : Implications for educational diagnosticians. *Special Services in the Schools, 13*(1/2), 63–83. Retrieved from http://www.tandfonline.com/doi/pdf/10.1300/J008v13n01_04.

Yin, P. (1985). *Victimization and the aged*. Chicago, IL: Charles C Thomas.

Chapter 3

Implications for Nursing Practice

When assessing relationships between independent variables, it was found that the more victimization exposures experienced by participants, the less time they were housed, and the more moves they made. These relationships were significant, which implies that measures to decrease victimization will decrease mobility and increase the length of time youth are housed. Skybo and Polivka (2007) as well as Taylor-Seehafer (2004) stated that nurses can help decrease violence exposure and the negative effects of violence through primary, secondary and tertiary interventions. For example, in inter-professional teams, nurses can help target communities that are at risk of violence; communities where there are gangs, high levels of crime, drugs, and broken homes. These are prime locations for violence prevention strategies. Primary interventions that occur in the community to reduce situations where youth might be victimized may involve group training on conflict resolution, assertiveness training, anger management skills, stress reduction, and coping skills. Providing safer alternatives to risky behaviours that lead to violence, such as offering drug-free safe places to socialize are additional preventative measures (Skybo & Polivka, 2007; Taylor-Seehafer, 2004).

When violence is present or suspected, secondary prevention may involve screening and crisis interventions. Antiviolence programs are also an effective prevention strategy that promotes increased academic performance in children. These programs may similarly be effective in youth. Tertiary prevention involves providing rehabilitation and counseling services to help youth cope with their experience of violence. The nurse would work short-term to help youth reduce fear from violence, regain physical-emotional control, and restore social connections (Skybo & Polivka, 2007; Taylor-Seehafer, 2004). Overall, nurses can work with

interdisciplinary teams to implement prevention strategies that can decrease victimization and its consequences to learning.

Of the variables investigated, housing stability was the most significant predictor of academic achievement. The less time participants spent housed, the less likely they were to complete high school; additionally, the more mobile participants were, the less likely they were to be enrolled in school. Gerber (2013) states that nurses can help prevent homelessness through primary prevention strategies such as identifying youth living in poverty and doubled-up situations. Hagedorn (2002) adds that nurses can screen for precursors to adolescent homelessness such as "family mental illness, substance abuse, physical and sexual abuse, dysfunctional family relationships, and involvement with the juvenile justice and social services systems"(p. 35). For youth at risk of homelessness or who are already homeless, secondary prevention strategies involve nurses referring youth to housing agencies that have comprehensive housing plans or connecting youth with emergency, transitional, permanent, or supportive housing. Nurses can also assess the need for emergency assistance programs to help with rent and bills (Gerber, 2013).

Tertiary prevention strategies involve nurses connecting youth to resources that will help them maintain their health and housing. Maintaining health and housing will eliminate barriers to education, promote self-sufficiency, and promote the development of life skills (Taylor-Seehafer, 2004). All of these strategies may help to mitigate homelessness and subsequent disruptions to education. Overall, nurses can play a role in reducing barriers faced by homeless youth by helping to decrease victimization exposure and assessing for risk factors of homelessness.

Policy Recommendations

Among all the researched ecological factors involved in the lives of the participants in the study, housing stability was the most significant predictor of academic success. Reliable, affordable, and safe housing where youth can stay for long periods of time, gives them the opportunity to participate in school. To promote education, housing policies and funding are needed to support emergency shelters, transitional housing, and affordable housing (Evenson & Barr, 2009). Currently, in Ontario funding for long-term affordable housing is being downloaded from provincial to municipal responsibility. The problem concerning this is that funding from the federal government is short-term and declining to zero dollars by the year 2033 (Ministry of Municipal Affairs and Housing, 2010). In order for municipalities to plan long-term and participate in capital projects that build and sustain more affordable housing, uninterrupted long-term funding is needed. A national housing plan led by the federal government that also includes affordable housing for youth is necessary to promote their education (Ministry of Municipal Affairs and Housing, 2010).

In addition to addressing housing policies, prolonging the financial security of youth exiting the foster care system can help prevent youth homelessness. Sixty-eight percent (68%) of homeless youth come from foster homes, group homes, and youth centres. Care for many youth officially ends at the age of 21, meaning financial support, health care benefits, and access to supportive relationships. Prolonging the duration of financial support until the age of 25 can provide youth with the stability (including housing stability) they need to attend school, and gain employment (The Provincial Advocate for Children and Youth, 2012). Furthermore, in the social service system, providing benefits such as welfare and social housing to youth under the age of 18 may allow them to qualify for affordable housing (Evenson & Barr, 2009). In summary,

providing financial security to support housing stability will increase the likelihood of academic achievement for youth.

This study found that for each move participants made, they became 23% less likely to be in school. Mobility is associated with the loss of educational services, poor school attendance, and academic failure (Rafferty, 1995). Policies similar to The Stewart B. McKinney Homeless Assistance Act in the United States can be adapted for implementation in Canada to assist homeless and mobile youth with their academic achievement. This Act addresses obstacles homeless students face in enrolling, attending, and succeeding in school. It provides small allocations for states to develop policies and implement plans to ensure children and youth attend school (Ableidinger, 2004). Interventions of the Act that may help with highly mobile youth include: enabling youth to choose the school they want to attend; immediately enrolling youth without documentation; the provision of accessible transportation to and from school; and maintaining the school records of homeless youth so that they can be readily available (Thompson, Bender, Windsor, Cook, & Williams, 2010). The Stewart B. McKinney Homeless Assistance Act has also requested coordinators for homeless programs to collect data on number and location of homeless youth, review municipal and provincial policies, identify barriers to education, and submit plans to remove these barriers (Ableidinger, 2004). Overall, it is essential that ministries responsible for affordable housing, child welfare, and education, collaborate to implement policies that remove barriers to education and promote homeless youths' participation in school. Additionally, since responsibility for housing crosses Federal, Provincial, and Municipal levels, collaboration across levels of governments is required.

Recommendation for Future Research

Qualitative research examining the barriers and facilitators of homeless youth trying to acquire education is needed to fully capture the experience of these youth and plan for interventions that promote their education. Furthermore, Hagedorn (2002) states that needs assessments of homeless youth are required to evaluate the scope of resources needed to promote their education. Additionally, Cutuli et al. (2012) recommended resilience research on protective factors that influence the academic achievement of homeless and mobile youth. This type of research sets the groundwork for policies that support protective factors. In order to provide meaningful interventions, homeless youth need to be involved in research. King et al. (2010) says Participatory Action Research (PAR) involves participants in the planning, and evaluation of research. The purpose is to work in partnership with professionals and social agencies in the community to generate and share knowledge that will influence change. Overall, research in collaboration with homeless youth, interdisciplinary teams, the educational system, and government is needed to reveal processes that promote the education of homeless youth.

Conclusions

Overall, in the microsystem, access to long-term housing is the most significant factor that will promote the education of homeless youth. In the mesosystem, collaboration between health and social service providers, housing services, and the school system can work together to meet the complex needs of homeless youth. In the macro system, policies concerning affordable housing, financial security, and accessible education, can create a supportive platform for homeless youth. Nurses can have an influential role in all systems. In the youth's immediate environment, nurses can assess for housing needs and help connect youth with housing services; they can also help prevent exposure to victimization. In the mesosystem, the role of nurse has not

been defined through this study. However, at the macro level, nurses can advocate for policies that promote housing stability and accessible education. Altogether, interventions based on an ecological model will help youth exit cycles of homelessness, participate in school, and become contributing members of society.

References

- Ableidinger, J. D. (2004). Educational rights of homeless children and youths: *The McKinney-Vento Act and its impact on North Carolina's schools*. Retrieved from <http://sogpubs.unc.edu/electronicversions/slb/slbfal04/article1.pdf>.
- Busen, N. H., & Engebretson, J. C. (2008). Facilitating risk reduction among homeless and street-involved youth. *Journal of the American Academy of Nurse Practitioners*, 20, 567–75. doi:10.1111/j.1745-7599.2008.00358.x.
- Cutuli, J. J., Desjardins, C. D., Herbers, J. E., Long, J. D., Heistad, D., Chan, C.-K., ... Masten, A.S. (2012). Academic achievement trajectories of homeless and highly mobile students: Resilience in the context of chronic and acute risk. *Child Development*, 00, 1–17. doi:10.1111/cdev.12013.
- Evenson, J., & Barr, C. (2009). Youth homelessness in Canada: The road to solution. Retrieved from http://www.raisingtheroof.org/RaisingTheRoof/media/RaisingTheRoofMedia/Documents/RoadtoSolutions_fullrept_english.pdf.
- Gerber, L. (2013). Bringing home effective nursing care for the homeless. *Nursing*, 43, 32–38. doi:10.1097/01.NURSE.0000426620.51507.0c.
- Gullberg, P. L. (1989). A psychiatric nurse's role. *Journal of Psychosocial Nursing*, 27(6), 9–13. Retrieved from

<http://search.proquest.com/docview/1026708533/fulltextPDF/13C93A5564B652B5A8B/5?accountid=15115>.

Hagedorn, S. (2002). Caring for street youth: A nursing challenge. *Journal for Specialists in Pediatric Nursing*, 7(1), 34–37. Retrieved from

[http://onlinelibrary.wiley.com.proxy1.lib.uwo.ca/doi/10.1111/j.1744-](http://onlinelibrary.wiley.com.proxy1.lib.uwo.ca/doi/10.1111/j.1744-6155.2002.tb00146.x/pdf)

[6155.2002.tb00146.x/pdf](http://onlinelibrary.wiley.com.proxy1.lib.uwo.ca/doi/10.1111/j.1744-6155.2002.tb00146.x/pdf).

Julianelle, P. (2009). *Using what we know: Supporting the education of unaccompanied homeless youth*. Retrieved from The Homeless Hub website:

<http://www.homelesshub.ca/Resource/Frame.aspx?url=http%3a%2f%2fwww.homebaseccc.org%2fPDFs%2fTAY%2fReport.SupportingTheEducationOfUnaccompaniedHomelessYouth.pdf&id=45869&title=Using+What+We+Know%3a+Supporting+the+Education+of+Unaccompanied+Homeless+Youth&owner=48>.

King, G., Servais, M., Forchuk, C., Chalmers, H., Currie, M., Law, M.,... Kertoy, M. (2010).

Features and impacts of five multidisciplinary community-university research partnerships.

Health & Social Care in the Community, 18, 59–69. doi:10.1111/j.1365-

[2524.2009.00874.x](http://onlinelibrary.wiley.com.proxy1.lib.uwo.ca/doi/10.1111/j.1365-2524.2009.00874.x).

Ministry of Municipal Affairs and Housing. (2010). *Building foundations building futures:*

Ontario's long term affordable housing strategy. Retrieved from

<http://www.mah.gov.on.ca/AssetFactory.aspx?did=8590>.

- Rafferty, Y. (1995). The legal rights and educational problems of homeless children and youth. *Educational Evaluation and Policy Analysis*, 17(1), 39–61. Retrieved from <http://www.jstor.org/openurl?volume=17&date=1995&spage=39&issn=01623737&issue=1>.
- Seiler, A. J., & Moss, V. A. (2012). The experiences of nurse practitioners providing health care to the homeless. *Journal of the American Academy of Nurse Practitioners*, 24, 303–312. doi:10.1111/j.1745-7599.2011.00672.x.
- Skybo, T., & Polivka, B. (2007). Health promotion model for childhood violence prevention and exposure. *Journal of Clinical Nursing*, 16, 38–45. doi:10.1111/j.1365-2702.2006.01621.x.
- Taylor-Seehafer, M. A. (2004). Positive youth development: Reducing the health risks of homeless youth. *American Journal of Maternal Child Nursing*, 29, 36–40. doi:10.1097/NMC.0b013e31827f16c4.
- Thames Valley District School Board. (2013). School of adult, alternative, and continuing education: Alternative education referral form. Retrieved from <http://www.tvdsb.ca/files/88814/Alt%20Ed%20Referral.pdf>.
- The Provincial Advocate for Children and Youth. (2012). Retrieved from http://www.provincialadvocate.on.ca/documents/en/ylc/YLC_REPORT_ENG.pdf.
- Thompson, S. J., Bender, K., Windsor, L., Cook, M. S., & Williams, T. (2010). Homeless youth: Characteristics, contributing factors, and service options. *Journal of Human Behavior in the Social Environment*, 20, 193–217. doi:10.1080/10911350903269831.

Tyler, K. A., & Beal, M. R. (2010). The high-risk environment of homeless young adults: Consequences for physical and sexual victimization. *Violence and Victims*, 25, 101–115.
doi:10.1891/0886-6708.25.1.101.

Appendices

Appendix A

Summary of the Literature Search

Table A1

Summary of the Literature Search

Database	Search terms	Results
CINAHL	“homeless” or “homelessness”, “adolescence”, and “education	107
CINAHL	“homeless” or “homelessness”, “adolescence”, and “academic performance	1
Pub Med	“homeless” “adolescents” “academic achievement”	62
Scopus	“academic achievement”, “adolescents”, and “homeless”	19
Scopus	“education”, “adolescents”, and “homeless”	322
Psyche Info	“academic achievement”, “homeless”, and “adolescents”	5
Psyche Info	“education”, “homeless”, and “adolescents”	119
Eric Plus	“homeless”, “adolescence” or “youth”, “academic” or “education”	746 results 272 scholarly journals
Proquest Education Journals	“homeless”, “youth”, and “education”	467 results 158 scholarly
Social Science Index	homeless”, “youth”, and “education”	30
SocINDEX	“homeless”, “youth”, and “education”	298
The Homeless Hub	“academic achievement”, “homeless”, and “adolescence”	32
The Homeless Hub	“youth” and “academic achievement	111
The Homeless Hub (Canadian Studies)	“homeless”, “adolescence”, “education”, and “Canada”	134

Appendix B
Study Variable Items

Table B1

Independent Variables: Variable Items

Variable	Items				
Length of time housed	Reported length of time housed in two years				
Number of times moved	Reported moves in two years				
Victimization	Anyone take or try to take something from you by force or threat of force?	Anyone threaten to hit or attack you, or threaten you with a weapon?	Anyone hit or attack you (by attack we mean anything from being hit, slapped, pushed or grabbed to being shot or beaten)?	Anyone forced you or attempted to force you into any unwanted sexual activity?	Any other crimes that happened to you during the past 6 months, which may or may not have been reported to the police?
Family relations	How do you feel about your family in general?	How do you feel about how often you have contact with your family?	How do you feel about the way you and your family act towards each other?	How do you feel about the way things are in general between you and your family?	

Social competence	In general, what are other people's reactions to the participant?	How frequently does the participant initiate social contact or respond to others' initiation of social contact?	How effectively does the participant interact with others?	How extensive is the participant's social support network?	How frequently is the participant in meaningful activities that are satisfying to him or her?
Health and social service use	How many times have you seen a health or social services provider at his or her office? (past month)	How many times have you talked on the phone about your health, housing, or other needs with a health or social services provider? (past month)	How many times have you been visited by a health or social service provider at your home or anywhere else? (past month)	How many times have you had services at a hospital where you didn't stay overnight (no ER, no lab/diagnostic tests)? (past 6 months)	How many times have you called a crisis line, 911 or other health line? (past 6 months)
	How many times have you been visited by a crisis team? (past 6 months)	How many times have you been to a hospital emergency room? (past 6 months)	How many times have you been taken by ambulance to a hospital? (past 6 months)	How many times have you been to any drop-in centres, community meal centres, or meal programs (not overnight)? (past 6 months)	How many times did you go to a food bank to get food? (past 6 months)

Access to care	Do you have a regular medical doctor?	Is there a place that you usually go to when you are sick or need advice about your health?	In the past 6 months, was there ever a time when you felt that you needed health care but you didn't receive it?
----------------	---------------------------------------	---	--

Note. “Length of time housed” and “number of times moved” were adopted from the Housing History Survey; Items from the “victimization exposure” variable were adopted from the Health, Social, Justice, Service Use questionnaire. Items from the “family relations” variable were adopted from The Quality of Life Inventory 20 questionnaire. Items from the “social competence” variable were adopted from the Multnomah Community Ability Scale. Items from the “health and social service use” variable were adopted from the Health, Social, Justice Service Use (HSJSU) questionnaire; and items from the “access to care” variable were adopted from the Access questionnaire.

Table B2

Dependent Variables: Variable Items

High School Completion	
Completed grades 5 to 8	No
Attended high school-not completed	No
Completed high school	Yes
Attended university-not completed	Yes
Attended business, trade or, technical school	No
Current Enrolment in School	
One hour or more recorded	Yes
Zero hours recorded	No

Appendix C

Demographics, Service & Housing History ID [] [] [] [] [] [] Y [] [] M [] [] D [] []

Now I'll start with the interview questions - first some questions about your gender, where you were born, and your background.

1. What is your gender? Do you identify as:

- Male Female Transgender Transsexual Other Declined

2. Where were you born, that is, what country?

Do not read list. If Canada, ask 2.a. If other than Canada, ask 2.b and 2.d.

- Albania Afghanistan Bangladesh Canada
 China Guyana Hong Kong India
 Iran Jamaica Pakistan Philippines
 Romania Russia Somalia South Korea
 Sri Lanka Ukraine United States Vietnam
 Yugoslavia Other (specify) Don't know Declined

2.a. If other (specify): _____

2.b. Within Canada, what is your original home community, that is, where were you born? Record what they tell you.

2.c. When did you arrive in Canada? Y [] [] M [] [] D [] []

Land in years, please estimate if not known exactly.

2.d. When you arrived in Canada, what was your status?

- Landed immigrant Visitor with intent to apply Student
 Temporary status (work permit; domestic help) Refugee Claimant (awaiting hearing)
 Other Don't know Declined

3. Where were your parents born, that is, what countries?

Check one for each parent, unless they were born in the same country.

- Albania Afghanistan Bangladesh Canada
 China Guyana Hong Kong India
 Iran Jamaica Pakistan Philippines
 Romania Russia Somalia South Korea
 Sri Lanka Ukraine United States Vietnam
 Yugoslavia Other Don't know Declined

3.a. Other specify: _____

4. What is the language you first learned to speak at home in childhood and still understand?

Do not read list.

- Albanian Arabic Bengali Cantonese
 Mandarin Dan English French
 Greek Gujarati Hindi Korean
 Ojibway Persian (Farsi) Portuguese Punjabi
 Russian Serbian Somali Spanish
 Tagalog Tamil Urdu Vietnamese
 Other (specify) Don't know Declined



Demographics, Service & Housing History ID | | | | | Y | 2 | 0 | | | M | | D | | |

4.a If other (specify): _____

5. What is your ethnic or cultural identity?
 Do not read list, if Aboriginal, ask 5.d and 5.d.a.
- Aboriginal
 - Asian - East* (e.g. China, Japan, Korea)
 - Asian - South* (e.g. India, Pakistan, Sri Lanka)
 - Asian - South East* (e.g. Malaysia, Philippines, Vietnam)
 - Black - Africa* (e.g. Ghana, Kenya, Somalia)
 - Black - Canada*
 - Black - Caribbean Region* (e.g. Jamaica, Trinidad, Tobago)
 - Latin American* (e.g. Argentina, Chile, Costa Rica)
 - Indian-Caribbean* (i.e. Guyana with origins in India)
 - Middle Eastern* (e.g. Egypt, Iran, Israel, Palestine)
 - White - Canada
 - White - Europe (e.g. England, Greece, Italy, Portugal, Serbia)
 - Mixed Background - with at least 1 of groups marked with an asterisk(*) (specify)
 - Mixed Background - without any of the groups marked with an asterisk(*) (specify)
 - Other (specify)

5.a If other (specify): _____

5.b If mixed (specify): _____
 with at least 1 of groups marked with an asterisk(*)

5.c If mixed (specify): _____
 without any of the groups marked with an asterisk(*)

- 5.d If Aboriginal, are you:
- Inuit
 - First Nations Status
 - Indigenous from outside Canada
 - Metis
 - First Nations Non-status
 - Other (specify)

5.d.a If other (specify): _____

6. So just to confirm, how would you describe your ethnic or cultural background in your own words? (Repeat what they tell you, including if more than one box is used)

7. Do you identify yourself as Canadian? (You do not have to be born in Canada to think of yourself as Canadian).
- Yes
 - No
 - Don't know
 - Declined

Next some questions about schooling, marital status and parenting.

8. Not counting kindergarten, how many years of school did you complete?



Demographics, Service & Housing History

ID | | | | | Y | 2 | 0 | | | M | | | D | | |

9. What is your level of education?
- Completed grade 4 or less
 Attended High School, not completed
 Attended business, trade, technical school (incl. CEGEP)
 Attended University, not completed
 Attended Graduate School, not completed
 Don't know
- Completed grade 5 to 8
 Completed High School
 Completed business, trade, technical school (incl. CEGEP)
 Completed University (Bachelor's degree)
 Completed Graduate School
 Declined

10. Are you currently single? (read first 6 options)

- Single (never married)
 Separated
 Cohabiting with a partner
 Don't know
- Married
 Divorced
 Widowed
 Declined

11. How many children do you have under the age of 18 (19 in Vancouver)? (Include whether or not they live with you).

If 1 or more, ask 11.a, 11.b and 11.c.

- 0 1 2 3 4 >4 Don't know Declined

11.a How many of these children do you currently provide full or partial support to?

| |

11.b What is your relationship to your child or children?

Record all that apply.

- Biological parent Parent's partner (living together)
 Adoptive parent Foster parent
 Stepparent Other adult relative (specify)
 Don't know Declined

11.c If other adult relative (specify):

Now I will be asking some questions about your work history.

12. Have you worked continuously for at least one year in the past?

- Yes No Don't know Declined

13. Have you ever had any wartime service in the military forces of Canada or its allies?

If they have had other military experiences, allow them to tell you about that experience, but record only Canadian or allies service.

- Yes No Don't know Declined

14. What is your current PRIMARY employment status?

If unemployed, ask 14.a through 14.d. If ever worked, ask 14.e through 14.g. If not employed, ask 14.h.

- Unemployed
 Employed in a special work program
 Housewife/husband
 Declined
- Employed (including self-employed)
 Retired
 Other (specify)
- Volunteer work (unpaid)
 Student
 Don't know

14.a If other (specify):

Demographics, Service & Housing History ID | | | | | Y | 2 | 0 | | M | | D | |

14.b. What is the main reason you are not working?
Don't read; code based on what they tell you.

Mental illness Physical illness Transportation problems
 Fear of loss of benefits Other (specify)

14.c. If other, (specify): _____

14.d. Would you like to have a paid job in the community?
If yes, ask 14.e through 14.g.

Yes No Don't know Declined

14.e. What kind of job or jobs?
Record what they tell you.

14.f. How many hours per week?

14.g. Wage per hour?
Enter in dollars, round up to the nearest dollar. We are looking for their actual hourly wage that is responsible for the type of work.

14.h. Where are you studying?

14.i. How many credits per semester are you currently registered for?

14.j. How many hours per week are you currently registered for?

15. What are your current sources of income?
Record all that apply. Use the Other category for consumer run-business income, family support, student loans etc.
Regular work is a fixed number of hours per week, casual is no fixed number of hours per week.

<input type="checkbox"/> Earnings from regular work	<input type="checkbox"/> Longterm Disability (Private Insurer)
<input type="checkbox"/> Earnings from casual work	<input type="checkbox"/> Personal Needs Allowance (PNA (Ont.))
<input type="checkbox"/> Unemployment insurance (EI or EIA in Man.)	<input type="checkbox"/> Selling papers, souvenirs, crafts
<input type="checkbox"/> Disability income (ODSP/CPD (Ont.) IAPD (Man.))	<input type="checkbox"/> Pan-handling
<input type="checkbox"/> Welfare/income assistance (OW (Ont.) w/PWD or PPMB status (BC))	<input type="checkbox"/> Bussing (entertaining for cash)
<input type="checkbox"/> Pension, incl. old age security, CPP, veteran's pension	<input type="checkbox"/> Squeegeeing
<input type="checkbox"/> Other (specify)	<input type="checkbox"/> Collecting/recycling (bottles, scrap metal etc.)

15.a. Other (specify): _____

16. In the study, we recognize that there may be other sources of income that you may have used to survive on the street. Please know that your confidentiality is protected if you would like to talk me about these sources of income, but like the other questions you do not have to tell me about them.
Record what they tell you. Provide examples, such as sex work, sexling or running illegal, if needed.



17. What was your total income, last month?

Enter as dollars, round up to the nearest dollar. If clarification is required, we are looking for gross income, before tax.

18. Do you have a provincial health card number?

If they have no number, flag with your service team according to local protocols (see below)

No

Yes, in possession (write down record in profile at end of interview, and destroy paper)

Yes, but not here (ask 18.a)

Don't know

Declined

19. Is there a doctor's office, hospital, clinic or housing office that you've been to recently that we could be able to get your health card number from?

Record address or name in intersection and phone number (if available)

Thanks for all your answers so far. We have only about 10 questions left in this section. Some of these last questions can be quite personal to some people, but they are important to ask at the beginning so that we will be able to see how things might change for people as the study goes along.

20. In the past five years, have you been hospitalized for a mental illness at any time for longer than 6 months?

Yes No Don't know Declined

21. In the past five years, have you been hospitalized 2 or more times in any one year period for a mental illness?

Only count hospitalizations that lasted at least one night.

Yes No Don't know Declined

22. Have you ever received treatment, counseling or harm reduction services for your use of alcohol or any drug, not counting cigarettes?

Yes No Don't know Declined

23. In the past six months, have you been arrested for criminal activity more than once, or been imprisoned at least once, or served probation or other community sanction?

Yes No Don't know Declined

23. In the past 6 months, did you spend one or more nights in a hospital, detox centre, jail or shelter?

If Yes, ask 23.a through 23.f.

Yes No Don't know Declined

23.a For the most recent stay, what is the name of the hospital, detox centre, jail or shelter?

Use codes from Coding List #2.

23.b Approximately how many days were you in [location name]?

If Participant stayed more than one time in this location, enter total days in past 6 months.

23.c For the stay before that, what is the name of the hospital, detox centre, jail or shelter?

Enter 000 if they did not have a second stay.

Demographics, Service & Housing History ID [] [] [] [] [] [] Y [2] [0] [] M [] [] D [] []

23.d. Approximately how many days were you in [location name]?

Enter 999 if they did not have a second stay. If Participant stayed more than one time in this location, enter total days in past 6 months.

[] [] [] []

23.e And for the stay before that, what is the name of the hospital, detox centre, jail or shelter?

Enter 999 if they did not have a third stay.

[] [] [] []

23.f. Approximately how many days were you in [location name]?

Enter 999 if they did not have a third stay. If Participant stayed more than one time in this location, enter total days in past 6 months.

[] [] [] []

24. When did you first become homeless (year)?

[] [] [] []

25. In your lifetime, what is the total amount of time you have been homeless (months)?

[] [] [] []

26. How long was your longest single period of homelessness (months)?

[] [] [] []

27. When did your last period of homelessness end?

Ask for precariously housed only. Please estimate if not known exactly.

Y [] [] [2] [0] [] [] M [] [] D [] []

28. What is your date of birth? Yr ____ M ____ D ____

29. Primary diagnosis (please indicate category):

- Developmental Handicap
- Disorder of childhood/adolescence
- Substance-related disorder
- Schizophrenia
- Mood disorder
- Anxiety disorder
- Organic disorder
- Personality disorder
- Other
- Unknown

30. Secondary diagnosis (please indicate category):

- Developmental Handicap
- Disorder of childhood/adolescence
- Substance-related disorder
- Schizophrenia
- Mood disorder
- Anxiety disorder
- Organic disorder
- Personality disorder
- Other
- Unknown

31. Other diagnoses, including medical problems (please specify):

Type of Living Situation

1. Group home (permanent) – Level I (24 hour support)
2. Group home (permanent) – Level II (daily support)
3. Group home (permanent) – Level III (weekly support)
4. Group home (permanent) – (less than weekly but more than monthly support)
5. Group home (permanent) – (less than monthly but more than annually)
6. Apartment (permanent) – Level I (24 hour support)
7. Apartment (permanent) – Level II (daily support)
8. Apartment (permanent) – Level III (weekly support)
9. Apartment (permanent) – (less than weekly but more than monthly support)
10. Apartment (permanent) – (less than monthly but more than annually)
11. Halfway house (transitional) – Level I (24 hour support)
12. Halfway house (transitional) – Level II (daily support)
13. Halfway house (transitional) – Level III (weekly support)
14. Halfway house (transitional) – (less than weekly but more than monthly support)
15. Halfway house (transitional) – (less than monthly but more than annually)
16. Apartment (transitional) – Level I (24 hour support)
17. Apartment (transitional) – Level II (daily support)
18. Apartment (transitional) – Level III (weekly support)
19. Apartment (transitional) – (less than weekly but more than monthly support)
20. Apartment (transitional) – (less than monthly but more than annually)
21. Private apartment or house
22. Social/Public apartment or house
23. Unregulated rooming house (no meals provided)
24. Unregulated room-and-board (includes meals, no program or supervision)
25. Unregulated room-and-board (includes meals and supervision)
26. Home for Special Care
27. Parent's home
28. Foster family
29. Hostel – Emergency
30. Hostel – Transitional
31. Hostel – Long Term
32. Psychiatric hospital
33. General hospital psychiatric unit
34. General hospital non-psychiatric unit
35. Jail or prison
36. Nursing home/Long Term care home
37. Residential Treatment Home
38. Group independent living
39. Congregate model (apartment with shared social space and meals provided)
40. Hotel
41. Other (specify _____)

Reasons for Move

1. internally controlled – desired change, perceived as self-motivated
2. externally controlled – not a desired change, perceived as being caused by external forces

Delighted – Terrible Scale

See attached chart.

Categories are as follows:

1. Terrible
2. Unhappy
3. Mostly Dissatisfied
4. Mixed (about equally satisfied and dissatisfied)
5. Mostly Satisfied
6. Pleased
7. Delighted

Summary:

How many undesirable moves have you had in the last 5 years? _____

Date of Interview: _____

Participant Code: _____

Interviewer: _____

Appendix E

Health, Social, Justice Service Use

ID

Y 2 0

M

D

Health and Social Service Use

Now I would like to go over some of the healthcare and social services you may have received. Once again, I'd like to use a CALENDAR to help us figure out what services you've had.

In the past month (orient to calendar), that is, from [DATE to DATE], have you:

1. Seen a health or social services provider at his or her office? By a health provider we mean someone you have seen for a health concern (such as a doctor, nurse, psychiatrist). By a social services provider we mean someone you have seen to get help with things like housing and finances (such as a housing worker, a social worker, and including justice workers such as probation officers).

If Yes, ask questions below for each provider. If the provider was seen at a hospital, record in section 4.

Yes No Don't know Declined

- 1.a.1 Who have you visited at their office this past month?

Use codes from coding list #3.

- 1.a.2 How many times?

- 1.a.3 Approximately how long was each visit?

Enter in minutes and count the provider's time only.

- 1.a.4 Is the office you visited in an institutional setting (such as in a hospital) or a community setting (such as a community clinic)?

Institutional Community

- 1.a.5 What kind of service did you get from this person?

Do not read list. Record all that apply based on description.

- | | |
|---|---|
| <input type="checkbox"/> case management | <input type="checkbox"/> medication review |
| <input type="checkbox"/> combined medication and therapy | <input type="checkbox"/> individual therapy |
| <input type="checkbox"/> group therapy | <input type="checkbox"/> family/couples therapy |
| <input type="checkbox"/> addictions therapy | <input type="checkbox"/> diagnostic/assessment |
| <input type="checkbox"/> physical or occupational therapy | <input type="checkbox"/> help with income |
| <input type="checkbox"/> probation meeting | <input type="checkbox"/> complementary/alternative medicine |
| <input type="checkbox"/> help with daily living | <input type="checkbox"/> help with housing |
| <input type="checkbox"/> general physical exam | <input type="checkbox"/> specific health concern |
| <input type="checkbox"/> Other | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Declined | |

- 1.b.1 Who else have you visited at their office this past month?

- 1.b.2 How many times?

- 1.b.3 Approximately how long was each visit?

Enter in minutes and count provider's time only.

Health, Social, Justice Service Use

ID _____ Y 2 0 _____ M _____ D _____

1.b.4 Is the office you visited in an institutional setting (such as in a hospital) or a community setting (such as a community clinic)?

Institutional Community

1.b.5 What kind of service did you get from this person?

Do not read list. Enter all that apply based on description.

- | | |
|---|---|
| <input type="checkbox"/> case management | <input type="checkbox"/> medication review |
| <input type="checkbox"/> combined medication and therapy | <input type="checkbox"/> individual therapy |
| <input type="checkbox"/> group therapy | <input type="checkbox"/> family/couples therapy |
| <input type="checkbox"/> addictions therapy | <input type="checkbox"/> diagnostic/assessment |
| <input type="checkbox"/> physical or occupational therapy | <input type="checkbox"/> help with income |
| <input type="checkbox"/> probation meeting | <input type="checkbox"/> complementary/alternative medicine |
| <input type="checkbox"/> help with daily living | <input type="checkbox"/> help with housing |
| <input type="checkbox"/> general physical exam | <input type="checkbox"/> specific health concern |
| <input type="checkbox"/> Other | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Declined | <input type="checkbox"/> Not applicable |

1.c.1 Who else have you visited at their office this past month?

1.c.2 How many times?

1.c.3 Approximately how long was each visit?

Enter in minutes and count provider's time only.

1.c.4 Is the office you visited in an institutional setting (such as in a hospital) or a community setting (such as a community clinic)?

Institutional Community

1.c.5 What kind of service did you get from this person?

Do not read. Enter all that apply based on description.

- | | |
|---|---|
| <input type="checkbox"/> case management | <input type="checkbox"/> medication review |
| <input type="checkbox"/> combined medication and therapy | <input type="checkbox"/> individual therapy |
| <input type="checkbox"/> group therapy | <input type="checkbox"/> family/couples therapy |
| <input type="checkbox"/> addictions therapy | <input type="checkbox"/> diagnostic/assessment |
| <input type="checkbox"/> physical or occupational therapy | <input type="checkbox"/> help with income |
| <input type="checkbox"/> probation meeting | <input type="checkbox"/> complementary/alternative medicine |
| <input type="checkbox"/> help with daily living | <input type="checkbox"/> help with housing |
| <input type="checkbox"/> general physical exam | <input type="checkbox"/> specific health concern |
| <input type="checkbox"/> Other | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Declined | <input type="checkbox"/> Not applicable |

1.d.1 Who else have you visited at their office this past month?

1.d.2 How many times?



Health, Social, Justice Service Use

ID Y 2 0 ... M ... D ...

1.d.3 Approximately how long was each visit?

Enter in minutes and count provider's time only.

1.d.4 Is the office you visited in an institutional setting (such as in a hospital) or a community setting (such as a community clinic)?

 Institutional Community

1.d.5 What kind of service did you get from this person?

Do not read, enter all that apply based on description.

- | | |
|---|---|
| <input type="checkbox"/> case management | <input type="checkbox"/> medication review |
| <input type="checkbox"/> combined medication and therapy | <input type="checkbox"/> individual therapy |
| <input type="checkbox"/> group therapy | <input type="checkbox"/> family/couples therapy |
| <input type="checkbox"/> addictions therapy | <input type="checkbox"/> diagnostic/assessment |
| <input type="checkbox"/> physical or occupational therapy | <input type="checkbox"/> help with income |
| <input type="checkbox"/> probation meeting | <input type="checkbox"/> complementary/alternative medicine |
| <input type="checkbox"/> help with daily living | <input type="checkbox"/> help with housing |
| <input type="checkbox"/> general physical exam | <input type="checkbox"/> specific health condition |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Other | <input type="checkbox"/> Not Applicable |

1.e.1 Who else have you visited at their office this past month?

1.e.2 How many times?

1.e.3 Approximately how long was each visit?

Enter in minutes and count provider's time only.

1.e.4 Is the office you visited in an institutional setting (such as in a hospital) or a community setting (such as a community clinic)?

 Institutional Community

1.e.5 What kind of service did you get from this person?

Do not read, enter all that apply based on description.

- | | |
|---|---|
| <input type="checkbox"/> case management | <input type="checkbox"/> medication review |
| <input type="checkbox"/> combined medication and therapy | <input type="checkbox"/> individual therapy |
| <input type="checkbox"/> group therapy | <input type="checkbox"/> family/couples therapy |
| <input type="checkbox"/> addictions therapy | <input type="checkbox"/> diagnostic/assessment |
| <input type="checkbox"/> physical or occupational therapy | <input type="checkbox"/> help with income |
| <input type="checkbox"/> probation meeting | <input type="checkbox"/> complementary/alternative medicine |
| <input type="checkbox"/> help with daily living | <input type="checkbox"/> help with housing |
| <input type="checkbox"/> general physical exam | <input type="checkbox"/> specific health condition |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Other | <input type="checkbox"/> Not Applicable |

1.f.1 Who else have you visited at their office this past month?



Health, Social, Justice Service UseID _____ Y 20 M _____ D _____

1.f.2 How many times?

1.f.3 Approximately how long was each visit?

Enter in minutes and count provider's time only.

1.f.4 Is the office you visited in an institutional setting (such as in a hospital) or a community setting (such as a community clinic)?

 Institutional Community

1.f.5 What kind of service did you get from this person?

Do not read, enter all that apply based on description.

- | | |
|---|---|
| <input type="checkbox"/> case management | <input type="checkbox"/> medication review |
| <input type="checkbox"/> combined medication and therapy | <input type="checkbox"/> individual therapy |
| <input type="checkbox"/> group therapy | <input type="checkbox"/> family/couples therapy |
| <input type="checkbox"/> addictions therapy | <input type="checkbox"/> diagnostic/assessment |
| <input type="checkbox"/> physical or occupational therapy | <input type="checkbox"/> help with income |
| <input type="checkbox"/> probation meeting | <input type="checkbox"/> complementary/alternative medicine |
| <input type="checkbox"/> help with daily living | <input type="checkbox"/> help with housing |
| <input type="checkbox"/> general physical exam | <input type="checkbox"/> specific health condition |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Other | <input type="checkbox"/> Not Applicable |

2. This past month, have you talked on the phone about your health, housing, or other needs with a health or social services provider (not just setting an appointment and not including crisis or health line calls)?

If Yes, ask questions below for each provider. Capture only calls with providers that are or would provide direct care for a need, including social and justice providers (e.g. probation officers).

 Yes No Don't know Declined

2.a.1 Who have you spoken with on the phone this past month?

Use codes from Coding List #3

2.a.2 How many times?

2.b.1 Who else have you spoken with on the phone this past month?

2.b.2 How many times?

3. Again, in the past month, have you been visited by a health or social service provider (not counting crisis teams) at your home or anywhere else?

If Yes, ask questions below for each provider. 'Anywhere else' means on the street, but not in an agency or similar organization.

 Yes No Don't know Declined

3.a.1 Who visited you?

Use codes from Coding List #3



Health, Social, Justice Service Use

ID Y 2 0 . . M . . D . . .

3.a.2 How many times?

3.a.3 Approximately how long was each visit?

Enter in minutes and count provider's time only. For more than one visit record the typical/average length of visits across visits.

3.a.4 What kind of service did you get from this person?

- | | |
|---|---|
| <input type="checkbox"/> case management | <input type="checkbox"/> medication review |
| <input type="checkbox"/> combined medication and therapy | <input type="checkbox"/> individual therapy |
| <input type="checkbox"/> group therapy | <input type="checkbox"/> family/couples therapy |
| <input type="checkbox"/> addictions therapy | <input type="checkbox"/> diagnostic/assessment |
| <input type="checkbox"/> physical or occupational therapy | <input type="checkbox"/> help with income |
| <input type="checkbox"/> probation meeting | <input type="checkbox"/> complementary/alternative medicine |
| <input type="checkbox"/> help with daily living | <input type="checkbox"/> help with housing |
| <input type="checkbox"/> general physical exam | <input type="checkbox"/> specific health concern |
| <input type="checkbox"/> Other | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Declined | |

3.b.1 Who else visited you?

3.b.2 How many times?

3.b.3 Approximately how long was each visit?

Enter in minutes and count provider's time only.

3.b.4 What kind of service did you get from this person?

- | | |
|---|---|
| <input type="checkbox"/> case management | <input type="checkbox"/> medication review |
| <input type="checkbox"/> combined medication and therapy | <input type="checkbox"/> individual therapy |
| <input type="checkbox"/> group therapy | <input type="checkbox"/> family/couples therapy |
| <input type="checkbox"/> addictions therapy | <input type="checkbox"/> diagnostic/assessment |
| <input type="checkbox"/> physical or occupational therapy | <input type="checkbox"/> help with income |
| <input type="checkbox"/> probation meeting | <input type="checkbox"/> complementary/alternative medicine |
| <input type="checkbox"/> help with daily living | <input type="checkbox"/> help with housing |
| <input type="checkbox"/> general physical exam | <input type="checkbox"/> specific health concern |
| <input type="checkbox"/> Other | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Declined | <input type="checkbox"/> Not applicable |

Now I will be asking about the past 6 months, not the past month as in the previous questions. So, from [DATE to DATE], have you:

4. Had services at a hospital where you didn't stay overnight (i.e. an outpatient service or day hospital); NOT including ER visits and NOT including laboratory or diagnostic tests.

If Yes, ask questions below for each place.

Yes No Don't know Declined



Health, Social, Justice Service Use

ID _____ Y 2_0... M ... D

- 4.a.1 (Place 1) What is the name of the outpatient service or day hospital program that you attended most recently?

Use code from Coding List #4.

[] [] [] []

- 4.a.2 If other, ask: What was the name of the facility?

- 4.a.3 If other, ask: What kind of service did you receive?

- 4.a.4 How many days or appointments did you attend?

[] [] [] []

- 4.b.1 (Place 2) What was the name of the outpatient service or day hospital program that you attended before that?

[] [] [] []

- 4.b.2 If other, ask: What was the name of the facility?

- 4.b.3 If other, ask: What kind of service did you receive?

- 4.b.4 How many days or appointments did you attend?

[] [] [] []

- 4.c.1 (Place 3) And what was the name of the program or clinic that you attended before that?

[] [] [] []

- 4.c.2 If other, ask: What was the name of the facility?

- 4.c.3 If other, ask: What kind of service did you receive?

- 4.c.4 How many days or appointments did you attend?

[] [] [] []

5. At anytime in the past six months, have you called a crisis line, 911 or other health line?

If Yes, ask questions 5.a.1 and 5.a.2.

 Yes No Don't know Declined

- 5.a.1 What was the name of the crisis or health line?

Use codes from Coding List #5

[] [] [] []

- 5.a.2 How many times did you call?

[] [] [] []

6. Again in the past 6 months, have you been visited by a crisis team?

If Yes, ask questions below for each team.

 Yes No Don't know Declined


Health, Social, Justice Service Use

ID _____ Y 2 0 _____ M _____ D _____

- 6.a.1 (Team 1) What was the name of the team?
Use codes from Coding List #6.
[][][][]
- 6.a.2 How many times did they visit you?
[][][][]
- 6.b.1 (Team 2) What was the name of the second team that visited you?
[][][][]
- 6.b.2 How many times did they visit you?
[][][][]
7. In the past 6 months, have you been to a hospital emergency room?
If Yes, ask questions 7.a then subsequent questions for each ER visit.
 Yes No Don't know Declined
- 7.a Approximately how many emergency room visits did you have in total?
[][][]
- 7.a.1 (Visit 1) What was the name of the hospital where you last went to the ER?
Use codes from Coding List #2.
[][][][]
- 7.a.2 What was the reason for that ER visit?
Enter based on their description. "Other" may include: to get a prescription; to get warm, food or rest; or forced against will, etc.
 Psychiatric Medical Other Don't know Declined
- 7.b.1 (Visit 2) What was the name of the hospital for the time before that?
[][][][]
- 7.b.2 What was the reason for that ER visit?
Enter based on their description. "Other" may include: to get a prescription; to get warm, food or rest; or forced against will, etc.
 Psychiatric Medical Other Don't know Declined NA
- 7.c.1 (Visit 3) And what was the name of the hospital for the time before that?
[][][][]
- 7.c.2 What was the reason for that ER visit?
Enter based on their description. "Other" may include: to get a prescription; to get warm, food or rest; or forced against will, etc.
 Psychiatric Medical Other Don't know Declined NA
8. At any time in the past 6 months, have you been taken by ambulance to a hospital?
If Yes, ask question 8.a.
 Yes No Don't know Declined
- 8.a Approximately how many ambulance trips did you have?
[][][][]



Health, Social, Justice Service Use

ID Y 2 0 M D

9. And, in the past 6 months, have you been to any drop-in centres, community meal centres, or meal programs (do not count places that you stayed overnight, but do include shelters if you did NOT stay overnight)?

If Yes, ask questions below for each Centre then ask 9.f - 9.i.

Yes No Don't know Declined

- 9.a.1 (Centre 1) What was the name of the last place you went to?

Use codes from Coding List #7

- 9.a.2 How many times did you go?

- 9.b.1 (Centre 2) What was the name of the place you went to before that?

- 9.b.2 How many times did you go?

- 9.c.1 (Centre 3) What was the name of the place you went to before that?

- 9.c.2 How many times did you go?

- 9.d.1 (Centre 4) What was the name of the place you went to before that?

- 9.d.2 How many times did you go?

- 9.e.1 (Centre 5) What was the name of the place you went to before that?

- 9.e.2 How many times did you go?

- 9.f Did you see a medical doctor at any of these centres?

Yes No

- 9.g What kind of services did you receive from any medical doctor at any centre?

Do not read list, code based on what they tell you.

- medication review combined medication and therapy
 individual therapy diagnostic/assessment
 general physical exam specific health concern
 Other Don't know
 Declined

- 9.h How many times did you see any medical doctor at a centre?

- 9.i Approximately how long did you see a medical doctor each time?

Enter the average amount of time across all visits, counting doctor's time only.



Health, Social, Justice Service Use

ID _____ Y 2 0 _____ M _____ D _____

10. Any time in the past 6 months, did you go to a food bank to get food?

If Yes, ask question 10.a.

 Yes No Don't know Declined

- 10.a How many times did you go?

--	--	--	--

11. Earlier (or in the first interview) you told me that you had [CONDITIONS]. Is this correct?

 Yes No Don't know Declined

- 11.a.1 So for [Condition 1], in the past 6 months, have you received treatment of any kind that you have NOT already mentioned?

If Yes, ask questions below for each condition, then ask 11.c.; enter for the condition most serious first, then next most serious.

 Yes No Don't know Declined

- 11.a.2 If Yes, describe:

- 11.b.1 And what about any service for [Condition 2] in the past 6 months that you have NOT already mentioned?

 Yes No Don't know Declined Not applicable

- 11.b.2 If Yes, describe:

- 11.c Received any other service for ANY health condition?

If Yes, ask 11.c.i.

 Yes No Don't know Declined

- 11.c.i If Yes, describe:

Justice Services Use

Now I would like to go over some of the justice services you may have received in the past 6 months. This information is needed in the study to see if housing relates to things like police contacts and experiencing violence. Your answers are confidential and for the research only. Once again I'd like to use a calendar to help us figure out what services you've had in the past 6 months. So by the past 6 months I mean last MONTH/YEAR to right now.

Police Contacts Without Arrest

12. In the past 6 months, have you had contacts with the police that did NOT result in detention, arrest, charge or conviction? By contacts we mean any time you talked directly with a police officer about any concern or any time a police officer talked directly with you.

If yes, ask 12.a. then subsequent questions for each time.

 Yes No Don't know Declined

- 12.a How many?

--	--	--

- 12.a.1 Thinking of the most recent time, why did you have contact with the police officer?

(e.g., victimization, crisis, other help-seeking, behavior that might be against the law)? (Record in participant's own words)



Health, Social, Justice Service UseID Y 20 M D

- 12.b.1 Thinking of the time before that, why did you have contact with the police officer?
(e.g., victimization, crisis, other help-seeking, behavior that might be against the law)? (Record in participant's own words)
- _____

- 12.c.1 And the time before that, why did you have contact with the police officer?
(e.g., victimization, crisis, other help-seeking, behavior that might be against the law)? (Record in participant's own words)
- _____

Contacts With Other Community Authorities

13. In the past 6 months, not counting police, have you had contacts with other authorities in the community, such as security staff in parkades, malls, transit or anywhere else?

If yes, ask 13.a. then subsequent questions for each time.

Yes No Don't know Declined

- 13.a How many times?

- 13.a.1 Thinking of the most recent time, why did you have contact with this person?
(Record in participant's own words)
- _____

- 13.b.1 Thinking of the time before that, why did you have contact with this person?
(Record in participant's own words)
- _____

- 13.c.1 And the time before that, why did you have contact with this person?
(Record in participant's own words)
- _____

Detention by Police for 24 Hours or Less

14. In the past 6 months, have you been detained by the police or taken anywhere by the police (other than a police cell)? For example, have the police taken you to a hospital, shelter, or a residence?

If yes, ask 14.a. and then subsequent questions for each time.

Yes No Don't know Declined

- 14.a How many times?

- 14.a.1 Thinking of the most recent time, why were you detained or taken by police?
(Record in participant's own words)
- _____

- 14.b.1 Thinking of the time before that, why were you detained or taken by police?
(Record in participant's own words)
- _____

- 14.c.1 And the time before that, why were you detained or taken by police?
(Record in participant's own words)
- _____



Health, Social, Justice Service Use

ID _____ Y 2 0 _____ M _____ D _____

15. In the past 6 months, have you been held in a police cell for 24 hours or less?

This includes being placed in a holding cell, e.g., under the Intoxicated Person's Detention Act, MB). If yes, ask 15.a. and 15.b. then subsequent questions for each time.

Yes No Don't know Declined

- 15.a. How many times?

--	--	--	--

- 15.b. How many hours?

(RA enters total amount of time across events)

--	--	--	--

- 15.a.1 Thinking of the most recent time, why were you placed in the police cell?

(Record in participant's own words)

- 15.b.1 Thinking of the time before that, why were you placed in the police cell?

(Record in participant's own words)

- 15.c.1 And the time before that, why were you placed in the police cell?

(Record in participant's own words)

Arrests

16. In the past 6 months, have you been arrested?

If yes, ask 16.a. and then subsequent questions for each arrest.

Yes No Don't Know Declined

- 16.a. How many times?

--	--	--	--

- 16.a.1 (Arrest 1) Thinking of the most recent time, why were you arrested?

(Record in participant's own words)

- 16.a.2 Did this arrest result in a formal charge?

Yes No Don't Know Declined

- 16.a.3 If yes, what was the charge?

(Record in participant's own words)

- 16.b.1 (Arrest 2) Thinking of the time before that, why were you arrested?

(Record in participant's own words)

- 16.b.2 Did this arrest result in a formal charge?

If only one arrest, enter Not Applicable

Yes No Don't Know Declined Not Applicable



Health, Social, Justice Service UseID _____ Y 2 Q _____ M _____ D _____

16.b.3 If yes, what was the charge?

(Record in participant's own words)

16.c.1 (Arrest 3) And the time before that, why were you arrested?

(Record in participant's own words)

16.c.2 Did this arrest result in a formal charge?

If only one arrest, enter Not Applicable

 Yes No Don't Know Declined Not Applicable

16.c.3 If yes, what was the charge?

(Record in participant's own words)

Court Appearances

17. Have you had any court appearances in the past 6 months?

If yes, ask 17.a. then subsequent questions for each appearance.

 Yes No Don't know Declined

17.a How many?

17.a.1 (Appearance 1) Thinking of the most recent time, why did you appear in court?

(Record in participant's own words)

17.a.2 What type of court appearance was this?

- | | |
|---|---|
| <input type="radio"/> Civil (e.g., small claims) | <input type="radio"/> Criminal |
| <input type="radio"/> Family | <input type="radio"/> Highway Traffic |
| <input type="radio"/> Diversion (Drug Court, Mental Health Court) | <input type="radio"/> Review Board (Parole/Probation/Mental Health) |
| <input type="radio"/> Other (e.g., residential tenancies) | <input type="radio"/> Don't know |
| <input type="radio"/> Declined | |

17.a.3 If other, specify:

17.b.1 (Appearance 2) Thinking of the time before that, why did you appear in court?

(Record in participant's own words)

17.b.2 What type of court appearance was this?

- | | |
|---|---|
| <input type="radio"/> Civil (e.g., small claims) | <input type="radio"/> Criminal |
| <input type="radio"/> Family | <input type="radio"/> Highway Traffic |
| <input type="radio"/> Diversion (Drug Court, Mental Health Court) | <input type="radio"/> Review Board (Parole/Probation/Mental Health) |
| <input type="radio"/> Other (e.g., residential tenancies) | <input type="radio"/> Don't Know |
| <input type="radio"/> Declined | <input type="radio"/> Not Applicable |



Health, Social, Justice Service Use

ID _____ Y 2 0 _____ M _____ D _____

17.b.3 If other, specify:

17.c.1 (Appearance 3) And the time before that, why did you appear in court?

(Record in participant's own words)

17.c.2 What type of court appearance was this?

- Civil (e.g., small claims) Criminal
 Family Highway Traffic
 Diversion (Drug Court, Mental Health Court) Review Board (Parole/Probation/Mental Health)
 Other (e.g., residential tenancies) Don't Know
 Declined Not Applicable

17.c.3 If other, specify:
_____**Justice Service Programs**

18. Have you participated in any justice service programs [e.g., diversion programs such as Drug Treatment Court, Mental Health Court], aboriginal justice or restorative justice programs, or victim services)?

If yes, ask 18.a. then subsequent questions for each program.

 Yes No Don't know Declined

18.a How many?

18.a.1 Thinking of the first program, what kind of program was it?

(Record in participant's own words)

18.b.1 Thinking of the second program, what kind of program was it?

(Record in participant's own words)

18.c.1 Thinking of the third program, what kind of program was it?

(Record in participant's own words)
_____**Victimization**

Thanks so much for your patience and honesty on these questions. Now I'd like to ask a few questions about some unfortunate things that might have happened to you in the past 6 months. Remember that you can decline to answer if you wish.

19. During the past 6 months, did anyone take or try to take something from you by force or threat of force?

If Yes, ask 19.a.

 Yes No Don't know Declined

19.a How many times did this happen?

Health, Social, Justice Service Use

ID [] [] [] [] [] [] Y [] [] [] [] M [] [] D [] []

20. During the past 6 months, did anyone threaten to hit or attack you, or threaten you with a weapon?

If Yes, ask 20.a.

Yes No Don't know Declined

20.a. How many times did this happen?

[] [] [] []

21. In the past 6 months, did anyone hit or attack you (by attack we mean anything from being hit, slapped, pushed or grabbed to being shot or beaten) ?

If Yes, ask 21.a.

Yes No Don't Know Declined

21.a. How many times did this happen?

[] [] [] []

22. During the past 6 months, has anyone forced you or attempted to force you into any unwanted sexual activity, by threatening you, holding you down or hurting you in some way?

If Yes, ask 22.a.

Yes No Don't know Declined

22.a. How many times did this happen?

[] [] [] []

23. Apart from what you have told me, were there any other crimes that happened to you during the past 6 months, which may or may not have been reported to the police?

Yes No Don't know Declined

Prescription Medication Side Effects

The last few questions are about side effects of prescription medications you've taken in the past 6 months.

Prescription Medication Side Effects

24. In the past 6 months, have you experienced side effects from any prescription medication?

If Yes, ask questions 24.a and 24.b. If they have NOT taken any prescription meds, enter NA.

Yes No Don't know Declined NA

24.a. Please rate how much these side effects have affected your daily life in the past 6 months; would you say not at all, a little, some, or a lot?

Not at all A little Some A lot

Don't know Declined

24.b. In the past 6 months, have you stopped taking any prescribed medication because of the side effects?

Yes No Don't know Declined

Thank you so much for all the information you've shared with me today - which is very important to understanding how housing is related to health and recovery.

Appendix F

Quality of Life Inventory 20

ID

Y 2 0 M J

Now I'll read a list of things about your life overall. I recognize that some of these things may be hard to talk about for some people so I appreciate your patience. For each item, I'd like you to tell me how you feel, on a scale of 1 to 7, where 1=terrible and 7=delighted.

1. How do you feel about your family in general?
 1 2 3 4 5 6 7 Don't know Declined
2. How do you feel about how often you have contact with your family?
 1 2 3 4 5 6 7 Don't know Declined
3. How do you feel about the way you and your family act toward each other?
 1 2 3 4 5 6 7 Don't know Declined
4. How do you feel about the way things are in general between you and your family?
 1 2 3 4 5 6 7 Don't know Declined
5. How do you feel about how comfortable and well off you are financially?
 1 2 3 4 5 6 7 Don't know Declined
6. How do you feel about the amount of money you have available to spend for fun?
 1 2 3 4 5 6 7 Don't know Declined
7. How do you feel about the way you spend your spare time?
 1 2 3 4 5 6 7 Don't know Declined
8. How do you feel about the amount of time you have to do the things you want to do?
 1 2 3 4 5 6 7 Don't know Declined
9. How do you feel about the chance you have to enjoy pleasant or beautiful things?
 1 2 3 4 5 6 7 Don't know Declined
10. How do you feel about the amount of fun you have?
 1 2 3 4 5 6 7 Don't know Declined
11. How do you feel about the amount of relaxation in your life?
 1 2 3 4 5 6 7 Don't know Declined
12. How do you feel about the living arrangements where you live?
 1 2 3 4 5 6 7 Don't know Declined
13. How do you feel about how safe you are in your neighbourhood?
 1 2 3 4 5 6 7 Don't know Declined
14. How do you feel about how safe you are where you live?
 1 2 3 4 5 6 7 Don't know Declined
15. How do you feel about the chance of finding someone to help in an emergency?
 1 2 3 4 5 6 7 Don't know Declined
16. How do you feel about your personal safety?
 1 2 3 4 5 6 7 Don't know Declined
17. How do you feel about the things you do with other people?
 1 2 3 4 5 6 7 Don't know Declined

Quality of Life Inventory 20

ID

Y 2 0

M

D

17. How do you feel about the amount of time you spend with other people?

1 2 3 4 5 6 7 Don't know Declined

18. How do you feel about the people you see socially?

1 2 3 4 5 6 7 Don't know Declined

20. How do you feel about your life overall (as a whole)?

1 2 3 4 5 6 7 Don't know Declined

Now two questions about relationships.

21. Do you have a close confidante, that is, someone that you can share sensitive personal information with?

Health, social service or other providers do not count as close confidantes.

Yes No Don't know Declined

21 a. Do you see this person at least once a month? 'See' can include having contact on the phone or on-line as well as seeing the confidante in person.

Yes No Don't know Declined



Appendix G

Multnomah Community Ability Scale

Y 2 0 M D

Now rate the MCAS items based on all of the information from the screening interview, this interview, and your observations [GENERATE REPORT]. If you need to use the probes for a few items, explain that you just need to clarify a couple of things to finish up the interview.

1. Physical health

How impaired is the participant by his/her health status?

- 1 - Extreme health impairment (Major medical problem that precludes participant's participation in most daily activities)
- 2 - Marked health impairment (Major medical problem that interferes with most of participant's activities, e.g. multiple sclerosis that requires use of walker)
- 3 - Moderate health impairment (Medical problem that interferes some with participant's activities, e.g. an uncontrolled seizure condition)
- 4 - Slight health impairment (e.g., Controlled seizure condition or recent tooth abscess)
- 5 - No health impairment

2. Intellectual functioning

What is the participant's level of general intellectual functioning?

- 1 - IQ < 60, Extremely low intellectual functioning (Not literate)
- 2 - IQ in the 60's, Moderately low intellectual functioning (Mild mental retardation or has literacy problems or major deficits in orientation)
- 3 - IQ in the 70's, Low intellectual functioning (Borderline intellectual functioning; very limited conceptual thinking; 2 or more deficits in orientation)
- 4 - IQ in the 80's, Slightly low intellectual functioning (Low average IQ; mild deficits in organization)
- 5 - IQ in the 90's and above, Normal or above intellectual functioning (Well oriented; cognitive skills demonstrated in interview)

3. Thought processes/psychosis

How impaired are the participant's thought processes as evidenced by such symptoms as hallucinations, delusions, tangentiality, loose associations, response latencies, ambivalence, incoherence, etc.?

- 1 - Extremely impaired thought processes (Speech word salad or inability to focus on anything but psychotic ideas)
- 2 - Markedly impaired thought processes (Speech which is difficult to follow or preoccupation with psychotic ideas)
- 3 - Moderately impaired thought processes (Hallucinations, delusions, or disorganization which interfere with functioning some of the time)
- 4 - Slightly impaired thought processes (Mild hallucinations or disorganized thinking or occasional delusional thinking)
- 5 - No impairment, normal thought processes

4. Mood abnormality

How abnormal is the participant's mood as evidenced by such symptoms as constricted mood, extreme mood swings, depression, rage, mania, etc.?

- 1 - Extremely abnormal mood (Despondence or uncontrolled mania or rage)
- 2 - Markedly abnormal mood (Mania or marked irritability or severe depression)
- 3 - Moderately abnormal mood (Moderate depression or marked blunted affect or significant irritability or passive suicidal ideation)
- 4 - Slightly abnormal mood (Mild depression or mild blunted affect or mild irritability)
- 5 - No impairment, normal mood

Multnomah Community Ability Scale

ID Y 2.0 M D

5. **Response to stress and anxiety**
How impaired is the participant by inappropriate and/or dysfunctional responses to stress and anxiety?
- 1 - Extremely impaired response (Extreme reactivity to stressors, from acting out to paralysis; resulting in inability to adapt)
 - 2 - Markedly impaired response (Marked reactivity; very limited problem solving in response to stress; need for large amount of support and intervention from others; daily panic attacks or severe anxiety)
 - 3 - Moderately impaired response (Moderately reactive to stress; needs assistance in order to cope)
 - 4 - Slightly impaired response (Somewhat reactive to stress; has some coping skills; responsive to limited intervention)
 - 5 - Normal response
6. **Ability to manage money**
How successfully does the participant manage his/her money and control expenditures?
- 1 - Almost never manages money successfully (Only manages pocket money)
 - 2 - Seldom manages money successfully (Only manages money which is handed out daily)
 - 3 - Sometimes manages money successfully (Money doled out weekly by supervised housing or family; can buy food, cigarettes and manage that money okay; or, manages money on own, but with difficulty)
 - 4 - Manages money successfully a fair amount of the time (Does more than a 3 rating, i.e., pays for rent, treatment, or other bills by self; or, manages all monthly bills with assistance)
 - 5 - Almost always manages money successfully (Generally independent in managing money)
7. **Independence in daily living**
How well does the participant perform independently in day-to-day living? ADL = activities of daily living
- 1 - Almost never performs independently (Minimal to no ADLs even with repeated staff interventions)
 - 2 - Often does not perform independently (Completes only some ADLs, even with prompt and direction)
 - 3 - Sometimes performs independently (Needs consistent prompts for ADLs, but usually does complete most of them)
 - 4 - Often performs independently (May need occasional prompts or has difficulty in one area of ADLs)
 - 5 - Almost always performs independently
8. **Acceptance of illness**
How well does the participant accept (as opposed to deny) his/her psychiatric disability?
- 1 - Almost never accepts disability (Adamantly denies illness and need for treatment)
 - 2 - Infrequently accepts disability (Consistently misunderstands illness or symptoms)
 - 3 - Sometimes accepts disability (Some denial evident in attributing problems to external factors or minimizing seriousness or denying specific symptoms)
 - 4 - Accepts disability a fair amount of the time (Much of the time acknowledges having an illness and/or some specific symptoms)
 - 5 - Almost always accepts disability (Identifies illness and symptoms consistently)



Multnomah Community Ability Scale

ID _____ Y 2 0 _____ M _____ D _____

9. **Social acceptability**

In general, what are other people's reactions to the participant?

- 1 - Very negative (Consistently elicits avoidant reaction from others)
- 2 - Fairly negative (Presentation elicits some negative reaction from others)
- 3 - Mixed, mildly negative to mildly positive
- 4 - Fairly positive (Presentation slightly impaired, but can navigate in public without attracting negative attention)
- 5 - Very positive (No outward appearance of mental illness or impairment)

10. **Social interest**

How frequently does the participant initiate social contact or respond to others' initiation of social contact?

- 1 - Very infrequently (Almost never participates in social activities; usually avoids available social situations)
- 2 - Fairly infrequently (Limited response to invitation or opportunity for social interaction; does not go on recreation outings; e.g., passive interaction with others when smoking)
- 3 - Occasionally (Sometimes initiates and responds to social activities; e.g., goes on outings with program which are arranged by staff, may have some withdrawal from others)
- 4 - Fairly frequently (Respond consistently and initiates occasionally; e.g., has some social contacts outside of activities which are organized by staff)
- 5 - Very frequently (Ongoing initiation and responses to social interactions; e.g., actively maintains social activities outside of household)

11. **Social effectiveness**

How effectively does the participant interact with others?

- 1 - Very ineffectively (Lacking in almost any social skills; inappropriate response to social cues)
- 2 - Ineffectively (Uses only minimal social skills, can not engage in give-and-take of instrumental or social conversations; limited response to social cues)
- 3 - Mixed or dubious effectiveness (Marginal social skills, not always appropriate)
- 4 - Effectively (Is generally able to carry out social interactions with minor deficits, can generally engage in give-and-take conversation with only minor disruption)
- 5 - Very effectively (Social skills are within the normal range)

12. **Social network**

How extensive is the participant's social support network?

- 1 - Very limited network (Nobody)
- 2 - Limited network (Family member or case manager)
- 3 - Moderately extensive network (Family member AND: case manager, friend, or socialization group)
- 4 - Extensive network (Family member and case manager AND: friend or socialization group)
- 5 - Very extensive network (Most of the above and close friends or a partner with some experience of intimacy)



Multnomah Community Ability Scale

ID Y 2 0 M D

13. **Meaningful activity**

How frequently is the participant involved in meaningful activities that are satisfying to him or her? (Rate the participant's perception)

- 1 - Almost never involved (Does nothing outside of meeting basic needs)
- 2 - Seldom involved (May be involved in some passive activities with little enthusiasm)
- 3 - Sometimes involved (Does passive activities such as listening to music, watching TV, with some enthusiasm; at day program, has only passive involvement or skips groups)
- 4 - Often involved (Has some constructive activities with others which are identified as meaningful; active involvement at day program, may include part-time sheltered work activity at day program)
- 5 - Almost always involved (Consistently involved in an interactive activity like work, school, or volunteering outside of a sheltered psychiatric setting)

14. **Medication compliance**

How frequently does the participant comply with his/her prescribed medication regimen? Note: If participant has NOT agreed to take offered medication in the HF intervention, pick "Not applicable" except at baseline when a rating is needed.

- 1 - Almost never complies
- 2 - Infrequently complies (Does not take medication independently; staff directly monitors self-administration of all medications)
- 3 - Sometimes complies (Takes medication on own, but misses frequently and/or needs periodic checks, monitoring, or help with packing medications)
- 4 - Usually complies (Takes medication perfectly with prompting, or takes medication on their own, but misses occasionally)
- 5 - Almost always complies (Takes medication completely independently or compliantly)
- Not applicable

15. **Cooperation with treatment providers**

How freq does the participant cooperate, e.g., with appts., complying with tx plans, and following through on reasonable requests? Note: If participant has NOT agreed to take tx in the HF intervention gp then use NA except at baseline.

- 1 - Almost never cooperates (Does not cooperate at all with treatment plans or keep appointments)
- 2 - Infrequently cooperates (Non-compliant with treatment efforts; does not follow daily schedule, though may keep some appointments)
- 3 - Sometimes cooperates (Follows through some of the time with daily schedule or other treatment activities; is minimally involved in treatment planning)
- 4 - Usually cooperates (Usually keeps doctor's appointments and attends day programs on scheduled days; involved in treatment planning)
- 5 - Almost always cooperates (Rarely misses appointments or scheduled activities, actively engaged in treatment planning/goal setting)
- Not applicable

16. **Alcohol/drug abuse**

How frequently does the participant abuse drugs and/or alcohol?

- 1 - Frequently abuses (Drug/alcohol dependence; daily abuse of alcohol or drugs which causes severe impairment of functioning; inability to function in community secondary to alcohol/drug abuse)
- 2 - Often abuses (Recurrent use of alcohol or abuse of drugs which causes significant effect on functioning)
- 3 - Sometimes abuses (Some use of alcohol or abuse of drugs with some effect on functioning)
- 4 - Infrequently abuses (Occasional use of alcohol or abuse of drugs without impairment)
- 5 - Almost never abuses (Abstinence; no use of alcohol or drugs during rating period)



Multnomah Community Ability Scale

ID Y 2, 0 M D

17. **Impulse control**

How frequently does the participant exhibit episodes of extreme acting out?

- 1 - Frequently acts out (Frequent and/or severe acting out behavior; e.g., behaviors which could lead to criminal charges)
- 2 - Acts out fairly often (Impulsive acts which are fairly often and/or of moderate severity)
- 3 - Sometimes acts out (Some acting out behavior; moderate severity; at least one episode of behavior that is dangerous or threatening)
- 4 - Infrequently acts out (Maybe one or two lapses of impulse control; minor acting out, such as attention-seeking behavior which is not threatening or dangerous)
- 5 - Almost never acts out (No noteworthy incidents)

Thank you for allowing me to make sure the questions are all complete.

Now we will be finding out which group you will be in the study. The computer system determines this at random, like a coin toss. [GO TO THE RANDOMIZATION SCREEN TO GENERATE THE RANDOM ASSIGNMENT]. Make sure to discuss the implications of group assignment according to the language of the consent form at your site, and also ensure back-up support if the Participant seems distressed about this. Next let them know about the timing of subsequent interviews and the incentives, and give them the toll-free number and instructions for the monthly call-ins. Finally give them a couple of copies of the calendar (in case the 3 month interview happens by phone).



Appendix H

Access

ID

Y 2 0 M D

We are almost finished the interview. Thank you again for your answers so far. Just a few final questions about access to healthcare and your activities in the community.

Access to Care

- 1 Do you have a regular medical doctor? (by regular medical doctor we mean a family doctor or GP who is familiar with you and your medical history)

If Yes, go to 2; if other than Yes, ask 1.a and 1.b.

Yes No Don't know Declined

- 1.a Why do you not have a regular medical doctor?

Do not read list; record all that apply.

- | | |
|---|---|
| <input type="checkbox"/> No medical doctors available in the area | <input type="checkbox"/> Medical doctors in the area are not taking new patients |
| <input type="checkbox"/> Have not tried to contact one | <input type="checkbox"/> Had a medical doctor who left or retired |
| <input type="checkbox"/> Seldom or never get sick | <input type="checkbox"/> Recently moved into the area |
| <input type="checkbox"/> Likes to go to different places for different health needs | <input type="checkbox"/> Have moved around a lot (within the area) |
| <input type="checkbox"/> Don't know where to go for care | <input type="checkbox"/> Don't use doctors/treat myself |
| <input type="checkbox"/> Don't have a health card | <input type="checkbox"/> Don't have a telephone number |
| <input type="checkbox"/> Have had negative experience(s) with doctors in the past | <input type="checkbox"/> Too busy finding food, shelter, or other necessities |
| <input type="checkbox"/> Have no transportation | <input type="checkbox"/> The wait for an appointment is too long |
| <input type="checkbox"/> Clinic hours are inconvenient | <input type="checkbox"/> Usual source of health care in the area is no longer available |
| <input type="checkbox"/> Don't Know | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Other - (specify): | |

- 1.b Other (specify):

- 2 Is there a place that you usually go to when you are sick or need advice about your health?

If Yes, ask 2.a and 2.b; if other than Yes, go to 3.

Yes No Don't know Declined

- 2.a What kind of place is it?

Give examples from your site. If the Participant indicates more than one usual place, then ask: What kind of place do you go to most often?

- | | |
|---|---|
| <input type="checkbox"/> Doctor's office | <input type="checkbox"/> Community health Centre (example) |
| <input type="checkbox"/> Walk-in clinic (where you need to show ID) | <input type="checkbox"/> Health clinic (requiring an appointment) |
| <input type="checkbox"/> Telephone health line (example) | <input type="checkbox"/> Hospital emergency room |
| <input type="checkbox"/> Outpatient clinic (example) | <input type="checkbox"/> Health clinic at a shelter, hostel, drop in, bus, nursing clinic |
| <input type="checkbox"/> Aboriginal health centre | <input type="checkbox"/> Alternative health centre (e.g. naturopath, Chinese medicine clinic) |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Other - specify: | |

- 2.b Other (specify):

Access

ID Y 2 0 M D

3. In the past 6 months, was there ever a time when you felt that you needed health care but you didn't receive it?

If Yes, ask 3.a and 3.b

Yes No Don't know Declined

- 3.a Thinking of the most recent time, why didn't you get care?

Do not read list. Enter all that apply based on the Participant's response.

- | | |
|---|---|
| <input type="checkbox"/> Health care too far away | <input type="checkbox"/> Not available - at time required (e.g. doctor on holidays, inconvenient hours) |
| <input type="checkbox"/> The wait for an appt. was too long | <input type="checkbox"/> Felt would be inadequate |
| <input type="checkbox"/> Cost | <input type="checkbox"/> Didn't get around to it / didn't bother |
| <input type="checkbox"/> Didn't know where to go | <input type="checkbox"/> Had no transportation |
| <input type="checkbox"/> Language barriers | <input type="checkbox"/> Personal or family responsibilities |
| <input type="checkbox"/> Dislikes/mistrusts doctors / afraid | <input type="checkbox"/> Decided not to seek care |
| <input type="checkbox"/> Doctor - didn't think it was necessary | <input type="checkbox"/> Didn't have a health card |
| <input type="checkbox"/> Didn't have a phone number | <input type="checkbox"/> Was too busy finding food, shelter, or other necessities |
| <input type="checkbox"/> Too busy for other reasons | <input type="checkbox"/> Couldn't get time off work |
| <input type="checkbox"/> Looking for work | <input type="checkbox"/> Couldn't get child care |
| <input type="checkbox"/> Was too depressed / not up for going | <input type="checkbox"/> Was refused services |
| <input type="checkbox"/> Don't have a family doctor | <input type="checkbox"/> Negative past experience, treated poorly or with disrespect by HC provider |
| <input type="checkbox"/> Addiction Issues | <input type="checkbox"/> Don't know |
| <input type="checkbox"/> Declined | <input type="checkbox"/> Other (specify): |

- 3.b Other (specify):
-



Appendix I

Scales

Table 1

Scales for the Satisfaction with Family Relations and Social Competence Variables

Satisfaction with Family Relations						
1	2	3	4	5	6	7
Terrible	Unhappy	Mostly dissatisfied	Mixed	Mostly satisfied	Pleased	Delighted
Social Competence						
1	2	3	4	5		
Very limited	Limited network	Moderately extensive network	Extensive network	Very extensive		

Note. The Social Competence variable has five items. Each item's responses on the scale vary depending on the nature of the question. For example, one item may ask how extensive one's social network is and the scale would appear as shown in Table D1. Another item may ask how frequently the participant initiates social contact, and the scale would appear as follows: 1) Very infrequently; 2) fairly infrequently; 3) occasionally; 4) fairly frequently; and, 5) very frequently.

Appendix J

Bar Charts for Descriptive Statistics

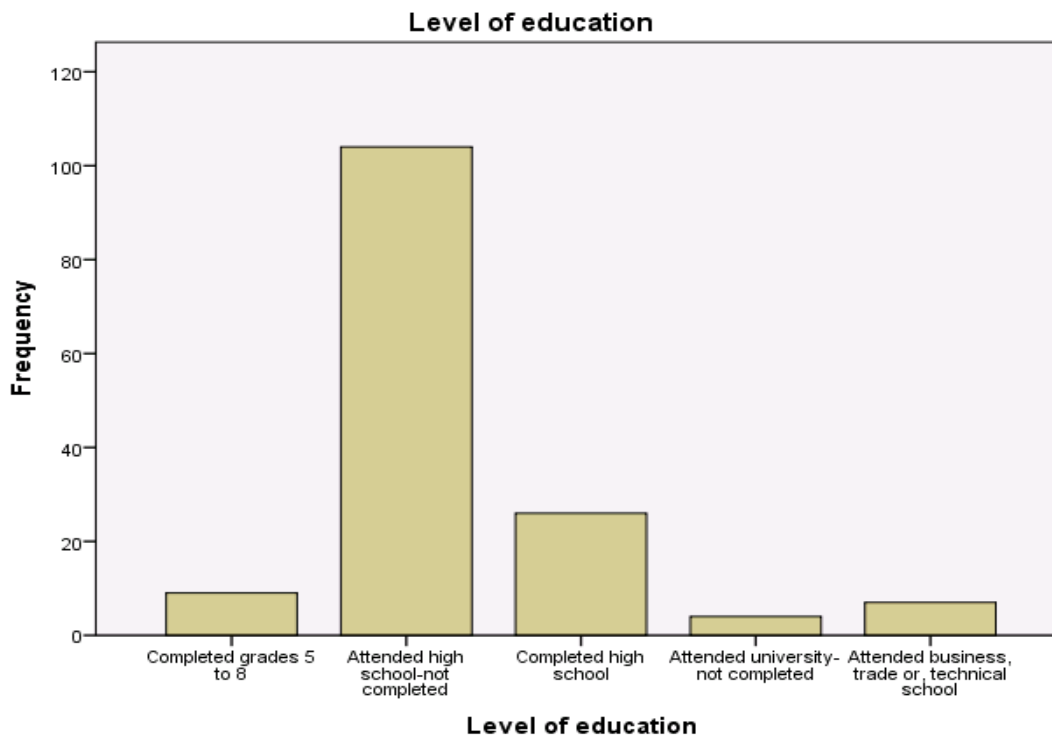


Figure J1. Level of education for participants 18 years and older

Table J1

Level of Education for Participants 18 Years and Older

Level of Education	Frequency	Percent
Attended university—not completed	4	2.7
Completed high school	26	17.3
Attended high school—not completed	104	69.3
Attended business, trade, technical school	7	4.7
Completed Gr. 5 to 8	9	6.0

Note. This table represents the education levels of participants who were 18 years and older, n=150. This sample was used to assess high school completion.

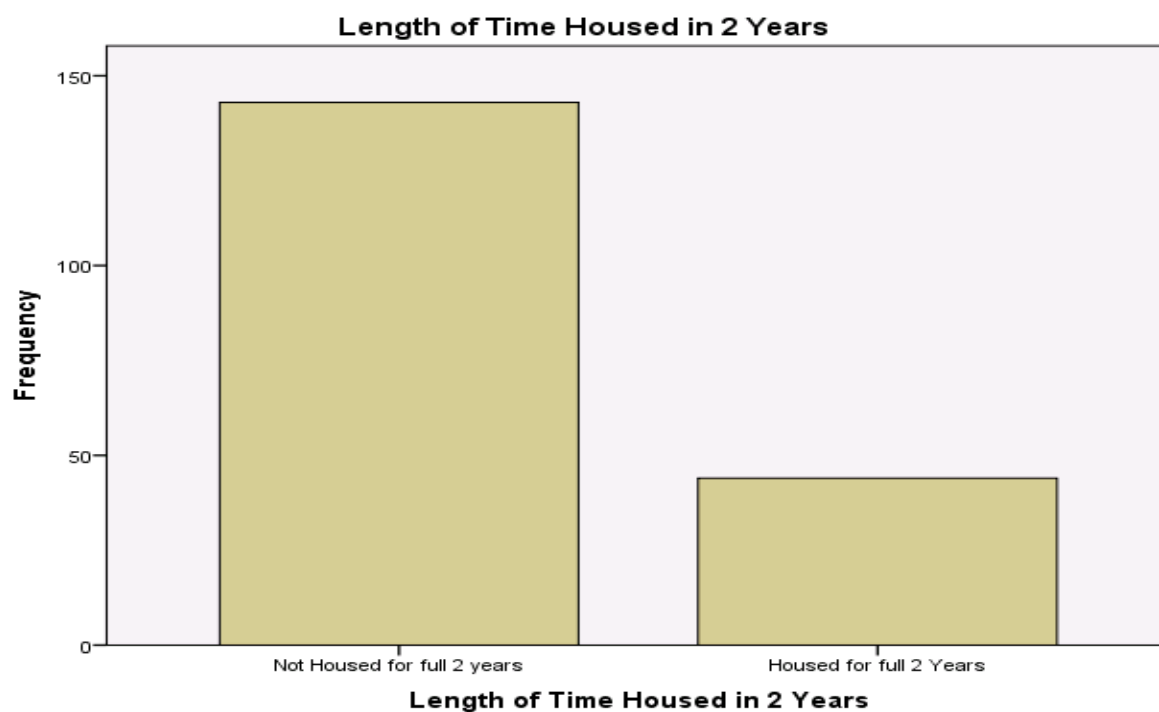


Figure J2. Number of participants housed for a full two years or not

Table J2

Descriptive Statistics for Housing Status in the Past Two Years

Housed for Two Years or Not		
Variable	Frequency	Percent
Housed for full 2 years	44	23.5
Not housed for full 2 years	143	76.5

Note. Number of participants housed for a full two years or not, prior to their first interview.

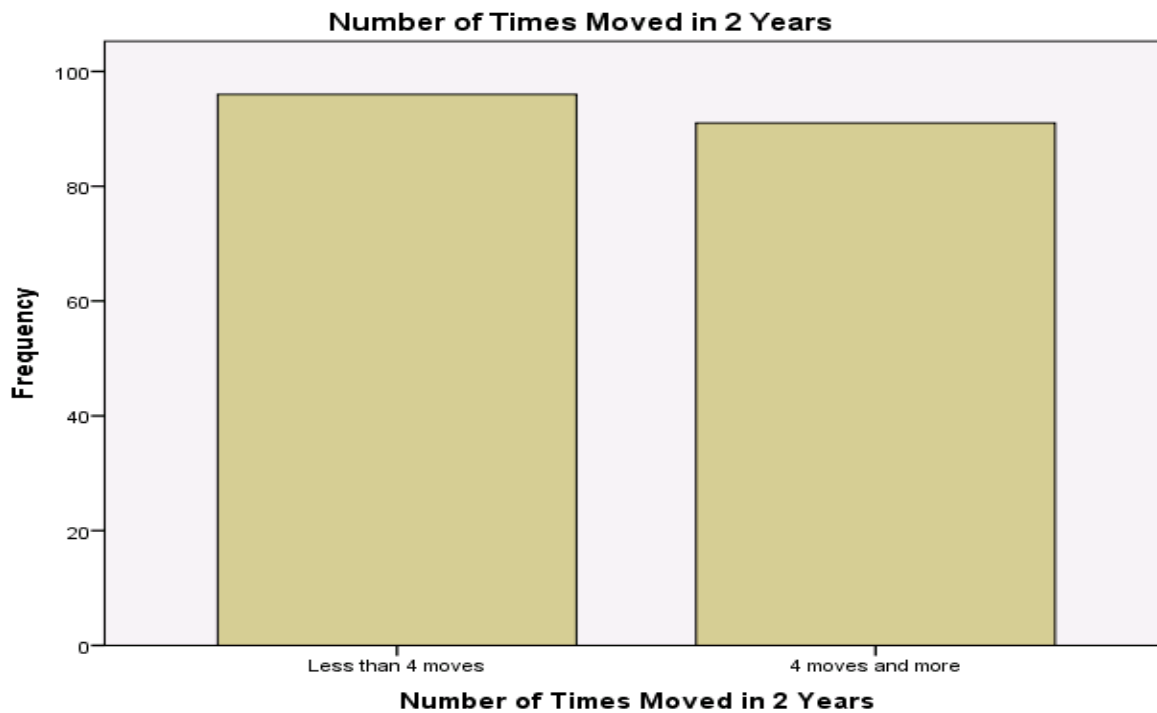


Figure J3. Number of participants who made above or below average number of moves in the past two years. Average number of moves=3.7 (SD=2.2) or 4 moves.

Table J3

Descriptive Statistics for Amount of Youth who Made Less Than Four or Four Moves and More

Variable	Number of Moves in Last Two Years	
	Frequency	Percent
Less than 4 moves	96	51.3
4 moves or more	91	48.7

Curriculum Vitae

Name: Michelle Syreeta Solomon

Post-secondary Education and Degrees: University of Western Ontario
London, Ontario, Canada
2005-2010 BScN

The University of Western Ontario
London, Ontario, Canada
2010-2013 MScN (Candidate)

Honours and Awards: Honour Society of Nursing Sigma Theta Tau
Iota Omicron Chapter Membership
2011

Clinical Nurse Specialist Student Award
RNAO, Mental Health Nursing Interest Group
2011

Related Work Experience: Executive Director
Connect for Mental Health Inc. (Peer Support Organization)
2011-Present

Registered Nurse-Acute Care Mental Health
London Health Sciences Centre
2010- Present

Teaching Assistant
The University of Western Ontario
2010-2011

Research Assistant
Lawson Health Research Institute, The University of Western Ontario
2008-2009