A Secondary Analysis of the Differences in Accessing Health and Social Services Between Ethnically Diverse Individuals and the Mainstream Society

HUY S. NGO

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Abstract

Background: Mental illness is now the third leading cause of disability and premature death in Canada. While access to the health and social services that promote mental health may help with recovery, current research has demonstrated that access issues are a major concern. Current literature suggest that ethnically diverse individuals living with mental illness may experience greater barriers when accessing health and social services due largely to cultural, ethnic, and language-related issues.

Purpose: This study compares health and social service access difficulty, perceived barriers, and service effectiveness between mainstream and ethnically diverse individuals living with mental illness in Ontario, Canada.

Method: A secondary analysis of cross-sectional data collected from 178 income-assisted men and women currently experiencing a mental illness was completed, to address the study purpose.

Results: A series of t-tests and analysis of variance revealed no significant difference between level of access difficulty, and perceived barriers between the ethnically diverse individuals and the mainstream society differentiated by race. However, an analysis using a variable that accounts for birth country as well as race demonstrated a significant difference in perceived service effectiveness between Caucasians born in Canada and ethnically diverse individuals born outside of Canada.

Discussion: It appears that regardless of ethnicity individuals living with mental illness experience comparable levels of access difficulty, barriers and service

effectiveness. The findings also suggest that service effectiveness may need to be improved for those from diverse backgrounds. Additional studies with larger sample sizes capturing participants from different socio-economic statuses are needed to strengthen this conclusion.

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Introduction

One in four people in the world suffer from a mental illness, accounting for 450 million people worldwide living with a mental illness at any given time (Donnelly et al., 2011; Smetanin et al., 2011; World Health Organization, 2001). Mental illness is now the third leading cause of disease burden in Canada directly affecting one in five Canadians (Mental Health Commission of Canada, 2011). It is estimated that by age 40 almost 50% of Canadians will have experienced a mental illness with significant implications for lost productivity, exclusion from normal Canadian living, and health and social service cost (Mental Health Commission of Canada, 2011).

An estimated cost of 50 billion dollars per year is attributed to mental illness in Canada (Mental Health Commission of Canada, 2011). It is projected that the cumulative cost of mental illness over the next 30 years will exceed 2.3 trillion dollars with the loss of productivity in work absence, presence (present but not at full working capacity) and turnover rate to increase from 6.3 billion dollars in 2011 to 16 billion dollars in 2041 (Mental Health Commission of Canada, 2011; Smetanin et al., 2011).

Mental health is defined as “a state of wellbeing in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (World Health Organization, 2007, par.1). On the other end of the spectrum, mental illnesses are characterized by alterations in thinking, mood, or behaviour associated with significant distress and impaired functioning.

Examples of specific mental illnesses include mood disorders such as major depression and bipolar disorder; schizophrenia; anxiety disorders; personality disorders, and substance dependency (Public Health Agency of Canada, 2013a, par. 1). Out of the different mental disorders, anxiety disorders are the most common affecting approximately 12% of the Canadian population followed by an estimated 9.2% of lifetime PTSD, depression at 9%, personality disorders at 4%, alcohol dependency at 2.6 %, and schizophrenia at 1% (Collin, 2006; Van Ameringen, Mancini, Patterson & Boyle, 2008; Canadian Mental Health Association, 2014).

Previous research has demonstrated that people's mental health is heavily influenced by what we have come to recognize as the social determinants of health, which according to the WHO (2014) is defined as "the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels"(par.1). These conditions include: income, education, social status, employment/working conditions, social support networks, social environments, physical environments, personal health practices, coping strategies, healthy child development, culture and gender (Public Health Agency of Canada, 2013b). Current literature also suggests that these factors do not influence mental health in isolation, but they intersect with devastating effects. Even though mental illness cuts across all ages, genders and cultures, a growing body of research (Chen, Kanzanjian & Wong, 2008; Lebrun, 2012) suggests that ethnically diverse individuals and groups may be especially vulnerable to experiencing mental

illness. The literature does not suggest some racial/ethnic predisposition to mental illness, but rather a greater likelihood that diverse groups are less likely to access the services and life opportunities to support good mental health (Chen, Kanzanjian & Wong, 2008; Lebrun, 2012).

Canada has the highest percentage of foreign-born citizens out of the major 8 industrial democratic countries, which include Canada, France, Germany, Italy, Japan, Russia, the United Kingdom and the United States. It is home to more than 200 ethnic groups with approximately 6.8 million Canadians born outside of the country recorded in 2011 (Statistics Canada, 2013). Some studies suggest that ethnically diverse groups have a triple vulnerability. First, ethnically diverse individuals, particularly new immigrants, are more likely to experience mental illness due to stress from immigration transition and adapting to new culture and environment (Cross & Singh, 2012;Reitmanova & Gustafson, 2009). Second, when it comes to accessing health care services there may be language and cultural/ethnic issues that influences barrier-free access to services and resources (Asanin & Wilson, 2008; Edge & Newbold, 2013; Lai & Chau, 2007). Third, a number of individual-level factors such as fluctuations in mood, cognitive changes, severity of symptoms experienced, and self-stigma may negatively affect their ability to perform tasks of daily living (Bilchik, 2004; Cross & Singh, 2012). However, these vulnerabilities have not been explicitly investigated in Canada.

With ample literature pointing to the disparities of underused mental health services and the projected cost to the Canadian economy (Mental Health

Commission of Canada, 2011; Bilchik, 2004; Isaacs et al., 2010; Smetanin et al., 2011), more research is required to delineate the impact of the challenges and barriers individuals living with mental illness encounter. Moreover, due to the highly diverse population in Canada, it is pertinent to investigate whether ethnically diverse individuals with mental illness have an added burden in accessing care contributing to the suboptimal health care delivery statistics in Canada (Mental Health Commission of Canada, 2011; Bilchik, 2004; Isaacs et al., 2010; Smetanin et al., 2011). Cross-cultural research that examine whether barriers and challenges to accessing care is a result of ethnicity alone or a by-product of other common challenges faced by those living with mental illness will assist health and social service agencies with enhancing current models of care and service delivery.

In order to promote “treatment prevalence”—the widespread reporting and seeking of treatment for disease (Bilchik, 2004)—it is imperative for nurses as front-line service providers and advocates of all patients, to gain a better understanding of how to best deliver health care and social services. Nurses play a pivotal role in providing care and bridging the gaps in the health and social service system often by acting as the point of access to care in both the community and in hospitals. By learning about the facilitators and barriers experienced by ethnically diverse individuals living with mental illness with accessing health and social services, nurses can then inform culturally appropriate practice, advocacy, research, and education to promote justice and equitable access for all Canadians.

Statement of Purpose

The purpose of this study is to explore the challenges and barriers ethnically diverse groups face as they attempt to access the services and resources needed to support and promote mental health. Specifically, a secondary analysis of pre-existing quantitative data will be used to explore and compare experiences with service access among mentally ill individuals belonging to ethnically diverse and mainstream populations.

The Merriam Webster Dictionary (2014) defines “Ethnic” as “being a member of an ethnic group, especially of a group that is a minority within a larger society” and “associated with or belonging to a particular race or group of people who have a culture that is different from the main culture of the country” (par.1). Using the above definitions, “ethnically diverse” individuals/groups will be used in this study to encompass people from all racial and cultural backgrounds who do not belong to the majority race. “Mainstream society” will be used to refer to Canadian residents forming the majority race and culture in Canada – Caucasians of European descent.

Literature Review

Mental Illness & Service Access

The Oxford dictionary (2002) defines “access” as “the means or opportunity to approach or enter a place” and “the right or opportunity to use something or see someone”. Current literature suggests that a number of factors including stigma, poor health literacy, marginalization, racism, and culture, impact access to mental health services and resources (Chen, Kazanjian & Wong, 2008;

Donnelly et al., 2011; Nadeau, Saul & Gany, 2011; Reitmanova & Gustafson, 2009; Venters, Adekugbe, Massaquoi, Nadeau, Saul & Gany, 2011). Not all factors influence resource access equally for every individual living with a mental illness. While most individuals living with mental illness are likely to experience discrimination, stress, poor health literacy, lack of social support and unemployment, ethnically diverse individuals may be more drastically affected by stigma, racism and social exclusion related to cultural differences.

In order to better understand how discrimination for both mental illness and ethnically diverse groups affect service access for care consumers, we must first examine the meaning and entities of stigma, health literacy, immigration and minority status.

Stigma.

Stigma is defined by the Oxford English dictionary as “a mark of disgrace associated with a particular circumstance, quality or person” (Pearsall, 2002). From this definition, it appears that even though stigma can be readily applied to any subject, it is due to the deep-rooted values and beliefs supporting stigma and its existence in many dimensions that make it very difficult to reverse in the case of ethnically diverse individuals with mental illness. Isaac et al. (2010) explain that stigma can be divided into two categories: “public” and “self-stigma” (p. 78) ratifying the “shame factor” that plays a role in the avoidance people make in getting treatment for mental illness to avert discrimination often accorded by the public. According to these findings, the underutilization of services comes from

the attitudes and perspectives of both care consumers and service providers alike.

Not only is stigma a social construct that acts as a barrier for individuals living with mental illness to receive care, it is also a barrier that is a predecessor to other challenges for this group to seek help. As a result of experiencing stigma, which is often associated with the lack of social and familial support, individuals living with mental illness then have fewer supports to help them with finding and comprehending health information in order to access health services (Bilchik, 2004). For ethnically diverse individuals who have different cultural beliefs and practices, going out to seek health care information and services independently may not come naturally or be supported by their cultural community. Additionally, Canadians from many ethnically diverse groups learn English as a second language, which affects their health literacy.

Charlot & Beasley (2005) identify stigma associated with mental illness to be a major barrier to accessing care. Some of this social stigma can be attributed to the media's portrayal of mental illness and its progressive links to violence (Bilchik, 2004) even though the Mental Health Commission of Canada (2012) concluded that mental health patients are more often the victims of violence than they are the perpetrators. Other studies show that stigma against the mentally ill not only intensifies the negative attitudes of health care providers toward these patients, but it increases the likeliness of the exploitation of this group (Pescosolido, Medina, Martin & Long, 2013; Charlot & Beasley, 2005; Xenitidis et al., 2004).

Further to the unfair treatment from service providers to this group, Chadwick, et al. (2012, p.212) suggest that social discrimination to this group has partly contributed to the inequitable allocation of resources to mental health as well as an “Overshadowing”—the term used to describe healthcare professionals’ negligence to patients’ physical symptoms due to a primary diagnosis of mental illness. This again suggests that health care providers emanate the belief through their inaction that mental health patients’ problems are “all in their heads”. This invalidates their physical sufferings as well as aggravates the difficult process to receive care, strengthening the feelings of isolation and ostracism that often permeate the minds of individuals living with mental illness.

Health literacy.

Health literacy is defined as the process through which people seek, read, understand health information and act upon it accordingly to maintain or obtain good health (Eggertson, 2011). To fully understand the health literacy of people with mental illness, one must first consider the “health literacy” of the general public. According to Eggertson (2011), 60% of Canadians have poor health literacy with the percentage increasing to 88% for those over the age of 65. If an overwhelming majority of Canadians cannot make sense of health information received and respond to it appropriately to maintain or obtain good health, it is perhaps even more challenging for people who have disorders that may be affected by poor communication, the ability to describe their symptoms, and health histories, provide consent and navigate through the complicated health and social service systems.

The same factors that affect the poor health literacy of individuals living with mental illness also affect their employment rate. Research shows that it is more difficult for individuals living with mental illness to find and hold jobs, propagating the impoverishment that often accompanies mental illness (Chadwick et al., 2012; Hadland, Kerr, Li, Montaner & Wood, 2009; Wilton, 2004). Someone living with mental illness is more than 2 times more likely than someone not living with mental illness, to be living in poverty (Wilton, 2004). The loss of jobs then heralds a slew of circumstances that moreover intensifies the disadvantages faced by these individuals, such as low self-esteem, poor mental and physical health, limited political participation, limited education, unstable housing, attenuated social networks, and unhealthy coping strategies (Wilton, 2004).

Immigrant and minority status.

Additionally, it is well documented that ethnically diverse individuals who are new immigrants face many challenges and barriers in accessing health care in developed countries. Immigrants make up a high percentage of the Canadian population and are most often considered “ethnically diverse” since they are foreign-born and bring with them a culture that differs from that of the dominant culture. International studies have identified some common challenges and barriers ethnically diverse immigrants face when accessing health care. Venters, Adekugbe, Massaquoi, Nadeau, Saul and Gany (2011) posit low referral rate to mental health services among African immigrants to be the barrier in accessing health services while Chen et. al. (2008) found that the length of residency,

language proficiency and place of origin of Chinese immigrants were associated with low service utilization. Furthermore, Garcia, Gilchrist, Vazquez, Leite and Raymond (2011) identified beliefs and awareness of mental health resources as the main challenges to Latino immigrants' access to care. Matthews et al. (2006) makes the following conclusion about access to service:

> Ethnic minority group members may experience a greater burden from unmet mental health needs compared to European Americans due to the combined influences of reduced access to care, lower quality of services received, and reduced voluntary utilization of mental health services (p. 254).

Even though many of these factors also affect the utilization and accessibility of services by individuals with mental illness from the mainstream society, they can result from very different reasons. For example, an individual with mental illness may be underutilizing mental health services due to intellectual disability while an ethnically diverse individual's reason for not seeking care may be owed to a lack of trust in mainstream services (Reitmanova & Gustafson, 2009) and the entrenched values to use alternative treatments, traditional methods of healing and natural therapies (Isaac et al., 2010; Matthews et al., 2006; Cross & Singh, 2012). When comparing individuals living with mental illness from the mainstream society to ethnically diverse individuals with accessing health services, there appears to be some parallels in the challenges and barriers met by both groups albeit from different reasons. It is unclear from these differences whether ethnically diverse individuals living with mental illness have more difficulty with

accessing health and social service and to what extent compared to those from the mainstream society.

Literature also suggests that ethnically diverse individuals receive different and unfair treatment by general practitioners when presenting the same problems. For example, Cross and Singh (2012) found that visible minorities have an alarmingly high rate of misdiagnosis when it comes to mental health. This can be explained by findings by Lehit, Hammarstrom and Mattsson (2009) that family physicians have great difficulty and go through many struggles in making the correct diagnosis for minorities experiencing mental illness. They often allow uncertainty coupled with feelings of stress to expedite improvised and inappropriate actions affecting the final outcomes of treatment (Lehti et al., 2009).

Whether ethnic minorities with mental illness are experiencing stigma due to mental illness or due to visible minority status, or both, findings by Eack and Newill (2012) and Cheng, Russell, Bailes and Block (2011) point out that when diagnosed with the same mental health disorders, ethnically diverse individuals were more likely than individuals from the mainstream society to be discharged from public hospitals. According to these findings, it appears that ethnically diverse individuals with mental illness not only have additional challenges and barriers to accessing care, but are faced with discrimination and hardships in many different ways.

Gap in Literature

Research on the accessibility of Canadians with culturally diverse backgrounds who are also suffering from mental illness is almost non-existent.

Reitmanova and Gustafson (2009) found numerous barriers encountered by this population, but only conceptualized recommendations for groups not identified as “ethnoculturally diverse” Other Canadian studies either focused on minority status or mental health status, but rarely both. Some studies focused on individuals who are intellectually disabled (Lunksy et al., 2008), some focused on the “street youth” population (Hadland et al., 2009) and some on specific cultural groups, such as, aboriginal mothers accessing heath care during pregnancy (Van Herk, Smith & Andrew [2], 2011) and women from China and Sudan with mental health problems (Donnelly et al., 2011). With a great deal of literature supporting difficulties in accessing health services for both ethnically diverse and mentally ill populations, it is time to consider the challenges met by possibly, the most vulnerable group—the ethnically diverse individuals who are suffering from mental illness.

Research Question

This study aims to address three research questions:

1. How does health and social service access compare among ethnically diverse and mainstream individuals currently experiencing a mental illness?
2. How do the types and quantities of barriers encountered while attempting to access health and social services compare among ethnically diverse and mainstream individuals currently experiencing a mental illness?
3. How does health and social service effectiveness compare among ethnically diverse and mainstream individuals currently experiencing a mental illness?

Theoretical Framework

This study will be guided by an intersectionality framework, a branch of the Critical Social Theory. Polit and Beck (2014) define Critical Theory as “an approach to viewing the world that involves a critique of society, with the goal of envisioning new possibilities and effecting social change” (p.751). It was first developed in the 1930s by Frankfurt school scholars in Germany who adopted ideas from the critical methods of Karl Marx and Sigmund Freud (Crossman, 2014). The critical social theory is a school of thought that focuses on human condition improvement and aims to overcome obstacles of ideology by challenging the status quo and finding alternatives to current social realities in order to achieve human emancipation (Ngwenyama, 1991). There are 5 assumptions to which the critical social theory in research and practice was established. They are as follows:

1. The social world is created by its people and therefore, can be changed
2. All scientific knowledge in the social world is value-laden because they are socially constructed.
3. It is impossible to separate reason from critique.
4. Theory and practice exist in concordance since the critical social theory aims to reconcile knowledge for human improvement.
5. Critical social theory must be reflexive in that it accounts for the validity of knowledge and the changes it produces opening up to critical reflection as well as public debate (Ngwenyama, 1991).

With 3 criteria that must be met simultaneously, as cited by Crossman (2014), the critical social theory is guided by explanation, practicality and normalization. Explanation refers to the identification of the existing problem, which is the growing cost of unmet mental health care needs of individuals living with mental illness due to difficulty in accessing health and social services. The practicality refers to the agents of change, which include the attitudes, values and the choices made by care consumers, service providers and policy-makers alike. Lastly, normalization refers to the criticism of norms as well as the development of achievable, realistic goals to drive social change which is directed at the knowledge gaps in understanding the experiences of individuals living with mental illness and then using this knowledge to instigate social transformation through critical reflection and policy change.

One of the objectives of this study is to promote social justice and equal access to resources for all Canadians by mitigating the challenges ethnically diverse groups living with mental illness confront. As such, it is important to explore the circumstances that require action in order to bring about change. Critical Social Theory appropriately connects theory with the reality of the biases and oppression the mentally ill face in Canadian society.

The fact that mental disease is given less attention in biomedical research than other diseases with less disease burden is a testament of injustice (Chadwick et al., 2012; Pescosolido et al., 2013). According to Rogers and Kelly (2011), the four ethical tenets of health research include: Autonomy, beneficence, non-maleficence and justice, with the latter given the least consideration. In order

for nurses to fulfill their myriad roles in practice, research and political science, they must relentlessly pursue better ways in providing care to the people who have the least access, but ironically require it the most, speaking to the principle of justice (Van Herk, Smith & Andrew, 2011a). Through this perspective, the examination and questioning of widely accepted norms and behaviours will glean a new appreciation of the complexities where more than one factor intersect to reinforce the difficulties ethnically diverse individuals with mental illness are affronted with.

Intersectionality was first developed by Kimberle Crenshaw in 1989 when she sought to construe the unique phenomenon experienced by Black women who were discriminated by both race and gender simultaneously. She aimed to prove the ineffectiveness of the “single-axis analysis” in treating race and gender separately (Crenshaw, 1989, p.139). The author promulgates that exclusive treatment of race and gender eliminates or denies the existence of the specific group with multiple identities altogether, which suggests, that by comparing mental illness and ethnic minorities independently, it is impossible to know the true multiple dimensions that affect the way this group of individuals access care. Bowleg (2012) explains that by ignoring the intersectionality of different categories, it is assumed in theory that they cannot co-exist. For example, if one seeks to understand the communication challenges of new immigrants and people with mental health problems, it is assumed that new immigrants do not have mental health problems and people with mental health problems are not new immigrants.

Not only is it important to look for new possibilities to improve current processes, but it is equally important to ensure that this change is continuous. Therefore, intersectionality must move beyond race and gender in other inquiries to guide the evaluation of phenomena characterized by intersection of multiple axes; otherwise it will cease to exist when race and gender issues are resolved. Koehn, Neysmith, Kobayashi & Khamisa (2013) criticize the failure of other theoretical perspectives to capture Canadian's diverse and complex realities to reform inequities in health care. According to Hankivsky and Christoffersen (2008), despite past efforts to explicate the inequalities in Canadian health care, little progress was made towards addressing these issues. This resulted from a lack of comprehension of where the cause is stemming from and not using theoretical perspective that is fitting for gleaning knowledge of multidimensional intricacies. For these reasons, it is unfitting to explore the experiences of ethnically diverse individuals with mental illness and to compare findings with mentally ill individuals from the mainstream society using any other theoretical approach than that of intersectionality.

Applying intersectionality to the study of ethnically diverse individuals living with mental illness requires a two-step approach (Ontario Human Rights Commission, 2013). First, a shift in perspective from a single-axis analysis must be made to an analysis that comprehensively includes the multiple identities that are connected to multiple grounds of discrimination. For example, by incorporating the multiple identities of individuals living with mental illness in a preliminary study, we can then understand how these different factors interact

and intersect with one another to create the unique experiences of this population when accessing health and social services. The second step requires one to examine the circumstances and facts surrounding the stereotypes also referred to as “contextual analysis” (Ontario Human Right Commission, 2013). In this case, the beliefs and attitudes of service providers, the history of treatment to this group by society and the social, political and economical situation acting as the determinants of health to ethnically diverse individuals and groups living with mental illness are central components of the contextual analysis. This study aims to compare levels of access difficulty, perceived barriers, and service effectiveness between mainstream and ethnically diverse individuals living with mental illness in Ontario, Canada.

Method

Design

To address the research question, a secondary analysis of cross-sectional data collected from a sample of 178 income-assisted men and women currently experiencing a mental illness will be analyzed. The data comes from a larger study that examined how neighbourhoods of residence influenced access to health and social resources and the mental health of low-income men and women living in Ontario, Canada.

Sample and Sample Selection

In order to conduct an analysis that addresses research question 1, 2, and 3, participants who met the following eligibility criteria were included in this analysis: 1) participants who were 18 years of age of older; and 2) participants

who reported symptom levels consistent with a diagnosis of mild to extremely severe depression, post-traumatic stress disorder (PTSD), or alcohol abuse. As this was a secondary analysis, data on these three mental health conditions were previously collected and readily available to be analyzed. With significant prevalence relative to all other mental health disorders, depression (9%), PTSD (9.2%) and alcohol abuse (2.6%) (Collin, 2006; Van Ameringen, Mancini, Patterson & Boyle, 2008; Canadian Mental Health Association, 2014) may be especially pertinent to studying different ethnic groups as it directly relates to different coping strategies and cultural transitions influenced by the differences in culture, practice and beliefs.

Study procedure

The procedures used for the larger study are as follows. After obtaining ethics approval from the Research Ethics Boards at the study site, six neighbourhoods that varied across 23 social and economic indicators with sufficient numbers of social assistance recipients were selected. Next, sampling blocks were created accounting for sex (male/female) and family type (single unattached individuals, couples with and without children and single parents). 4000 potential participants living in those six neighbourhoods were then randomly selected. The study invitations written in English, which included the study letter of information, were mailed to homes of those who were selected with reminder notices also sent at 4 and 8 weeks after the initial invitation. Due to current privacy policies, the researcher did not have access to the contact information of potential participants, so the local employment and social service department

mailed the letter of invitation. After reviewing the invitation letters, interested participants contacted the researcher by telephone to indicate their interest to participate in the study.

409 individuals responded to the study invitation (13% response rate). Nine refused participation after having received more information about the study. 400 registered to participate and agreed to complete the survey in English via telephone interview (n=136) or web survey (n=191). A copy of the ethics approval certificate from the Office of Research Ethics (ORE) at York University for this study can be found in appendix A.

Data collection.

Participants were given a web or telephone option. Those who chose the online option were emailed a survey URL followed by up to 6 email reminders for those who did not complete the survey in 5 days. A trained interviewer completed all telephone interviews in English at a mutually agreed upon time and date. Items assessed on the larger survey included stress (financial strain, discrimination, interpersonal stress); trauma exposure (interpersonal violence and non-violent trauma); neighbourhood resource access; personal resources (spirituality, empowerment, psychological well-being, emotional self-awareness); social resources (social capital and social support); and mental health status (depression, PTSD, and alcohol abuse). The average time it took to complete each survey was 45 minutes. The survey questions used can be viewed in appendix B under Registration Form. Because all components of the data collection process were conducted in English and required participants to have

the level of language proficiency sufficient to respond to telephone or web surveys, the sample may not be representative of individuals experiencing probable mental illness from various ethnicities.

Measures

With permission from the principal investigator of the larger study, data relevant to the following variables was used in this analysis: Demographic information including age, ethnicity, country of birth, immigration status, mental illness including the presence of depression, PTSD, or lifetime alcohol dependence, and community resource access. All names and identifiers were replaced by codes to protect the privacy of study participants. The registration form capturing the demographic information of participants can also be found in appendix B.

Depression

From the Depression Anxiety Stress Scale (DASS: Hudson & McIntosh, 1981), a 7-item depression sub-scale was used to detect the presence of depression among study participants. These items represent stress and depression (i.e. “I found it hard to wind down” and “I tended to over-react to situations”). Participants were asked to review and identify on a 4-point likert scale (0=Did not apply to me at all to 3=Applied to me very much, or most of the time) how relevant each statement was to them. The 7 items were then summed up for the subscale scores with higher scores indicating more depressive symptoms. The overall Cronbach’s alpha for internal consistency is 0.82. Because this sub-scale is a shortened version of the DASS-42, all scores were

multiplied by 2. Participants with a final score of 0-9 were in the normal range or considered to have no depression; 10-13 were considered to have mild depression; 14-20 indicated moderate depression; 21-27 indicated severe depression and finally for those with a final score of 28+ were considered to have extremely severe depression. These scores were used in the study to identify various levels of probable depression.

Post-Traumatic Stress Symptoms

The Traumatic Stress Scale (TSS: Killian, Samuels-Dennis, Paulson, Maddoux, Fraser, 2012) was used to assess PTSD in this study. The TSS possesses 23 items that measure how frequently symptoms of post-traumatic stress were experienced by participants in the last month with response options ranging from 0=Not at all to 3=Often. A subscale to capture the re-experiencing of post-traumatic stress comprising of 5 items such as recurrent and intrusive thoughts and recollections of a traumatic event had a Cronbach's alpha coefficient for internal consistency of .90. A 5-item subscale for avoidance measuring participants' efforts to avoid thoughts, feelings, and cues associated with trauma also had a Cronbach's alpha coefficient of .90. The 6-item hyperarousal subscale measures increased arousal, such as hyper-vigilance, exaggerated startle response, and agitation, has a Cronbach's alpha of .85. The 7-item numbing subscale which measures restricted affect, interpersonal withdrawal, and sense of foreshortened future following a traumatic event had a Cronbach's alpha coefficient of .92. Participants who reported at least 1 symptom from each symptom cluster plus a score of greater than 37 were categorized as

experiencing PTSD. This criteria was used in the analysis to differentiate those who are possibly experiencing PTSD versus those who are not likely to be experiencing PTSD.

Alcohol Dependence

The CAGE questionnaire (Bush, Shaw, Cleary, Deblanco, & Aronson, 1987) which is a standardized assessment tool used to quickly screen an individual's likelihood of alcohol dependence was used in this study to assess the possible dependence of alcohol dependence. It is specifically geared towards investigating the likelihood of experiencing alcohol dependence in one's lifetime rather than just the current alcohol dependence level of an individual. It is made up of the following 4 questions: 1) C – have you ever felt you should cut down on your drinking? 2) A – have people been so annoyed by you to criticize your drinking? 3) G – have you ever felt bad or guilty about your drinking? 4) E – have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (eye opener)? In this study, a cut-off score of 2 was used to identify a lifetime of possible dependence on alcohol.

Community Resource Access Difficulty

Community resource access difficulty was assessed using the resource accessibility subscale of a modified version of the Effectiveness in Obtaining Resources Scale (EORS: Bybee & Sullivan, 2002). This scale assesses ease with accessing 20 community supports/services (i.e. medical and psychiatric specialist). Participants were asked to review 20 services/supports currently available in the community and identify (yes/no) if they had accessed or

attempted to access the support/service in the past 3 months. For each service they accessed or attempted to access, they identified using a four-point likert scale how difficult it was to access the needed service/supports (0=not at all difficult to 3=very difficult). Average access difficulty scores were created by first summing the access difficulty scores and then dividing by the total number of services accessed during the 3 months prior to the completion of the survey.

Barriers Encountered

Participants also reviewed 15 resource access barriers that people are likely to encounter while attempting to access community services and resources. They identified using a 4-point likert scale how much each barrier applied to them (1 = Did not apply to me at all; 2 = Applied to me to some degree, or some of the time; 3 = Applied to me to a considerable degree, or a good part of time, and 4 = Applied to me very much, or most of the time). This analysis makes use of both the average access barrier scores as well as a recoded value where 0 = no encountered barrier and 1 to 4 = some level of encountered barrier.

Service Effectiveness

Service effectiveness was assessed also using the resource accessibility subscale of a modified version of the Effectiveness in Obtaining Resources Scale (EORS: Bybee & Sullivan, 2002). This scale assesses ease with accessing 20 community supports/services (i.e. medical and psychiatric specialist). Participants were also asked upon accessing the 20 services/supports, how effective the care or service provided was on a 5-point likert scale (1 = very effective; 2 =

Somewhat effective; 3 = Somewhat ineffective; 4 = Very ineffective; and 5 = Never accessed this service).

Ethnic Diversity and Mainstream

Due to the multiple intersecting factors that account for “ethnic diversity”, two different groupings were created in this study to reflect factors that directly influence ethnic diversity such as race alone and race in conjunction with birth country. The first grouping created for the t-test for independent samples representing ethnically diverse individuals living with mental illness and individuals from the Mainstream society living with mental illness used race as the only differentiating factor. Group 1 represented individuals from the mainstream society (individuals who self-identified as Caucasians of European descent) and Group 2 represented individuals from ethnically diverse backgrounds (individuals who self-identified as Native Canadian/Aboriginal, Black (of African descent), Black (Hispanic Latin American), Asian, South Asian, Pacific Islander/Filipino, Hispanic (Latin American), Hispanic (Mexican), Arab/Middle Eastern, South Asian (Carribean), Multi-Racial and other. To ensure that both groups met the study criteria, only participants identified as experiencing depression or PTSD or lifetime alcohol dependence were included. There are 38 participants from the Mainstream society and 140 participants who are ethnically diverse.

Intersectionality

A second grouping for ethnicity was created to reflect some of the intersecting factors that made up the study participants’ ethnic identity. Since the

definition of ethnic—“associated with or belonging to a particular race or group of people who have a culture that is different from the main culture of a country” (Merriam Webster, 2014, par.1) is contingent upon and affected by the length of residency, a further analysis using birth country in conjunction with race was developed. By combining the intersecting factors of race with birth country, the new groups were better able to reflect the level of cultural assimilation to the mainstream society and thus, taking into account the meaning of “ethnically diverse” in the groupings. Subjects were first divided into 4 groups of participants (Group 1: Caucasians born in Canada; Group 2: Caucasians born outside of Canada; Group 3: ethnically diverse individuals born in Canada, and finally Group 4: ethnically diverse individuals born outside of Canada). There is an insignificant number representing Group 2 with only 3 participants falling under that category and was thus, not included in the analysis. By using Levene’s test for homogeneity of variances to test whether the variance in scores is the same for each of the 3 groups, an alpha of greater than .05 would allow us to make the assumption that the homogeneity of variance has not been violated. In our analysis, the alpha is .73. As this is greater than .05, we have not violated the homogeneity of variance assumption.

Data analysis.

SPSS version 20 (IBM Corp., 2011) was used to conduct all preliminary and actual analyses to answer the research questions. T-tests for independent samples were used to test the difference in access difficulty, barriers encountered and perceived service effectiveness between ethnically diverse

individuals and the mainstream society living with mental illness. Assumptions were checked for the t-test using Levene's test for equality of variances to test whether the variance in scores is the same for the two groups. With an alpha of greater than .05, we can interpret the results by assuming equal variances.

One-way ANOVAs were used to assess the differences in access difficulty, barriers encountered and perceived service effectiveness using 3 groups. As mentioned previously, groups were created to reflect the intersecting identities of ethnicity using race in conjunction with birth country to form Caucasians born in Canada, Caucasians born outside of Canada, ethnically diverse individuals born in Canada and ethnically diverse individuals born outside of Canada. Due to the low number of participants falling under Caucasians born outside of Canada, this group was omitted in the analysis.

A two-way, between groups ANOVA was used to further assess the individual and joint effects of the independent variables of race and birth country on our dependent variable of perceived service effectiveness. In our previous analysis using the one-way ANOVA, we could assess if there was a significant difference between Group 1 (Caucasians born in Canada), Group 3 (ethnically diverse individuals born in Canada) and Group 4 (ethnically diverse individuals born outside of Canada) in perceived service effectiveness. What we could not know was whether race or birth country alone has a "main effect" meaning that one of these variables has an effect without accounting for the effect of the other independent variable or whether there is a "interaction effect" meaning that the changes in one independent variable depends on the other independent variable

(Pallant, 2007). It is most fitting to use a two-way ANOVA for 2 or more independent variables that have categorical data sets with 1 dependent variable that has a continuous data set with no control variables.

Results

Sample Characteristics

The demographic characteristics for the total sample and by groupings are presented in Table 1 (see Appendix C). Group 1(Caucasians born in Canada) had a sample size of 35 (9 males and 26 females), group 3 (ethnically diverse born in Canada) had a sample size of 41 (12 males and 21 females), and group 4(ethnically diverse born outside of Canada) had a sample size of 99 (38 males and 61 females) for a total of 175 participants. The mean age of the total sample was 31.9 years. At the time the survey was completed 76 participants indicated they were born in Canada while 99 participants indicated they were born outside of Canada. For those who indicated they were born outside of Canada, we also assessed their immigration status when they first settled in Canada. Of the group born outside Canada 45, 40, and 15 indicated they first entered Canada as landed immigrants, refugees, and temporary visitors respectively.

To examine whether there were significant differences in the demographic characteristics for the different ethnicity groups, a one-way ANOVA was conducted for age and a series chi-square analyses were conducted for categorical data such as education, birth country, sex, marital status and immigration status. Results for the one-way analysis of variance showed a significant difference in age for the three ethnicity groups [$F(2,172) = 6.5$, $p = .002$]. There were significant differences in marital status x^2 (4, N =175) = 10.86, $p = .028$, birth country x^2 (2, N = 175)= 175.0, $p = .000$ and a significant

difference in immigration status at the time of arrival to Canada between the groups x^2 (6, N = 170) = 159.84, p = .000. There was no difference across other demographic characteristics including sex x^2 (2, N = 175) = .2.33, p = .31, education x^2 (10, N = 175) = 8.51, p = .58 between the groups.

Mental Health Characteristics of the Sample

The mental health characteristics for the total sample and by groupings are presented in Table 2 (see Appendix C). Within the total sample of 175 participants, 110 reported symptoms of probable PTSD (17 Caucasians born in Canada, 26 ethnically diverse born in Canada and 67 ethnically diverse born outside of Canada). 57 participants reported symptoms of probable lifetime alcohol abuse (13 Caucasians born in Canada, 12 ethnically diverse born in Canada and 32 ethnically diverse born outside of Canada). Of the 175 participants in the total sample, 163 reported symptoms consistent with probable depression. 9 reported symptoms consistent with probable mild depression (1 Caucasians born in Canada, 2 ethnically diverse born in Canada and 6 ethnically diverse born outside of Canada), 86 reported symptoms consistent with probable moderate depression (21 Caucasians born in Canada, 19 ethnically diverse born in Canada and 46 ethnically diverse born outside of Canad), 25 reported symptoms consistent with probable severe depression (1 Caucasian born in Canada, 7 ethnically diverse born in Canada and 17 ethnically diverse born outside of Canada) and 43 reported symptoms consistent with probable extremely severe depression (8 Caucasians born in Canada, 11 ethnically diverse born in Canada and 24 ethnically diverse born outside of Canada). There was no significant difference in PTSD scores x^2 (2, N =175) = 4.05, p = .132), alcohol abuse x^2 (2, N =175) = .539, p = .764) or depression x^2 (8, N = 175) = 7.10, p = .526 between the 3 different ethnic groups.

When asked about a formal diagnosis by a physician or mental health specialist, 62% had been formally diagnosed with PTSD and 93% had been formally diagnosed with depression at some point in their lives.

Question 1: How does health and social service access compare among ethnically diverse and mainstream individuals experiencing a probable mental illness?

To assess for differences in mean access difficulty scores, a t-test for independent samples was completed. Mean access difficulty scores was created by first summing all access difficulty items responded among the 20 categories which is derived from a modified version of the Effectiveness in Obtaining Resources Scale (EORS: Bybee & Sullivan, 2002). Next the summed score was divided by the total number of services participants accessed or attempted to access in the past twelve months prior to the survey. This approach accounts for those items that were not responded to by each participant. The Levene's test for equality of variance was not significant [F = .170, p = 0.681]. Using the test statistic for equal variance, we found no significant difference in mean access difficulty scores $t(167) = .148$, $p = .882$ across the mainstream [$\bar{x}$ = 2.27, sd = .71] and ethnically diverse groups [$\bar{x}$ = 2.25, sd = .69].

A one-way ANOVA was conducted with the three groups (Caucasians born in Canada, ethnically diverse born in Canada and ethnically diverse born outside of Canada) to compare more than 2 groups to explore the impact of ethnicity on access difficulty. There was no significant difference in access difficulty scores for the three groups [$F(2, 163) = .012$, $p = .99$].

With ratings for access difficulty ranging from 1(not at all difficulty) to 4 (very difficulty), the scores for average access difficulty for Group 1 (Caucasians born in Canada) fell between 2.02 (lower bound) and 2.53 (upper bound) with $\bar{x}$ = 2.27; scores for Group 3 (ethnically diverse born in Canada) fell between 2.01 (lower bound) and 2.49 (upper bound) with $\bar{x}$ = 2.25, and the scores for Group 4 (ethnically diverse born outside of Canada) fell between 2.11 (lower bound) and 2.40 (upper bound) with $\bar{x}$ = 2.25.

Table 3 (see Appendix C) provides an overview of the access difficulty ratings for each service. For each service accessed in the 12 months prior to the survey, participants indicated how difficult it was to access the services using responses of 1 = not at all difficult, 2 = not very difficult, 3 = somewhat difficult, 4 = very difficult. In Table 3, access difficulty is recoded. A score of 0 was used to indicate no difficulty while a score of 2, 3, or 4 was recoded as 1 to indicate some experienced difficulty.

The services where the greatest number of participants experienced some level of access difficulty included: drug/alcohol treatment program at 100%; sexual assault/rape crisis services at 100% (with only 1 participant); childcare services at 94% and emergency housing/house services at 89%. On the contrary, the services where the smallest number of participants experienced some level of access difficulty included: child protection services rated at 38.5%; services for victims of violent crimes (violent crime services) at 54% and access to family doctor or general practitioner at 57%.

Question 2: How do the types and quantities of barriers encountered while attempting to access health and social services compare among ethnically diverse and mainstream individuals experiencing a probable mental illness?

Table 4 in appendix C provides an overview of the barriers encountered by the sample. For each service accessed in the 12 months prior to the survey, participants indicated how much each of 13 potential barriers contributed to their inability to access the services they needed using responses of 1 = Did not apply to me at all, 2 = Applied to me to some degree, or some of the time, 3 = Applied to me to a considerable degree, or a good part of time, 4 = Applied to me very much, or most of the time. In Table 3, barrier scores were recoded with 0 = no encountered barriers, while a score of 2, 3, and 4 were combined and recoded as 1 to indicate some level of encountered barrier. Using the original scores, an average barrier score was also created for each group.

The total possible range for the frequency of barriers encountered by study participants was 0 to 13. For Caucasians born in Canada (Group 1) the average barriers encountered was 2.69 (sd = 2.2) with a range of 0 (lower bound) and 9 (upper bound). For ethnically diverse individuals born in Canada (Group 3), scores for the average number of barriers encountered was 3.56 with a range of 0 (lower bound) and 10 (upper bound). For ethnically diverse participants born outside of Canada (Group 4), the average number of barriers encountered was 2.66 with a range of 0 (lower bound) and 13 (upper bound).

The most frequently reported barrier was “I could not afford it” with a total of 84 reported cases (22 reported cases by Caucasians born in Canada, 23 by

ethnically diverse individuals born in Canada and 39 cases by ethnically diverse individuals born outside of Canada). The least frequently report barrier reported by respondents was “language problems with a total of 9 reported cases (1 reported case by Caucasians born in Canada, 2 cases by ethnically diverse individuals born in Canada and 6 cases by ethnically diverse individuals born outside of Canada).

To assess for differences in mean access barrier scores between the mainstream society and ethnically diverse groups differentiated by race, a t-test for independent samples was completed. The Levene’s test for equality of variance was not significant [$F = 3.78$, $p = .054$]. Using the test statistic for equal variance, we found no significant difference in mean access barrier scores [$t = -.58$, $p = .56$] between the mainstream society [$\bar{x} = 2.66$, $sd = 2.18$) and ethnically diverse individuals [$\bar{x} = 2.95$, $sd = 2.84$).

Next, a one-way ANOVA was conducted between the mainstream society and ethnically diverse groups differentiated by both race and birth country to account for ethnicity. A new variable was created by summing all the access barrier scores with higher numbers reflecting a higher frequency of barriers encountered by respondents and lower numbers reflecting lower frequency of barriers encountered while attempting to access health and social services. The one-way ANOVA was conducted with the new group variables to compare more than 2 groups to explore the impact of ethnicity on access barriers. There was no significant difference in access barrier scores for the three groups [$F(2, 172) = 1.8$, $p = .17$].

Question 3: How does health and social service effectiveness compare among ethnically diverse and mainstream individuals experiencing a mental illness?

Overall Item-specific Service Effectiveness

Table 5 (see appendix C) provides an overview of the service effectiveness perceived by respondents. Looking at the services that were used by 50 participants or more, the effectiveness rating by the 3 groups (Caucasians born in Canada, ethnically diverse born in Canada and ethnically diverse born outside of Canada) were comparable. As we can see, family doctors or general practitioners are the most frequented service with a total of 175 respondents having used this service in the last 3 months with an average of 88% rated effectiveness. Next, transportation services were used by 76 respondents with an average effectiveness score of 79%. Certified counsellor was 76% effective, emergency department was 72% effective, walk-in clinics at 70%, food bank at 69%, financial services at 68% and finally, education and employment services at 51% effective. It appears that drug/alcohol treatment program was the least effective at 33%, but with only 6 respondents having used it in the last 3 months.

Comparing average effectiveness scores across groups

To assess for differences in mean service effectiveness scores between the mainstream society and ethnically diverse groups differentiated by race alone, a t-test for independent samples was completed. The mean service effectiveness scores were created by summing all service effectiveness items responded among the 21 categories derived from a modified version of the

Effectiveness in Obtaining Resources Scale (EORS: Bybee & Sullivan, 2002). Next the summed score was divided by the total number of services participants accessed or attempted to access in the three months prior to the survey. This approach accounts for those items that were not responded to by each participant. The Levene's test for equality of variance was significant [F = 3.95, p = .048]. Using the test statistic for unequal variances, no significant difference in mean service effectiveness scores was found [t(52.5) = 1.84, p = .071] between the mainstream society [$\bar{x}$ = 2.23, sd = .75] and ethnically diverse individuals [$\bar{x}$ = 1.99, sd = .62].

A one-way between-groups analysis of variance was conducted to explore the differences in service effectiveness between the mainstream society and ethnically diverse groups differentiated by race and birth country. Subjects were divided into 3 groups of participants (Group 1: Caucasians born in Canada; Group 3: ethnically diverse individuals born in Canada, and finally Group 4: ethnically diverse individuals born outside of Canada). A one-way ANOVA was conducted with the new group variables to compare more than 2 groups. Table 6 in Appendix C provides an overview of the one-way ANOVA analysis. There was a statistically significant difference in the service effectiveness scores for the three ethnic groups [F(2, 172) = 3.12, p = .046]. Despite reaching statistical significance, the actual difference in mean scores between the groups was small. Furthermore, post-hoc comparisons using the Tukey HSD test, indicated that the mean scores for Caucasians born in Canada ($\bar{x}$ = 2.23, sd = .77), ethnically diverse individuals born in Canada ($\bar{x}$ =2.12, sd = .57) and ethnically diverse

individuals born outside of Canada ($\bar{x}$ =1.93, *sd* = .65) did not have statistically significant differences from one another.

Figure 1 provides an illustration of the difference in mean scores in service effectiveness between the 3 groups. The effect size, calculated using eta squared, was 0.04 indicated a medium size effect (Cohen, 1977).

Because a significant difference in service effectiveness scores was found, further analysis was conducted to determine the interaction between the different independent variables.

A two-way between groups ANOVA was conducted to further explore the impact of race and birth country on service effectiveness. There were no statistically significant differences in service effectiveness scores between the groups. The main effect for birth country [F(1, 174) = .21, *p* = .65] did not reach statistical significance. The main effect for race [F(, 174) = 1.1, *p* = 1.0] and the interaction effect [F(1, 174) = .20, *p* = .66] also did not reach statistical significance.

Discussion

The objective of this study is to explore the challenges and barriers faced by ethnically diverse individuals experiencing a probable mental illness particularly as they attempt to access community supports and resources. More specifically we used an intersectionality framework to examine this among individuals experiencing a probable mental illness and who self-identify as belonging to ethnically diverse populations.

In the following sections, we will discuss our findings in terms of its strengths, limitations, its implications for research, practice, policy and its generalizability. In light of previous and current literature, we will outline the consistencies and differences to our findings as well as offer some explanations for the conclusions we have drawn.

Key Findings

In answering the 3 research questions about the difference in average access difficulty, barriers encountered and rated service effectiveness between ethnically diverse individuals and the mainstream society living with mental illness using race as a variable, we did not find any significant differences. When race and birth country were both incorporated to create a new ethnicity variable, we did not find any significant differences in access difficulty and barriers encountered, but there was a significant difference in service effectiveness.

Statistical significance was found in rated service effectiveness when groups from Caucasians born in Canada (Group1), ethnically diverse individuals born in Canada (Group 3) and ethnically diverse individuals born outside of Canada (Group 4) were compared. Group 2 representing Caucasians born outside of Canada was not included in the analysis due to a low number of respondents falling under that category. The difference in service effectiveness scores can be seen in Figure 1 in appendix C.

It is interesting and perhaps noteworthy that even though there was a statistical significance tested between the groups from different races and birth countries, somehow that did not translate into differences when we further

analysed the interaction between race and birth country as separate variables. Intersectionality's rejection of the single-axis analysis, which suggests that the analysis of variables as separate entities as we have with a two-way ANOVA using race and birth country, does not truly capture the reality of the experience of the participants and essentially ignores the co-existence of multiple identities ((Crenshaw, 1989; Bowleg, 2012).

Other Important Findings

Immigration.

Because birth country only captured whether someone was born in Canada and not the different lengths of stay in the country, there would be no differentiation between study participants with a higher level of cultural assimilation, which is an important aspect of the definition of ethnicity. Ethnically diverse individuals who were born in Canada may be influenced by cultural values and linguistic skills passed down from previous generations, but they may also have had more time to assimilate into the mainstream culture, giving them somewhat of an advantage in health literacy, navigating and seeking health and social services directly affecting access difficulty, barriers encountered and perceived service effectiveness compared to ethnically diverse individuals who happen to be new immigrants, for example. This is supported by Garcia et al. (2011) claiming that beliefs and awareness of resources serve as the biggest challenges to accessing mental health services and Chen et al. (2008)'s findings that the length of residency, language proficiency and place of origin are associated with the rate of service utilization.

When we refer to the cases reported for access barriers encountered in table 4 of appendix C, the fourth highest reported barrier was “I didn’t know where to go or could not get information about it”, with a total of 49 reported cases accounting for 28% of study participants. This may be an indication of the low health literacy in the general Canadian population as suggested by Eggertson (2011) since health literacy is not only defined by the comprehension of health information received, but also how an individual seeks and acquires health information to make informed decisions about their health. Even though Eggertson (2011) found that the majority of Canadians have poor health literacy, having a longer length of residency certainly presents more opportunities for individuals to improve their health literacy and thus, ameliorate some of the difficulties and barriers encountered when accessing health and social services

Given that the majority of our study participants are of a minority race and born outside of Canada, one would expect to find higher reported cases for barriers related to immigration status, but the data is showing that the three lowest reported cases for access barriers are actually, “I did not access due to cultural or religious reasons” with 12 reported cases at 7%, “I was denied service due to discrimination” with a total of 10 cases accounting for 6%, and finally, “language problems” at a total of 9 reported cases accounting for 5% of the sample. This may appear to support the notion that immigration status and cultural assimilation play small roles in access barriers for individuals living with mental illness, but a closer scrutiny of the design, sample selection and method

may be able to provide a fuller explanation of why these seemingly significant barriers were underreported in this study.

What we have here simply implies that when compared to access barriers that affect all participants with mental illness such as “I could not afford it” with 84 reported cases accounting for 48% as the highest reported barrier, followed by “I had problems with transportation” with 60 reported cases at 34%, and finally “There was a waiting list for services I needed” with 58 reported cases at 33%, cultural/religious reasons, language barriers and discrimination are the least prevalent barriers.

On the contrary, finding no difference in access difficulty, barriers and service effectiveness between the two groups differentiated only by race, using the t-tests infers that there may not be the level of discrimination posited by previous researchers that is based on race alone. These include: Venters et al. (2011) asserting that African Americans receive lower referral rates to mental health services; Mathews et al., 2006 reporting that ethnic minorities experience a greater burden from unmet mental health needs, and Cross & Singh, 2012 and Lehit et al. (2009)’s findings that an alarmingly high rate of misdiagnosis is frequently made to visible minorities.

According to Statistics Canada, “visible minorities” is defined as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour"(City of Toronto, 2014). Being named one of the most multicultural cities in the world with half of its population born outside of the country, 47% of its inhabitants self-identify as visible minorities (City of Toronto, 2014). Toronto

possesses a unique tolerance and acceptance for diversity, evident in their report that people who had a longer history of residency in Canada, including Europeans, were more likely to report that they come from multiple origins (City of Toronto, 2014).

The finding that there is no difference in access difficulty, encountered barriers and perceived service effectiveness between Caucasians and all other races does not come as a surprise in Toronto since close to half of all service consumers and providers are from diverse races, differing from the cultures and environments of which previous research reports were conducted.

The sample used for this study was selected from neighbourhoods of income-assisted men and women. Even though numerous studies (Chadwick et al., 2012; Hadland, Kerr, Li, Montaner & Wood, 2009; Wilton, 2004) point to the impoverishment that often accompanies mental illness, it does not represent all individuals living with mental illness and therefore, is unfitting to generalize these findings to people from higher social economic statuses experiencing mental illness. The most frequently reported barrier of affordability may be skewed due to the demographics of this group rather than reflecting the most pressing barrier encountered by all individuals with mental illness. With low income comes low employment rate, low self-esteem, poor mental and physical health, limited political participation, limited education, unstable housing, attenuated social networks, and unhealthy coping strategies (Wilton, 2004) that may be reflected in barriers described as “I didn’t get around to it/didn’t bother”, “I decided not to seek care/services”, “I didn’t know where to go or could not get information about

it” and “I was unable to leave the house because of health/mental health problems”. Because our sample only consisted of individuals receiving income assistance with similar demographics, this may also account for the reason why we saw no difference in the barriers encountered. As small as the percentage may be, including individuals experiencing mental illness from higher social economic statuses in the sampling may be able to glean new information on the degree of influence the social determinants of health have on individuals living with mental illness and also how ethnicity intersects with other characteristics affecting access to health and social services.

As we can see from the sample characteristics, there are unequal numbers in the mainstream and ethnically diverse groups. Even though statistically we were able to account for this by testing and ensuring for equal variances between the groups, a larger sample representing the mainstream society and a larger total sample would fortify the generalizability of the findings to a larger group. An essential category in the originally intended four groups to include Caucasians born outside of Canada was not part of the analysis due to a low number of participants falling in that category (3). This would have been able to strengthen the results and perhaps shed light on new findings that could have been missed in this study.

For example, comparing Caucasians born in and outside of Canada with ethnically diverse individuals born in and outside of Canada would have given us a fuller picture of the factors race and cultural assimilation play in access difficulty, barriers encountered and service effectiveness perceived by care

consumers. If there were differences between Caucasians born in Canada with Caucasians born outside of Canada, then we would be able to strengthen our conclusion that race may not be the most responsible factor.

Stigma.

As previously mentioned, there are two dimensions of stigma including "public stigma" and self-stigma (Isaac et al, 2010). Both types of stigma play important factors in the responses received from participants, especially "self-stigma". Even though all respondents' privacy and confidentiality was protected in the data collection process, narratives from people living with mental illness reported by The Standing Senate Committee on Social Affairs, Science and Technology (2006) strongly indicate that living with mental illness with any reminders about having this diagnosis triggers a great degree of hopelessness and frustration. This is evident in the multiple statements from different individuals "begging" and "praying" to be diagnosed with "breast cancer" or "any other disease" than mental illness.

To capture the experiences of individuals who choose not to respond, data must include the perspectives of care providers as well as care consumers. The previous study from which the data was derived from did not specifically look at stigma, but the questions in the survey addresses stigma by including barriers that are directed at perceived discrimination as well as choices respondents made to avoid exposure of mental illness and judgment from others.

The access barriers reported pertaining to stigma which can be found in table 4 in appendix C indicates that these are not the most frequently reported

barriers, but they lie somewhere in the middle of all barriers speaking to the ubiquity of stigma across different races and ethnicities with no statistical significance found between the groups for the barriers “I was denied access to the services I needed” with 22 reported cases at 13% and “I decided not to seek care/services with 26 reported cases at 15%. There was however, a statistical significance between the groups for the barrier “I didn’t get around to it/didn’t bother” with a total of 28 reported cases at 16% of study participants. Because this barrier includes an element of personal choice, it could be a reflection of not only the self-stigma felt by participants that is preventing them from accessing services, but this choice could also be due to reasons that affect one’s confidence in service navigation such as previous experience, length of residency and country of origin as suggested by previous literature as factors that make a difference in service access difficulty.

With the conclusion that there is no significant difference in access difficulty between the ethnically diverse individuals and the mainstream society experiencing mental illness, it seems that despite literature pointing to the vulnerabilities ethnically diverse individuals experience in accessing health and social services, mental illness appears to overshadow the struggles created by different identities in race, ethnicity, birth country and immigration status altogether. In other words, ethnically diverse individuals may have more difficulty in accessing health and social services compared to the mainstream society as suggested in current literature, but if both groups are affected by mental illness, then the difficulties experienced become very comparable. As mentioned earlier,

due to the unique demographic characteristics and culture of Toronto, these findings may not be readily generalized to other populations with less diversity. Policies and programs focused on reducing the stigma of mental illness with expanded resource-linking to multiple access points both in the community and institutions may be able to ameliorate access difficulty experienced by both mainstream and ethnically diverse individuals living with mental illness.

Study Implications

An explanation for the significant results in service effectiveness between the mainstream society and ethnically diverse individuals using the one-way ANOVA and no significance when using the two-way ANOVA could be offered using the intersectionality theoretical perspective. According to intersectionality, the separate analysis, also known as the “single-axis analysis” of the identities belonging to a group, fails to capture the reality of these individuals and the synergistic effects of the intersecting factors that make up their experience (Crenshaw, 1989, p.139). By applying these principals to the multiple identities and factors ethnically diverse individuals living with mental illness have, it is not sufficient and not appropriate to analyse or treat the entities separately, according to Bowleg (2012).

Even though the statistical tests allowed us to analyse the “interaction effect” which “occurs when the effect of one independent variable (race) on the dependent variable (perceived service effectiveness) depends on the level of the second independent variable” (birth country) (Pallant, 2007, p.229), it is quite different, than analysing individuals living with mental illness from different

ethnicities, birth countries and lengths of residency as one entity. If we apply the analysis of the “interaction effect” in theory to our variables of race and birth country, it does not appear to fully capture the essence of what we mean when we speak of interesectionality. Intersectionality refers to the multiple and intersecting forms of oppression that are intertwined with race and ethnicity (racism, discrimination) and country of birth (stigma, social exclusion). For example, if we are looking at the changes undergoing race, which in our case can only fall under Caucasian or ethnically diverse, we are in fact, not looking at how race changes since it is impossible to change an individual’s race arbitrarily, but if there are more or less Caucasians or ethnically diverse individuals falling into one category when birth country is altered. Since we cannot speak about birth country as different levels because neither being born outside of Canada or being born in Canada can be quantified as more or less than the other, we can only be looking at whether the number of individuals identified as Caucasians or ethnically diverse, increases or decreases when we consider if they were born in Canada or outside of Canada when looking at service effectiveness.

Further, when we tested for the ‘main effect” (Pallant, 2007, p.229) of race and birth country on service effectiveness separately in the two-way ANOVA, we are essentially ignoring the reality that people from various races with different birth countries co-exist. By deliberately ignoring birth country when looking at how Caucasians or ethnically diverse individuals differ in perceived service effectiveness, it is equivalent to saying that if a group of Caucasians and ethnically diverse individuals appeared from thin air since they cannot be said to

be born in Canada or anywhere else on Earth, then this would be the result in their perceived service effectiveness. Although this may generate interesting data, the results are not practical and therefore, cannot be applied to real-life situations.

Due to these differences in theory, we can now understand why there may have been a statistical significance between the group comparisons, but not when testing the changes undergoing one variable (race), affected by a second variable (birth country).

To gain a deeper understanding of these intersections occurring between multiple identities and to further explore the concepts related to oppression, power dynamics, discrimination, stigma and the effects of immigration, future research using qualitative methods of inquiry will be most appropriate as a follow-up to this study. Since we found that access difficulty and perceived barriers between ethnically diverse individuals and the mainstream society are comparable and a significant difference in service effectiveness, qualitative studies providing in-depth analyses of the experiences of these groups when accessing health and social services will perhaps unveil important insight and provide a more complete picture of the realities experienced by these groups.

Nursing Practice

With findings supporting that there are no differences in access difficulty, barriers encountered and perceived service effectiveness between different races in Toronto, nurses should continue to provide culturally sensitive and appropriate care to our multicultural populace as well as ensuring greatest efforts to be open

and accepting to diverse and blended cultures as we move to the future trend of increasingly blended and multi-racial clients (City of Toronto, 2014). Because our study suggests a potential difference in perceived service effectiveness between ethnic groups accounting for birth country and race, nursing care to mental health clients need to accommodate and address issues faced by all races, such as stigma, health literacy and immigration status in order to improve the accessibility and decrease the barriers encountered by this group.

Nursing Education

Since nursing knowledge and research is profoundly influenced by the biomedical model and positivist paradigm (Cody, 2006), it may be easy for nurses to pay more attention to the physical symptoms of mental illness and overlook other factors affecting the client's sense of well-being. Chadwick et al. (2012) also point out that having a diagnosis of mental illness sometimes warrants less attention to the physical symptoms clients experience due to the insinuation that mental illness is "all in their heads". Given that the most frequently reported barriers were affordability, long wait lists and a lack of participation, nursing education may need to have more emphasis on psychosocial assessments and collaboration with the multidisciplinary team around resource linking, early detection of other mood disorders and effective discharge planning to increase participation, support patients' financial well-being and alleviating waitlists by transitioning patients who require an alternate level of care. Nursing education also needs to have a greater emphasis on other theoretical and philosophical perspectives supporting nursing values such as

holistic health, social justice, equality and advocacy. This will further strengthen epistemological pedagogy unique to the nursing profession, lending confidence in research and knowledge dissemination to improve access and care for individuals living with mental illness.

Health and Social Service Policy

Even though race does not appear to be a factor affecting service access by individuals living with mental illness, our findings suggest that ethnicity which encompasses length of residency, immigration status, and cultural assimilation require special attention to alleviate the underutilization of services by this group. The development and revision of health and social service policies and programs to improve accessibility and reduce cost for individuals living with mental illness need to consider programs to assist in immigration transition, education in health literacy, especially for those learning English as a second language, and policies to reduce stigma and social inequalities.

Strengths and Limitations

Sample Size

Before generalizing the findings to a larger population, it is important to look at the sample size to see whether it is representative of the population of interest. According to Salkind (2010), statisticians have come up with the number 30 as the minimal sample size to meet the assumption that the sample is large enough for parametric statistics, but using Suresh and Chandrashekaran (2012)'s formula to calculate required sample size when accounting for the alpha value, power and effect for this study, the required sample size is 384. Similarly,

following McCrum-Gardner's (2010) suggestion to use software to calculate sample size, we came to a suggested sample size of 351 when accounting for a margin of error of 5%, confidence level of 95%, a total population of 4000 potential recruits, and the response distribution of 50%. The sample size we used for this study was approximately half of that at 178 giving us a margin of error of approximately 6.75% and a confidence level of 85%. Even though it is not the suggested sample size, the sample we have still has a reasonably small margin of error and a relatively high level of confidence. Having a significant value for service effectiveness so close to accepting the null hypothesis may be a sign that perhaps a larger sample size as suggested above may be able to solidify the differences between the groups with a greater significant value.

The response rate of our study, which is 13% is a big limitation and according to Armijo-Olivo, Fuentes, Muir, and Gross (2013) is under the typical response rate of approximately 20% and well below the response rate of epidemiological studies for psychological disorders (Galea & Tracy, 2007). With stigma having such a profound effect on those affected by mental illness including unequal resource allocation (Chadwick, et al., 2012), links to violence (Bilchik, 2004), negative attitudes from service providers (Pescosolido et al., 2013; Charlot & Beasley, 2005) and exploitation (Xenitidis et al., 2004), it is fair to assume that a significant percentage of potential recruits may have chosen not to participate in the study to avoid the label of having a mental illness. For this reason, extreme caution must be applied to generalize findings from this study to

larger populations, although it may be more representative of populations receiving social assistance and be more generalizable to that population.

Design

Even though a cross-sectional design allows us to collect data all at once reducing the rate of attrition over time, it cannot always guarantee a large sample when dealing with the mental health population due to “public” and “self” stigma (Isaac et al, 2010, p.78). When looking at the reported frequency of access barriers shown in Table 4 in appendix C, we have mentioned earlier that language problems was the least reported barrier with a total of 9 cases. It may appear at first that individuals with mental illness do not in fact, have low health literacy as suggested by Eggertson’s (2011) findings, but when we consider the low response rate of 13% and the potential participants it represents, which excludes those who do not have the language proficiency in English to respond to the web or telephone surveys, we conclude that these individuals, particularly, new immigrants who are from ethnically diverse backgrounds, were not included in the study in the first place.

This may skew the sample to over-represent those with higher language proficiency. The same could be said about stigma and cultural assimilation. With the next lowest reports in discrimination as a barrier (10 cases) and cultural and religious reasons acting as a barrier (12 cases), we must critically contemplate whether the majority of individuals with mental illness are not affected by language, cultural and discriminatory barriers, or if these individuals are less likely to be included in this study due to these very reasons.

Even though the majority of participants are born outside of Canada (79%) with significant amounts of people identifying as landed immigrants (27%), refugees (23%) and temporary residents (9%), a possible explanation for the low reports of discrimination and cultural differences acting as barriers to the ethnically diverse participants in our sample may be the differences in age, resource awareness, place of origin, length of residency and previous experience as reported by Garcia et al. (2011) and Chen et al. (2008). For it seems very plausible for an ethnically diverse individual with mental illness to not attempt to access services due to a lack of awareness of services, low language proficiency, short length of residency, no previous experience and facing discrimination to also not participate or respond to a survey to be included in a research study. With that said, engagement of researchers with recruitment/clinical staff during design phase to making special considerations for potential participants with cultural and language barriers and maximizing availability for the recruitment of participants to include more telephone and in-person interviews as suggested by Shue (2011) may be able to improve the low response rate in this study.

This study uses a cross-sectional design, which is fitting as it describes the status of phenomena, which in this case, is the difficulties individuals living with mental illness experience in accessing health and social services and its relationships with ethnicity at a single point in time. The main strength of the cross-sectional design is that it allows us to capture a large sample of phenomena under study in a relatively easy, economical and time-efficient

manner. We were able to measure the prevalence of all factors under investigation and the outcomes and exposure of access difficulty, barriers encountered and service effectiveness at the same time. This is especially important when assessing the disease burden of mental illness to generate findings for the purpose of resource allocation and planning (Barratt & Kirwan, 2009). Another advantage of a cross-sectional design is that data is only collected once, which both minimizes time and resources spent in data collection as well as the potential of drop-outs or unequal recruitment of post-test participants if we were to say, collect data on access difficulty experienced by new immigrants of 0-1 year and follow up with another data collection session in a few years to compare the results. Some designs like case-control studies may depend on the hospitalization of subjects, for example, for the recruitment of both the control and experiment groups. Not only would this be unrepresentative of the target population, but it can sometimes obscure who the target population is. One of the strengths of the cross-sectional design is that it does not rely on conditional circumstances to recruit subjects, thus providing a more representative sample. This design is especially well-suited for descriptive analyses and generating hypotheses as a starting point for future research to build on, especially when it is a pioneer in analysing all ethnically diverse individuals living with mental illness as a collective group rather than individual ethnic groups. Since little is known about the direction the results of the inquiry would take, this study can be used as a foundation to design more specific and in-depth analysis that would uncover a greater understanding of the phenomenon of interest. At last, cross-sectional

design is especially suitable for capturing diseases with no clear onset, such as mental illness as it is difficult to measure incidence as this may be the only appropriate design for measuring prevalence.

One of the primary weaknesses of a cross-sectional study is that it cannot establish a cause-and-effect relationship. If we were interested in the causal relationship between mental illness and poverty, a cross-sectional study may be able to affirm the existence of the relationship, but would not be able to determine whether poverty causes mental illness or if mental illness causes poverty. By studying the difference between ethnically diverse individuals and the mainstream society living with mental illness in service access, we can be affirmative that ethnicity proceeds access difficulty. Because it would make no sense to ponder whether someone was a certain ethnicity due to difficulty in service access, the pressure to establish a causal relationship was thus, eliminated.

A second weakness of a cross-sectional design is that individuals with a shorter duration of mental illness are less likely to be captured in a cross-sectional design. For example, these include people who recovered, found a cure or died soon after diagnosis. This causes an overrepresentation of participants with a longer disease duration also known as the prevalence-incidence bias. Our study took measures to minimize this by including participants who may not be experiencing mental illness at this time, but at any time in their lives. The survey questions clearly asked if participants had experienced or been diagnosed with mental illness in their lifetime. The ratings for access difficulty, barriers

encountered and service effectiveness were also captured in a quantifiable time-frame so that it could include participants who have long since recovered or are effectively managing mental illness.

In our discussion, we mentioned using the variable of immigration status to reflect length of residency in order to measure cultural assimilation. Even though a cross-sectional design would allow us to collect samples of individuals living with mental illness with different lengths of residency during one period of data collection, we cannot eliminate the potential effect time may have over the cohorts. For example, in comparing someone who had been an immigrant for 0-4 years to an immigrant with 5-10 years of residency, we are essentially assuming that the first group would have the same responses as the latter group in 5 years' time. This opens up other possible explanations for the results which may include changing trends with the aging population (Statistics Canada, 2010), a greater number of people projected to be affected by mental illness in the future (Mental Health Commission of Canada, 2011) and the ever growing diversity and acceptance of diversity in Toronto (City of Toronto, 2014). A longitudinal study on the other hand, may be able to minimize alternative explanations for the findings when following participants through the years of cultural assimilation.

Due to the diversity in Toronto, it would be insufficient to isolate any one ethnic or cultural group for the study of its relationship with mental illness since the findings could not be generalized to the larger population. As evident in the demographic characteristics, ethnically diverse populations make up the majority of the sample size at 78%. It is therefore essential to study all ethnically diverse

groups as one collective variable when looking at access difficulty. But at the same time, this diversity that is unique to Toronto makes it difficult to generalize the findings to other populations just outside of Toronto, therefore caution must be applied when doing so.

Ethnicity speaks to the varied cultural practices, beliefs and values that are different from the majority or mainstream group. To gain a deeper understanding of the phenomenon of interest, we must not only look at groups with initially different cultures, but also account for the changes they go through in adapting the mainstream culture. Some studies point to the importance length of residency, language proficiency, place of origin (Chen et al., 2012) and resource awareness (Garcia et al., 2011) have in accessing health and social services. This suggests that there are other factors besides race and birth country that affect their cultural assimilation to the mainstream culture. For these reasons, it may not be sufficient to compare access difficulty between ethnically diverse individuals and the mainstream society accounting for race and birth country alone. A study that is able to capture the immigration status or length or residency may be able to reflect the different levels of cultural assimilation that is fundamental to understanding the role ethnicity plays in access difficulty.

As we present alternative explanations for our findings, it appears that there are numerous intersecting factors and identities that make up the realities for ethnically diverse individuals living with mental illness that cannot be captured and understood in isolation. For example, there are new immigrants from countries with similar cultures, or new immigrants with previous experience in

accessing health care services in Canada versus immigrants who have lived in Canada for over 30 years, but do not speak a word of English. Our findings suggest that the initial query of whether ethnically diverse individuals living with mental illness have an added vulnerability in accessing health and social services may not be true, but the phenomena of how these factors interact to form the realities for this group remains poorly understood. To unveil some of the mystery, our study not only presented results on access difficulty between ethnically diverse individuals and the mainstream society, but it also presented findings in barriers encountered and perceived service effectiveness, increasing the validity of the results by triangulation. Because it is difficult to study all factors at play simultaneously using quantitative inquiry, this calls for more research that uncovers the complexities and multi-faceted challenges ethnically diverse Canadians living with mental illness experience while accessing care using a qualitative approach.

Conclusion

What we know

The results of our statistical analyses point to no difference between ethnically diverse individuals and the mainstream society living with mental illness in access difficulty and barriers encountered. The significant difference found in perceived service effectiveness between the groups have to be confirmed by many repeated studies with larger sample sizes to better represent the targeted population of individuals living with mental illness. Even though extreme caution has to be applied when generalizing the results to populations

outside of Toronto with less diversity, the inclusion of all ethnically diverse groups in our study is the first of its kind to address the unique population in Toronto—which makes it more relevant than studies that only focus on one particular ethnicity when applying findings in highly diversified populations.

What we do not know

Despite the numerical and objective results this study was able to produce through quantitative inquiry, there remains to be some areas that need to be explored in order to gain more insight into the experiences of ethnically diverse individuals living with mental illness. Future studies need to include participants living with mental illness from higher socio-economic statuses, immigrants with different lengths of residency, Caucasians born outside of Canada, individuals with particular difficulty in language and cultural differences, and the perspective of service providers to capture those potential participants who otherwise would not participate in research for various reasons.

What we have learned

Being one of the first studies to treat all ethnically diverse individuals living with mental illness as one group provides a starting point to answering a research query that people knew little about. A quantitative, cross-sectional design was apposite to serve as a foundation for other research studies to build on to further our knowledge in the subject. We now know that regardless of race and birth country, individuals living with mental illness experience comparable levels of access difficulty and barriers. Future research should aim to fully

represent the targeted population and treat their multiple identities using theoretical perspectives that embraces and encompasses them simultaneously.

The implications of this study urges nurses and healthcare professionals to continue providing culturally sensitive care to mental health patients regardless of ethnicity, and also to view challenges encountered by this group not in isolation, but collectively to develop best practice guidelines and policies to address the stigma, social factors and determinants of health that can improve and optimize access to health and social services, service delivery effectiveness and promote mental health and wellness for all. Qualitative research to include the service provider perspective as well as the care consumer perspective is needed to glean a better understanding of the experiences of individuals living with mental illness in accessing health and social services.

Critical Reflection

At the beginning of this study, I sought to undercover some of the inequalities faced by those discriminated by both mental illness and ethnically diverse backgrounds causing unnecessary disease burden as well as suppressing the principle of justice. As the findings of this study were unveiled, the assumptions of the Critical Social Theory were met as I learn that even deep-rooted values and beliefs supporting stigma can be changed in populations that are highly diverse. I learned that by critiquing the limitations of the study such as the representativeness of the sample, I have come to some of the answers to the reasons why certain participants were not included. By using the theory of intersectionality to inform nursing practice in viewing individuals living with mental

illness as having many intersecting factors and identities that affect their access to health and social services simultaneously, I am better able to reconcile this knowledge for suggested implications in nursing practice, educations and policy. As the trends in society and health care produces change, the study of ethnically diverse individuals living with mental illness must be reflexive and continue beyond this study, opening it up for critical reflection and public debate.

I am both surprised and content to learn that ethnically diverse individuals living with mental illness may experience comparable levels of access difficulty as the mainstream society. I am also perturbed that if mental illness overshadows the social determinants of health in access to care, it will be more difficult to reconcile knowledge gained from subsequent studies for study implications as the complexity of factors and identities suggested by intersectionality grow evermore intricate.

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Appendix A

Certificate #: STU 2014 - 038

Approval Period: 04/28/14-04/28/15

Memo

OFFICE OF RESEARCH ETHICS (ORE)

5th Floor,
Kaneff Tower,
4700 Keele St.
Toronto ON
Canada M3J 1P3
Tel 416 736 5914
Fax 416 650 8197
www.research.yorku.ca

To: Huy Ngo, School of Nursing - Graduate Program, huy@yorku.ca

From: Alison M. Collins-Mrakas, Sr. Manager and Policy Advisor, Research Ethics
(on behalf of Duff Waring, Chair, Human Participants Review Committee)

Date: **Tuesday, January 13, 2015**

Re: Ethics Approval

The Experiences of Ethnically Diverse Groups with Mental Illness in Accessing Health and Social Services: The Care Consumer and Prover Perspectives

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I am writing to inform you that the Human Participants Review Sub-Committee has reviewed and approved the above project.

Should you have any questions, please feel free to contact me at: 416-736-5914 or via email at: acollins@yorku.ca.

Yours sincerely,

Alison M. Collins-Mrakas M.Sc., LLM
Sr. Manager and Policy Advisor,
Office of Research Ethics

RESEARCH ETHICS: PROCEDURES to ENSURE ONGOING COMPLIANCE

Upon receipt of an ethics approval certificate, researchers are reminded that they are required to ensure that the following measures are undertaken so as to ensure on-going compliance with Senate and TCPS ethics guidelines:

1. **RENEWALS:** Research Ethics Approval certificates are subject to annual renewal.
    a. Researchers are required to submit a request for renewal to the Office of Research Ethics (ORE) for review and approval.
    b. **Failure to renew an ethics approval certificate or** (to notify ORE that no further research involving human participants will be undertaken) **may result in suspension of research cost fund and access to research funds may be suspended/withheld** ;

2. **AMENDMENTS:** Amendments must be reviewed and approved **PRIOR** to undertaking/making the proposed amendments to an approved ethics protocol;

3. **END OF PROJECT**: ORE must be notified when a project is complete;

4. **ADVERSE EVENTS**: Adverse events must be reported to ORE as soon as possible;

5. **AUDIT:**
    a. More than minimal risk research may be subject to an audit as per TCPS guidelines;
    b. A spot sample of minimal risk research may be subject to an audit as per TCPS guidelines.

FORMS: As per the above, the following forms relating to on-going research ethics compliance are available on the Research website:

a. Renewal
b. Amendment
c. End of Project
d. Adverse Event

Appendix B

Toronto Mental Health Study

Significant Events: You have answered several questions about stressful and traumatic events you may have experienced in your lifetime. If you indicated that you experienced any of the events below, which of these has been most significant in terms of its impact on your physical, emotional, spiritual, and social well–being?

- ○ Living as an unarmed civilian in a place where there was a war, revolution, military coup or invasion
- ○ Living as an unarmed civilian in a place where civilians were terrorized
- ○ Becoming a refugee
- ○ Seeing atrocities or carnage or mutilated bodies or mass killings
- ○ Automobile accident
- ○ Other life-threatening accident
- ○ Natural disaster
- ○ Life-threatening illness
- ○ Being badly beaten by a stranger or someone your were not close to
- ○ Being raped
- ○ Being sexually assaulted
- ○ Being stalked/harassed by an ex-partner
- ○ The violent death of someone close
- ○ Hearing about the traumatic experience of someone close to you
- ○ Witnessing someone being badly injured or killed, or unexpectedly see a dead body
- ○ Childhood abuse - physical, sexual, emotional
- ○ Partner abuse - physical, sexual, emotional
- ○ Some other event not mentioned here _____
- ○ Some other event that I cannot talk about

The following 24 statements describe things that people can feel, think, or do after living through frightening or traumatic events. After reading each statement, please tell me how often you have experienced each event in the past month. There are no “right” or “wrong” answers, so please indicate the answer that is most true and accurate for YOU.

In the past month.....

	Not at all	Rarely	Sometimes	Often
Remembered a traumatic event or experience even if I didn’t want to remember	○	○	○	○
Went away in my mind, trying not to think about a frightening event	○	○	○	○

Had frightening dreams or nightmares about a traumatic event	○	○	○	○
Felt unsafe, uneasy, or in danger in everyday situations	○	○	○	○
Stayed away from any reminders of a traumatic event	○	○	○	○
Thought repeatedly about a trauma that happened to me or someone close to me	○	○	○	○
Woke up and could not get back to sleep	○	○	○	○
Felt like I was reliving a traumatic event, or certain parts of it (e.g., had a flashback)	○	○	○	○
Felt jumpy, or shaky inside	○	○	○	○
Had frightening images or memories popping into my head	○	○	○	○
Was startled by loud or sudden noises or when I suddenly sensed someone behind me	○	○	○	○
Tried not to think about a traumatic event or experience	○	○	○	○
Did something to take my mind off bad memories	○	○	○	○
Tried to avoid people, places, or situations that remind me of bad memories	○	○	○	○
Had trouble remembering part of a traumatic event or experience	○	○	○	○
Had trouble concentrating (found myself being distracted from what I was doing)	○	○	○	○
Felt numb	○	○	○	○
Did not enjoy the company of others as I used to	○	○	○	○
Felt hopeless or pessimistic about the future (e.g., felt like my life was over)	○	○	○	○
Had a hard time getting rid of bad memories when they came back to me	○	○	○	○
Was not enjoying activities or hobbies that I enjoyed before a trauma happened	○	○	○	○
Did not feel or express feelings as I used to before the traumatic event(s)	○	○	○	○
Felt disconnected or withdrawn from other people	○	○	○	○
Had less interest in, or patience for, everyday tasks or activities	○	○	○	○

The next sets of questions ask you to think about what your mood has been like over the past week. For each question, consider how often IN THE LAST WEEK the symptom troubled you and how much of the time.

During the past week the following applied to me...

I found it hard to wind down	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I couldn't seem to experience any positive feeling at all	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I found it difficult to work up the initiative to do things	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I tended to over-react to situations	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I felt that I was using a lot of nervous energy	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I felt that I had nothing to look forward to	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time

	○ Very much, or most of the time
I found myself getting agitated	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I found it difficult to relax	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I felt down-hearted and blue	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I was intolerant of anything that kept me from getting on with what I was doing	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I was unable to become enthusiastic about anything	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I felt I wasn't worth much as a person	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I felt that I was rather touchy	○ Not at all

	○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time
I felt that life was meaningless	○ Not at all ○ To some degree, or some of the time ○ To a considerable degree, or a good part of time ○ Very much, or most of the time

MENTAL HEALTH HISTORY

Please answer these questions about your mental health history.

Have you EVER been diagnosed with any of the mental health problems listed below?

	Yes/No	Age at diagnosis	Type of treatment received	Is this still a problem
Bipolar disorder	○ Yes ○ No	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ... 24 additional choices hidden ... ○ 36 ○ 37 ○ 38 ○ 39 ○ 40 ○ 41 ○ 42 ○ 43 ○ 44 ○ 45	○ Education about illness only ○ Medication only ○ Counseling only ○ Education and Medication only ○ Education and Counseling only ○ Counseling and Medication only ○ Education, Medication, and Counseling ○ Other treatment	○ Yes ○ No

			not listed here ○ I did not receive treatment ○ I refused treatment of any kind	
Generalized anxiety disorder	○ Yes ○ No	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ... 24 additional choices hidden ... ○ 36 ○ 37 ○ 38 ○ 39 ○ 40 ○ 41 ○ 42 ○ 43 ○ 44 ○ 45	○ Education about illness only ○ Medication only ○ Counseling only ○ Education and Medication only ○ Education and Counseling only ○ Counseling and Medication only ○ Education, Medication, and Counseling ○ Other treatment not listed here ○ I did not receive treatment ○ I refused treatment of any kind	○ Yes ○ No
Panic Disorder	○ Yes ○ No	○ 1 ○ 2 ○ 3 ○ 4 ○ 5	○ Education about illness only ○ Medication only	○ Yes ○ No

		○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ... 24 additional choices hidden ... ○ 36 ○ 37 ○ 38 ○ 39 ○ 40 ○ 41 ○ 42 ○ 43 ○ 44 ○ 45	○ Counseling only ○ Education and Medication only ○ Education and Counseling only ○ Counseling and Medication only ○ Education, Medication, and Counseling ○ Other treatment not listed here ○ I did not receive treatment ○ I refused treatment of any kind	
Major depressive disorder	○ Yes ○ No	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ... 24 additional choices hidden ... ○ 36 ○ 37 ○ 38 ○ 39	○ Education about illness only ○ Medication only ○ Counseling only ○ Education and Medication only ○ Education and Counseling only ○ Counseling and	○ Yes ○ No

		○ 40 ○ 41 ○ 42 ○ 43 ○ 44 ○ 45	Medication only ○ Education, Medication, and Counseling ○ Other treatment not listed here ○ I did not receive treatment ○ I refused treatment of any kind	
Obsessive-compulsive disorder (OCD)	○ Yes ○ No	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ... 24 additional choices hidden ... ○ 36 ○ 37 ○ 38 ○ 39 ○ 40 ○ 41 ○ 42 ○ 43 ○ 44 ○ 45	○ Education about illness only ○ Medication only ○ Counseling only ○ Education and Medication only ○ Education and Counseling only ○ Counseling and Medication only ○ Education, Medication, and Counseling ○ Other treatment not listed here ○ I did not receive treatment	○ Yes ○ No

			○ I refused treatment of any kind	
Posttraumatic stress disorder (PTSD)	○ Yes ○ No	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ... 24 additional choices hidden ... ○ 36 ○ 37 ○ 38 ○ 39 ○ 40 ○ 41 ○ 42 ○ 43 ○ 44 ○ 45	○ Education about illness only ○ Medication only ○ Counseling only ○ Education and Medication only ○ Education and Counseling only ○ Counseling and Medication only ○ Education, Medication, and Counseling ○ Other treatment not listed here ○ I did not receive treatment ○ I refused treatment of any kind	○ Yes ○ No
Schizophrenia	○ Yes ○ No	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10	○ Education about illness only ○ Medication only ○ Counseling only ○ Education and	○ Yes ○ No

		... 24 additional choices hidden ... ○ 36 ○ 37 ○ 38 ○ 39 ○ 40 ○ 41 ○ 42 ○ 43 ○ 44 ○ 45	Medication only ○ Education and Counseling only ○ Counseling and Medication only ○ Education, Medication, and Counseling ○ Other treatment not listed here ○ I did not receive treatment ○ I refused treatment of any kind	
Social phobia	○ Yes ○ No	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ... 24 additional choices hidden ... ○ 36 ○ 37 ○ 38 ○ 39 ○ 40 ○ 41 ○ 42 ○ 43	○ Education about illness only ○ Medication only ○ Counseling only ○ Education and Medication only ○ Education and Counseling only ○ Counseling and Medication only ○ Education, Medication,	○ Yes ○ No

		○ 44 ○ 45	and Counseling ○ Other treatment not listed here ○ I did not receive treatment ○ I refused treatment of any kind	
Drug addiction	○ Yes ○ No	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ... 24 additional choices hidden ... ○ 36 ○ 37 ○ 38 ○ 39 ○ 40 ○ 41 ○ 42 ○ 43 ○ 44 ○ 45	○ Education about illness only ○ Medication only ○ Counseling only ○ Education and Medication only ○ Education and Counseling only ○ Counseling and Medication only ○ Education, Medication, and Counseling ○ Other treatment not listed here ○ I did not receive treatment ○ I refused treatment of any kind	○ Yes ○ No

Alcohol Addiction	○ Yes ○ No	○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ... 24 additional choices hidden ... ○ 36 ○ 37 ○ 38 ○ 39 ○ 40 ○ 41 ○ 42 ○ 43 ○ 44 ○ 45	○ Education about illness only ○ Medication only ○ Counseling only ○ Education and Medication only ○ Education and Counseling only ○ Counseling and Medication only ○ Education, Medication, and Counseling ○ Other treatment not listed here ○ I did not receive treatment ○ I refused treatment of any kind	○ Yes ○ No

The next questions are about your use of alcoholic beverages.
By “alcoholic beverages” we mean beer, wine, vodka, and other liquors.

Have you ever felt you should cut down on your drinking?

○ Yes
○ No

Have people annoyed you by criticizing your drinking?

○ Yes
○ No

Have you ever felt bad or guilty about your drinking?

- ○ Yes
- ○ No

Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (eye opener)?

- ○ Yes
- ○ No

NEIGHBOURHOOD RESOURCE ACCESSIBILITY

In this section, we will ask about the health and social services you have recently used. We need to know how accessible the services were and how pleased you were with the service once used. In this study, we're interested in services YOU have accessed for YOURSELF, not those for your family, spouse/partner, or children.

Over the past 12 months, have you attempted to access any of services listed below. If you attempted to access a particular service, how difficult has it been to get the support that you need from the system (e.g., health care, housing, legal advice, social assistance)?

	Attempted to access	How difficult was it to access the service?	Once accessed, how effective was the care or service provided?
A health care provider such as a family doctor or general practitioner	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
An emergency department visit	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective

			○ Never accessed this service
A walk-in clinic/medical center	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
A specialist such as a gastroenterologist (stomach and bowel specialist), gynecologist/obstetrician, or surgeon	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
A mental health specialist such as a psychiatrist	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
A counselor such as a psychologist, social worker, or mental health nurse	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective

			○ Never accessed this service
A public health nurse	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
Legal Aid	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
A lawyer (other than legal aid)	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
Services for victims of violent crimes (victim services)	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective

			○ Never accessed this service
A crisis phone line (related to abuse)	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
A sexual assault/rape crisis services	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
An advocacy or counseling service related to abuse/trauma	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
An addictions counselor/ drug or alcohol treatment program	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective

			○ Never accessed this service
Childcare	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
Child protection or the services of a child protection worker	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
Emergency house or rent geared to income housing	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
Food bank	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective

			○ Never accessed this service
Education and employment services	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
Transportation services	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service
Financial services	○ Yes ○ No	○ Very difficult ○ Somewhat difficult ○ Not very difficult ○ Not at all difficult	○ Very effective ○ Somewhat effective ○ Somewhat ineffective ○ Very ineffective ○ Never accessed this service

RESOURCE BARRIERS

There are a number of reasons why people might not be able to access needed health and social service in their community. Please tell us how much each of the following contributed to your inability to access the services you needed for yourself in the past year.

Over the past year, I was unable to access needed services because...

There was no service in area	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time

	○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
There was a waiting list for services I needed	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
I had problems with transportation.	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
I needed childcare in order to access the service	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
I could not afford it	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
I didn’t know where to go or could not get information about it	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
I did not access due to cultural or religious reasons	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time

I felt the service would be inadequate	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
I was too busy with personal of family responsibilities	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
I didn't get around to it /didn't bother	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
Language problems	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
I was denied access to the services I needed	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
I decided not to seek care/services	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
I was unable to leave the house because of a health/mental health problem	○ Did not apply to me at all ○ Applied to me to some degree, or some of the time

I was denied the service due to discrimination	○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time ○ Did not apply to me at all ○ Applied to me to some degree, or some of the time ○ Applied to me to a considerable degree, or a good part of time ○ Applied to me very much, or most of the time
Other reason (please specify)	

Thank you for your participation. The results of this study will provide valuable information about how individuals cope with distressing and traumatic experiences, and will help contribute towards the development of better interventions and services aimed at helping people cope with such experiences

Registration Form: Toronto Mental Health Study

By submitting this CONSENT FORM, I agree to participate in the TORONTO MENTAL HEALTH STUDY and confirm that:

- I am 18 years or older.
- I read and understood the information I was given. I had the chance to ask questions and was satisfied with the answers. I had enough time to think it over and decide to participate.
- I understand that I will be a volunteer. I also understand that my answers to the interview questions will help researchers understand how traumatic and stressful life experiences affect the mental health of men and women in Toronto.
- I understand that I will answer a detailed survey about myself, my neighbourhood, stressful events that happened to me as a child and adult, my mental health, and the health and social services I use.
- I understand that I am volunteering to take part and that I can pull out from the Study at any time, without giving a reason. If I want to pull out, I will contact Joan Samuels-Dennis at 416-736-5700 or jsdennis@yorku.ca. If I

do withdraw, I understand that the researchers will delete all of my survey data.

- I accept that the information collected by the researchers will be kept for up to 5 years.

- By submitting this consent form, I understand that I do not waive my rights and that I can send my Ethical Concerns to:

  Alison Collins-Mrakas
  Senior Manager & Policy Advisor
  Office of Research Ethics
  York Research Tower
  Tel: 416.736.5914
  Fax: 416.736.5512

YOU MUST AGREE TO CONTINUE

○ I agree
○ I do not agree

REGISTRATION INFORMATION

First Name *

Last Name *

Street Address* (i.e. 2500 Jane Street apt 2 - no decimals)

Postal Code *

E-mail address (Required for on-line survey):

Telephone Number (Required for telephone survey):

PLEASE CREATE A USER ID. When you complete the survey, you will be asked to enter your user ID. Choose a User ID that is easy to remember (Limit to 3-10 characters).

We recommend the first 5 characters of your first name and your year of birth (i.e. donna1971)

Sex:

☐ Male
☐ Female

Age:

Month of birth
○ January

Year of birth
○ 2011

- ○ February
- ○ March
- ○ April
- ○ May
- ○ June
- ○ July
- ○ August
- ○ September
- ○ October
- ○ November
- ○ December

- ○ 2010
- ○ 2009
- ○ 2008
- ○ 2007
- ○ 2006
- ○ 2005
- ○ 2004
- ○ 2003
- ○ 2002

... 91 additional choices hidden ...

- ○ 1909
- ○ 1908
- ○ 1907
- ○ 1906
- ○ 1905
- ○ 1904
- ○ 1903
- ○ 1902
- ○ 1901
- ○ 1900

What is the highest level of education you have completed to date?

Highest level of education

- ○ Grade 1
- ○ Grade 2
- ○ Grade 3
- ○ Grade 4
- ○ Grade 5
- ○ Grade 6
- ○ Grade 7
- ○ Grade 8
- ○ Grade 9
- ○ Grade 10

... 5 additional choices hidden ...

- ○ College diploma (Partially Completed)
- ○ Bachelor’s degree
- ○ Bachelor’s degree (Partially Completed)
- ○ Graduate degree - Masters
- ○ Graduate degree - Masters (Partially Completed)
- ○ Graduate degree - PhD
- ○ Graduate degree - PhD (Partially Complete
- ○ Professional degree - Doctor, pharmacist, occupational therapist
- ○ Professional degree - Doctor, pharmacist, occupational therapist (Partially Completed)
- ○ Prefer not to answer

Marital status?

- ☐ Single (never married)
- ☐ Married
- ☐ Common-Law/Living with a partner
- ☐ Separated
- ☐ Divorced
- ☐ Widowed

Please indicate the racial group or groups to which you belong (Select all that apply)?

- ☐ Caucasian/White (of European descent)
- ☐ Native Canadian/Aboriginal
- ☐ Black (of African descent)
- ☐ Asian
- ☐ South Asian
- ☐ Pacific Islander/Filipino
- ☐ Hispanic (Latin American)
- ☐ Hispanic (Mexican)
- ☐ Arab/Middle Eastern
- ☐ Other (please specify): _____

Are you a parent/legal guardian for any children?

- ○ Yes
- ○ No

How many children ages 0 to 25 live with you?

- ○ 0
- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7
- ○ 8
- ○ 9
- ○ 10
- ○ 11
- ○ 12
- ○ 13
- ○ 14
- ○ 15

Were you born in Canada?

- ○ Yes

○ No

Please provide us with some details about your immigration.

Country of Birth
- ○ Afghanistan
- ○ Albania
- ○ Algeria
- ○ Andorra
- ○ Angola
- ○ Antarctica
- ○ Antigua and Barbuda
- ○ Argentina
- ○ Armenia
- ○ Australia

... 170 additional choices hidden ...

- ○ United Kingdom
- ○ United States
- ○ Uruguay
- ○ Uzbekistan
- ○ Vanuatu
- ○ Venezuela
- ○ Vietnam
- ○ Yemen
- ○ Zambia
- ○ Zimbabwe

When you or your family first came to Canada, what was your immigration status?

- ☐ Landed Immigrant
- ☐ Refugee
- ☐ Other, please specify: _____

What is the name of neighbourhood, community or surrounding area, in which you currently live?

Neighbourhood Name
- ○ Black Creek
- ○ Elms-Old Rexdale
- ○ Kingsview Village-The Westway
- ○ Kingsway South
- ○ Rexdale-Kipling
- ○ Willowridge-Martingrove-Richview
- ○ Other

Other neighbourhood (please specify): [ ]

During which YEAR did you first move to this neighbourhood?

- ○ 2011
- ○ 2010
- ○ 2009
- ○ 2008
- ○ 2007
- ○ 2006
- ○ 2005
- ○ 2004
- ○ 2003
- ○ 2002

... 91 additional choices hidden ...

- ○ 1909
- ○ 1908
- ○ 1907
- ○ 1906
- ○ 1905
- ○ 1904
- ○ 1903
- ○ 1902
- ○ 1901
- ○ 1900

You received income from Toronto Social Assistance. But did you or your family (your spouse or other family members older than 15) get an income from somewhere else from January 1, 2010 to December 31, 2010.

- ○ Yes
- ○ No

Please choose where you and your family (your spouse or other family members older than 15) got any extra income from.

(Check all that apply)

- ☐ Full-time or part-time wages and salaries
- ☐ Income from self-employment
- ☐ Dividends and interest (e.g. on bonds, savings)
- ☐ Employment insurance
- ☐ Workers compensation
- ☐ Child tax benefit
- ☐ Child support
- ☐ Alimony
- ☐ Goods and Services Tax and Harmonized Sales Tax (GST and HST) credit
- ☐ Rental income
- ☐ Other, please specify: _____

How would you like to complete the survey?

- ○ I would like to complete the survey on-line

- ○ I would like to complete the survey with a telephone interviewer
- ○ I would like to complete a paper questionnaire

REGISTRATION COMPLETE

Thank you for registering to participate in the Toronto Mental Health Study. You said that you would like to do the survey on-line. We will send you an email with a link to the survey in the next 24 hours. Your participation is appreciated, Joan Samuels-Dennis, RN, PhD Assistant Professor, York University Faculty of Health, School of Nursing4700 Keele Street Toronto, ON 416-736-5700 or 416-736-2100 ext. 40873

You said that you would like to do the survey with one of our telephone interviewers. Please provide us with 3 dates and times over the next week during which you can complete the study.

Field Notes (For use by research team)

Appendix C

Table 1 Sample Characteristics

Characteristics	Full Sample n(%)	Mainstream, Non-immigrant n(%) / $\bar{x}$(*sd*)	Diverse, Non-immigrant n(%) / $\bar{x}$(*sd*)	Diverse, Immigrant n(%) / $\bar{x}$(*sd*)
Age (**)	175 (100)	34.7(8.8)	28.3(5.9)	32.3(8.2)
Sex (*ns*)				
Male	59(33.7))	9(25.7)	12(29.3)	38(38.4)
Female	116(66.3)	26(74.3)	29(70.7)	61(61.6)
Education (*ns*)				
Grade School	5(2.9)	1(2.9)	0(0)	4(4.0)
High School	88(50.3)	18(51.4)	17(41.5)	53(53.5)
Post-Secondary	82(46.9)	16(45.7)	24(58.5)	42(42.4)
Marital Status (*)				
Single, never married	119(68.0)	21(60.0)	36(87.8)	62(62.6)
Married/Common-Law	22(12.6)	4(11.4)	2(4.9)	16)(16.2)
Separated/Divorced/Widowed	34(19.4)	10(28.6)	3(7.3)	21(21.2)
Canadian Born (**)				
Yes	76(43.4)	35(0)	41(100)	0(0)
No	99(56.6)	0(0)	0(0)	99(100)
Immigration Status (**)				
Landed Immigrant	44(25.9)	0(0)	0(0)	44(46.8)
Refugee	38(22.4)	0(0)	1(2.4)	37(39.4)
Visitor/Temporary Resident	15(8.8)	0(0)	2(4.9)	13(13.8)
Born in Canada	73(42.9)	35(100)	38(92.7)	0(0)

*Ns=no sig. difference, * p<.05, **p<.01*

Table 2 Mental Health Characteristics of the Sample

Mental Health Characteristics	Full Sample	Mainstream, Non-immigrant	Diverse, Non-immigrant	Diverse, Immigrant
	n(%)	n(%)	n(%)	n(%)
Probable PTSD (*ns*)				
Yes	110(62.9)	17(48.6)	26(63.4)	67(67.7)
No	65(37.1)	18(51.4)	15(36.6)	32(32.3)
Probable Alcohol Abuse (*ns*)				
No Alcohol Abuse	118(67.4)	22(62.9)	29(70.7)	67(67.7)
Likely Alcohol Abuse	57(32.6)	13(37.1)	12(29.3)	32 (32.3)
Probable Depression (*ns*)				
Normal/No Depression	12(6.9)	4(11.4)	2(4.9)	6(6.1)
Mild	9(5.1)	1(2.9)	2(4.9)	6(6.1)
Moderate	86(49.1)	21(60.0)	19(46.3)	46(46.5)
Severe	25(14.3)	1(2.9)	7(17.1)	17(17.2)
Extremely Severe	43(24.6)	8(22.9)	11(26.8)	24(24.2)

Note. Scales used to obtain data include: the Traumatic Stress Scale (TSS: Killian, Samuels-Dennis, Paulson, Maddoux, Fraser, 2012); The CAGE questionnaire (Bush, Shaw, Cleary, Deblanco, & Aronson, 1987) and the Depression Anxiety Stress Scale (DASS: Hudson & McIntosh, 1981).
*Ns=no sig. difference, * p<.05, **p<.01*

Table 3 Access Difficulty

Access Difficulty Descriptor	Difficulty	Mainstream, Non-immigrant n(%)	Diverse, Non-immigrant n(%)	Diverse, Immigrant n(%)	Total n(%)
Family doctor or general practitioner	Yes	14(50)	15(45.5)	48(65)	77(57)
	No	14(50)	18(54.5)	26(35)	58(43)
Emergency department	Yes	12(75)	12(80)	24(73)	48(75)
	No	4(25)	3(20)	9(27)	16(25)
Walk-in clinic/medical centre	Yes	6(50)	16(73)	42(65)	64(65)
	No	6(50)	6(27)	23(35)	35(35)
Specialist	Yes	7(54)	8(73)	19(83)	34(72)
	No	6(46)	3(27)	4(17)	13(28)
Mental health specialist	Yes	10(71)	5(62.5)	16(80)	31(74)
	No	4(29)	3(37.5)	4(20)	11(26)
Certified counsellor	Yes	10(77)	11(73)	28(76)	49(75)
	No	3(23)	4(23)	9(24)	16(25)
Public health nurse	Yes	3(60)	2(67)	5(83)	9(64)
	No	2(40)	1(33)	1(17)	5(36)
Legal aid	Yes	6(67)	3(60)	21(64)	30(64)
	No	3(33)	2(40)	12(36)	17(36)
A lawyer (other than legal aid)	Yes	5(83)	4(80)	18(69)	27(73)
	No	1(17)	1(20)	8(31)	10(27)
Services for victims of violent crimes	Yes	3(60)	1(25)	3(75)	7(54)
(violent crimes services)	No	2(40)	3(75)	1(25)	6(46)
A crisis phone line (related to abuse)	Yes	3(75)	2(100)	2(60)	7(64)
	No	1(1)	0(0)	3(40)	4(36)
A sexual assault/rape crisis services	Yes	1(100)			1(100)
Abuse-related advocacy/counselling	Yes	3(100)	3(75)	10(83)	16(84)
	No	0(0)	1(25)	2(17)	3(16)

Drug/alcohol treatment program	Yes	4(100)	1(100)	2(100)	7(100)
	No	0(0)	0(0)	0(0)	0(0)
Childcare service	Yes	2(100)	10(100)	18(90)	30(94)
	No	0(0)	0(00)	2(10)	2(6)
Child protection service/worker	Yes	1(50)	1(33)	3(37.5)	5(38.5)
	No	1(50)	2(67)	5(62.5)	8(61.5)
Emergency housing/House services	Yes	7(100)	8(100)	17(81)	32(89)
	No	0(0)	0(0)	4(19)	4(11)
Food bank	Yes	9(82)	13(72)	28(64)	50(68.5)
	No	2(18)	5(28)	16(36)	23(31.5)
Education and employment services	Yes	14(100)	15(71)	49(84.5)	78(84)
	No	0(0)	6(29)	9(15.5)	15(16)
Transportation services	Yes	6(67)	12(86)	37(67)	55(70.5)
	No	3(33)	2(14)	18(33)	23(29.5)
Financial services	Yes	8(89)	8(80)	28(76)	44(79)
	No	1(11)	2(20)	9(24)	12(21)

Note. Scale used: A modified version of the Effectiveness in Obtaining Resources Scale (EORS: Bybee & Sullivan, 2002). A score of 0 was used to indicate no difficulty while a score of 2, 3, or 4 was recoded as 1 to indicate some experienced difficulty.
The denominator for each service that was accessed can be found under “Total”. Thus, some services such as childcare service may only be encountered and rated effective by 2 people in the mainstream, non-immigrant group, but make up 100% of the number of the encounters made by that group versus, for example, 37 people in the diverse, immigrant group in transportation services only making up 67% of the encounters made by that group.

Table 4 Access Barrier

Barrier Descriptor (Yes/No)	Mainstream, Non-immigrant n(%)	Diverse, Non-immigrant n(%)	Diverse, Immigrant n(%)	Total n(%)
1. There was no service in area	2(6)	7(17)	11(11)	20(11)
2. There was a waiting list for services I needed	18(51)	15(37)	25(25)	58(33)
3. I had problems with transportation	12(34)	17(41)	31(31)	60(34)
4. I needed childcare in order to access the service	1(3)	7(17)	20(20)	28(16)
5. I could not afford it	22(63)	23(56)	39(39)	84(48)
6. I didn't know where to go or could not get information about it *(*	8(23)	13(32)	28(28)	49(28)
7. I did not access due to cultural or religious reasons	0(0)	4(10)	8(8)	12(7)
8. I felt the service would be inadequate	4(11)	8(20)	14(14)	26(15)
9. I was too busy with personal or family responsibilities	7(20)	13(32)	23(23)	43(25)
10. I didn't get around to it/didn't bother	1(3)	11(27)	16(16)	28(16)
11. Language problems	1(3)	2(5)	6(6)	9(5)
12. I was denied access to the services I needed	5(14)	7(17)	10(10)	22(13)
13. I decided not to seek care/services	4(11)	9(22)	13(13)	26(15)
14. I was unable to leave the house because of a health/mental health problems	6(17)	9(22)	13(13)	28(16)
15. I was denied the service due to discrimination	3(6)	1(2)	6(6)	10(6)
Overall Number of Barriers	2.69(2.2)	3.86(3.0)	2.66(2.6)	--

Note. Scale used: A modified version of the Effectiveness in Obtaining Resources Scale (EORS: Bybee & Sullivan, 2002)

Table 5 Service Effectiveness

Service Effectiveness Descriptor	Effective	Mainstream, Non-immigrant n(%)	Diverse, Non-immigrant n(%)	Diverse, Immigrant n(%)	Total n(%)
Family doctor or general practitioner	Yes	28(80)	36(88)	86(87)	150(88)
	No	7(20)	5(12)	13(13)	25(12)
Emergency department	Yes	11(69)	10(67)	25(76)	46(72)
	No	5(31)	5(33)	8(24)	18(28)
Walk-in clinic/medical centre	Yes	8(67)	45(65)	71(72)	124(70)
	No	4(33)	20(35)	28(28)	52(30)
Specialist	Yes	8(62)	8(73)	20(95)	36(80)
	No	5(38)	3(27)	1(5)	9(20)
Mental health specialist	Yes	4(20)	5(71)	14(78)	23(61)
	No	9(80)	2(29)	4(22)	15(39)
Certified counsellor	Yes	8(67)	11(73)	26(81)	45(76)
	No	4(33)	4(23)	6(19)	14(24)
Public health nurse	Yes	5(100)	2(67)	4(67)	11(79)
	No	0(0)	1(33)	2(33)	3(21)
Legal aid	Yes	4(44)	3(60)	27(82)	34(72)
	No	5(56)	2(40)	6(18)	13(28)
A lawyer (other than legal aid)	Yes	5(83)	3(75)	20(80)	28(80)
	No	1(17)	1(25)	5(20)	7(20)
Services for victims of violent crimes	Yes	3(60)	2(50)	1(25)	6(46)
(violent crimes services)	No	2(40)	2(50)	3(75)	7(54)
A crisis phone line (related to abuse)	Yes	2(50)	1(50)	5(100)	8(73)
	No	2(50)	1(50)	0(0)	3(27)
A sexual assault/rape crisis services	Yes	1(100)			1(100)
Abuse-related advocacy/counselling	Yes	2(67)	2(50)	10(83)	14(74)
	No	1(33)	2(50)	2(17)	5(26)

Drug/alcohol treatment program	Yes	2(50)		0(0)	2(33)
	No	2(50)		2(100)	4(67)
Childcare service	Yes	1(100)	5(5)	15(83)	21(72)
	No	0(0)	5(50)	3(17)	8(28)
Child protection service/worker	Yes	1(50)	1(33)	7(88)	9(69)
	No	1(50)	2(67)	1(12)	4(31)
Emergency housing/House services	Yes	2(33)	2(29)	12(60)	16(48)
	No	4(67)	5(71)	8(40)	17(51)
Food bank	Yes	5(50)	13(76)	31(70)	49(69)
	No	5(50)	4(24)	13(30)	22(31)
Education and employment services	Yes	6(50)	10(50)	28(51)	44(51)
	No	6(50)	10(50)	27(49)	43(49)
Transportation services	Yes	6(67)	11(79)	43(81)	60(79)
	No	3(33)	3(21)	10(19)	16(21)
Financial services	Yes	5(50)	10(83)	29(64)	44(68)
	No	5(50)	2(17)	14(36)	31(32)

Note. Scale used: A modified version of the Effectiveness in Obtaining Resources Scale (EORS: Bybee & Sullivan, 2002)

Table 6

Comparison of Service Effectiveness Between Different Ethnic Groups

Source	*df*	*F*	*ŋ*	*p*
Between Groups	2	3.12	0.04	.046*
Within Groups	172			
Total	174			

Note. A modified version of the Effectiveness in Obtaining Resources Scale (EORS: Bybee & Sullivan, 2002) was used to obtain service effectiveness scores.
** p<.05, **p<.01*

Figure 1 Service Effectiveness Differences Scores