PREDICTORS OF SELF-ESTEEM IN ADULTS WHO ARE HOMELESS OR UNSTABLY HOUSED

by

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B.A., Simon Fraser University, 2016

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

The Faculty of Graduate and Postdoctoral Studies

(Counselling Psychology)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

April 2019

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The following individuals certify that they have read, and recommend to the Faculty of Graduate and Postdoctoral Studies for acceptance, a thesis/dissertation entitled:

Predictors of self-esteem in adults who are homeless or unstably housed

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Abstract

The adverse conditions associated with living with no fixed address give rise to many physical and mental health issues. There is a rich history of research on homelessness that focuses on related health deficits. Emerging positive psychological literature has illuminated the importance of identifying the personal strengths and potentialities of individuals who are homeless. Self-esteem is a strength that has been extensively researched in positive psychology and has been characterized as a causal force underlying many of the psychological challenges facing people who are homeless. Indeed, self-esteem has been identified as a predictor or mediator/moderator in relationships with other psychological concepts critical to adults who are marginalized. That said, few studies have examined how subjective quality of life (QoL), depression, and health conditions act as predictors of self-esteem in populations that are homeless. Secondary data from the Quality of Life for Homeless and Hard-to-House Individuals (QoLHHI) study (N = 239) was analyzed using multiple regression in SPSS to determine if, and to what degree, subjective QoL, depression, and health conditions predict self-esteem in individuals who are homeless or unstably housed. Participants were recruited from shelters, single room occupancy (SRO) hotels, and other services in three Canadian cities – Vancouver, Calgary, and Ottawa. Findings reveal that the two psychological variables – subjective QoL and depression – were the only statistically significant predictors of self-esteem in the model, with Pratt’s index showing that depression was the most important variable. Possible implications for improving the lives of adults who are homeless, from a positive psychological perspective, may be helpful to a variety of professions, such as policy makers, researchers, and clinicians.
Lay Summary

Homelessness is a serious social problem. Adults who are homeless or unstably housed are often left to rely on personal resources when attempting to cope with problems related to being homeless. One such personal resource is self-esteem, which is associated with abilities needed to rise above daily challenges. Despite self-esteem being one of the most researched concepts in psychology, little work has focused on what predicts it. Thus, the aim of this study was to uncover variables associated with levels of self-esteem among adults who are homeless. Findings from the current research show that well-being variables – subjective quality of life (QoL) and, most importantly, depression – explained levels of self-esteem, over and above demographic variables and total number of health conditions. For counsellors and clinicians who work with people who are homeless, this study reveals the importance of exploring factors that are associated with self-esteem, such as subjective QoL and depression.
Preface

This thesis makes use of data collected from the Quality of Life for Homeless and Hard-to-House Individuals (QoLHHI) study for which Dr. Anita Hubley was the principal investigator, an observational cohort of adults who were homeless or unstably housed in Vancouver, Calgary, and Ottawa, Canada.

All work contained within was approved by the University of British Columbia's Behavioural Research Ethics Board (Certificate No. H09-02953), the University of Calgary's Conjoint Faculties Research Ethics Board (Certificate No. 6328), and the Royal Ottawa Health Care Group's Research Ethics Board (Certificate No. 2009039), under the project title "Quality of Life in Homeless and Hard-to-House Individuals (QoLHHI) Health and Living Conditions Impact and Overall MDT Satisfaction Scales: Validation Evidence from Three Canadian Cities." No direct text from previously published or collaborative articles was used.

The statistical analyses, as described in the Method section, were informed by consultations with Dr. Amery Wu.

The predictor variable of subjective quality of life (QoL), as measured by the Quality of Life for Homeless and Hard-to-House Individuals Quality of Life Satisfaction Scale: Short Version 1 (QoLHHI-QOLSAT), was designed by Dr. Anita Hubley.

I was primarily responsible for project conceptualization and manuscript composition. Dr. Anita Hubley contributed heavily to the concept formation, manuscript revisions and edits. Dr. Anita Hubley was also responsible for initial retrieval and construction of the data set, composed from scores produced by the self-report measures administered to the QoLHHI cohort.
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The original study was supported by a Research Alliance for Canadian Homelessness, Housing, and Health (REACH$^3$) grant awarded to Dr. Anita Hubley, Dr. Susan Farrell, Prof. Bruce MacLaurin, Wendy Muckle, Alina Tanasescu, Anne Gadermann, and Lara Russell. This grant was made available thanks to an Interdisciplinary Capacity Enhancement Grant on Homelessness, Housing and Health (HOA-80066) awarded to Drs. Stephen Hwang, Tim Aubry, Anita Palepu, Anita Hubley, James Dunn, Jeffrey Hoch, J. David Hulchanski, Bruce MacLaurin, Elise Roy, Jeffrey Turnbull, and Catherine Worthington.

I would like to take this opportunity to express my gratitude to the people who have made the present study possible. First, I thank my primary supervisor Dr. Anita Hubley, who was instrumental in the crafting of this thesis, always empowering me, and showing me exemplary kindness and generosity every step of the way.

A special thank you goes to my thesis committee member Dr. Amery Wu, for guiding me and opening my mind to research possibilities with patience, humility, and a sense of humour.

Thank you to Dr. Marla Buchanan for joining the committee and providing valuable support and inspiration during my practicum experience.

I thank William Lee for assisting me with technical advice and the provision of professional opportunities.

Last but not least, I am completely grateful to my partner Kim, for her unconditional love, strength, and stability; and for the support from my parents Craig and Jan, my cousins Jack and Paulla, and my chosen family members Tom, Heather Kai, and Bill.
Chapter 1: Introduction

Homelessness

Homelessness\(^1\) is defined as not having a permanent residence or being “at imminent risk of losing [housing] in the next 14 days” (Spinelli et al., 2017, p. 88). According to Spinelli, individuals who are homeless will sleep outdoors, at emergency shelters, and/or in spaces not intended for living. Approximately 600,000 North Americans, or 1% of the population, are homeless. The average age of adults who are homeless is rising; currently 50% are more than 50 years old. Both physical and mental health issues are more prevalent among adults who are homeless when compared to adults 15 to 20 years older who are domiciled (Spinelli et al.). Health issues, including substance use, among adults who are homeless result in an overwhelming number of fatalities each year (e.g., the overdose crisis has been declared a public health emergency in British Columbia; Province of British Columbia, 2016), while accounting for 40% of Emergency Department (ED) use and an overrepresentation of this group in the access of other health care services (Ku, 2014). Research has shown that housing instability is associated with not having a regular source of health care, not attending to health issues in a timely manner, delayed prescription filling, and increased hospitalizations (Mitchell, León, Byrne, Lin, & Bharel, 2017). Indeed, providing health care to adults who are homeless is costly.

What causes homelessness? Research has attempted to answer this question for a long time, providing many possible psychosocial answers, such as: economic problems, difficulties

\(^1\) “Homeless” is the term predominantly used to describe individuals who live in a shelter, public place, abandoned building, or other places not intended for human habitation, or were temporarily sleeping at someone else's place. “Unstably housed” describes an individual who has either been homeless or has experienced two or more moves in the past 12 months. Other preferred terms include: sleeping rough, living on the street, no fixed address, and couch surfing. We acknowledge and respect individuals who are unhoused and do not choose to use “homeless” to describe their living situation, however we have decided to use it for the sake of consistency with the broader literature.
with interpersonal relationships, psychiatric issues, substance use (including alcohol), mobility challenges, ethnic inequality, minority oppression, unemployment, lower educational background, lack of affordable housing, social injustice, unrealistic future expectations, emotion regulation difficulties, and structural violence (e.g., First, Roth, & Arewa, 1988; Nishio, 2017; Vázquez, Panadero, & Zúñiga, 2017; Visetpricha, 2016). These causal attributions of homelessness “may affect both the design and acceptance of public policies aimed at improving the situation of people who are homeless, and the strategies that they decide to adopt in order to cope with their situation” (Vázquez et al., 2017, p. 1). Given that homelessness continues to be on the rise (Watson, Sörqvist, Keim, & Ramanathan, 2018), it may be beneficial to enrich and augment research on the psychosocial deficits of adults who are homeless with a new positive approach that may act as a catalyst for change.

**Self-esteem and positive psychology**

The goal of positive psychology is “to catalyze a change in psychology from a preoccupation only with repairing the worst things in life to also building the best qualities in life” (Snyder & Lopez, 2005, p. 3). What personal qualities do adults who are homeless possess that may help them not only survive but perhaps improve their existence? For someone who is homeless, “Survival involves… thinking positively about their own lives” (Visetpricha, 2016, p. 1), and it is reasonable to believe their own positive outlook may lead to phenomenological improvements. Research has revealed that the positive psychological construct of self-esteem – feelings or attitudes of self-worth – is associated with the aforementioned psychosocial aspects that may impact adult homelessness, such as interpersonal functioning (Huprich, Lengu, & Evich, 2016), emotional intelligence (Cheung, Cheung, & Hue, 2015), psychological health (Mirzairad, Haydari, Pasha, Ehteshamzadeh, & Makvandi, 2017), employment eligibility (Hall,
Gradt, Goetz, & Musu-Gillette, 2011), racial and ethnic disparity (Wakeel, Witt, Wisk, Lu, & Chao, 2014), intimate partner violence history (Matheson et al., 2015), and substance use (Ersöğütçu & Karakaş, 2016). The observed relationships between self-esteem and these factors suggest that positive feelings and attitudes of self-worth may help the adult who is homeless cope with challenges while working toward obtaining stable housing and improving other aspects of their life.

**Problem statement**

While self-esteem has been shown to be related to various outcome variables (e.g., social assistance, teen pregnancy, substance use disorders (SUDs), mental and physical health conditions, psychosocial functioning; e.g., Ahmad et al., 2017; Avila, 2015; Baumeister & Campbell, 1999; Carroll & Coetzer, 2011; Heywood & Lyons, 2017; Mruk, 2013; Orth, Robins, & Widaman, 2012; Ryff & Singer, 1998; Smelser, 1989), very little research has examined psychosocial predictors of self-esteem, especially among adults who are homeless. Examining what predicts self-esteem in this population will address a gap in the literature and may contribute to the body of knowledge informing public policy around housing and avenues of therapeutic support for the adult who is homeless.
Chapter 2: Review of the Literature

The emphasis on deficits in psychology and homelessness

The psychology and health fields have paid great attention to the mental deficits of adults who are homeless. For almost four decades, researchers have examined mental illness among low income populations, with research suggesting that 70% of individuals who are homeless are afflicted with some form of mental health issue or neurological disorder (Vila-Rodriguez et al., 2013). This is possibly motivated by a belief that people with mental health issues are particularly susceptible to homelessness (Nelson, Aubry, & Lafrance, 2007) and/or that science may help in the prevention of homelessness and the reduction of adverse health outcomes (e.g., violence, infectious diseases such as tuberculosis) for those who are homeless (Susser et al., 1997). The most prevalent mental disorders diagnosed within homeless populations include: (a) schizophrenia and other psychotic illnesses, (b) personality disorders, (c) SUDs, and, (d) major depression (Fazel, Khosla, Doll, & Geddes, 2008).

The most common psychotic illness affecting adults who are homeless is schizophrenia. People with schizophrenia have a 25-50% chance they will become homeless, which is approximately 10 to 20 times higher a risk than in the general population (Burra, Hwang, Rourke, & Stergiopoulos, 2012). Some literature suggests that 33-50% of North Americans who are homeless have a diagnosis of schizophrenia, with female-identified individuals who are homeless being twice as likely to have the diagnosis (Folsom & Jeste, 2002). Psychologists have been unable to identify a causal link between homelessness and schizophrenia; however, psychosis appears to be a common factor among many individuals who are marginally housed (Holmes et al., 2017).
Psychosis is overrepresented in adults who are homeless. Research indicates that 47% of individuals who are homeless and unstably housed suffer from psychosis induced by severe mental health issues and/or substance use (Vila-Rodriguez et al., 2013). The intersectionality of homelessness and psychotic symptoms has been examined in many adult groups, including military veterans (Boyd, Hayward, Bassett, & Hoff, 2016), people with criminal and/or incarceration history (Tsai & Rosenheck, 2016), people who have immigrated to North America (Dealberto, Middlebro, & Farrell, 2011), urban centre dwellers (Spicer, Smith, Conroy, Flatau, & Burns, 2015), individuals who use amphetamines (Medhus et al., 2015), refugees who have escaped torture (Looi & Drew, 1996), the elderly (Cohen, Teresi, & Holmes, 1988), emergency room patients (Drake et al., 2011), people who engage in garbage binning (Royse, 1987), mothers (Hoffman & Rosenheck, 2001), victims of physical violence (Chapple et al., 2004; Walsh et al., 2003), survivors of sexual assault (Goodman, Rosenberg, Mueser, & Drake, 1997), stranger homicide offenders (Nielssen, 2011), and individuals charged with arson (Leong, 1992). Indeed, 13% of adults who are homeless have been diagnosed with a severe psychotic mental illness. Of adults who are homeless, 23% are diagnosed with personality disorders (PDs) (Spicer et al.).

Regardless of the seemingly high prevalence rates of PDs in adult homeless populations, some would argue it is a neglected and often misunderstood topic: “The absence of reliable and valid personality disorder diagnoses represents an important gap in the literature,” with only “a small number of studies [recognizing] the existence of specific personality disorders among people who are homeless, including antisocial, schizoid, dependent, and borderline” (Connolly, Cobb-Richardson, & Ball, 2008, p. 574). Antisocial personality disorder (APD), as it appears in adult homeless populations, has been associated with dating violence and sexual victimization
(Tyler & Melander, 2012), methamphetamine use (Fletcher & Reback, 2013), African American gang involvement (Harper, Davidson, & Hosek, 2008), problem gambling (Nower, Eyrich-Garg, Pollio, & North, 2015), sex work (Cronley, Cimino, Hohn, Davis, & Madden, 2016), and coping strategies around income generation (Ferguson, Bender, & Thompson, 2015). Alarmingly, considerably less research has focused on schizoid personality disorder (SPD) among adults who are less advantaged, with the exception of a few studies that have looked at how aspects (e.g., chronicity) of homelessness may affect schizoid traits (e.g., apathy, interpersonal deficits, chronic lack of emotion; Connolly, Cobb-Richardson, & Ball; Rouff, 2008). The paucity of such research in the literature may be due to the fact that PDs are difficult to research in homeless populations because they are often comorbid with other psychological issues. For instance, some adults who are homeless have presented with symptoms of borderline personality disorder (BPD) in addition to other severe mental diagnoses, such as post-traumatic stress disorder (PTSD) and substance use disorders (SUDs), which add to clinical complications (Whitbeck, Armenta, & Welch-Lazoritz, 2015).

There is, however, a vast and growing body of research that has examined SUDs and homelessness. Meta-analytic research suggests SUDs are relatively common in adults who are homeless, with prevalence estimates of 38% for alcohol dependence and 24% for drug dependence (Fazel, Khosla, Doll, & Geddes, 2008). Furthermore, when controlling for SUDs, research results reveal no elevated risk for mental illness among adults who are homeless compared to the general population, suggesting that the increased risk of mental health issues related to homelessness may be directly tied to substance use (North, 2015). An EBSCO/PsycINFO database search returned 3,062 articles on the subject of homelessness and substance use, exploring topics such as hepatitis C virus (HCV) and human immunodeficiency
virus (HIV) incidence among people who inject drugs (Kori, Roth, Lozada, Vera, & Brouwer, 2014; Rhodes & Treloar, 2008); physical and sexual abuse (Spinelli et al., 2017); intersection with other psychiatric issues such as schizophrenia and bipolar disorder (Maremmani et al., 2017); mood symptoms (Romero, 2017); veteran affairs (VA) disability compensation (Tsai & Rosenheck, 2015); history of child abuse and street victimization (Tyler & Melander, 2015); social networks among sex work clients (Song & Wenzel, 2015); smoking cessation (Reitzel, Nguyen, Eischen, Thomas, & Okuyemi, 2014); religious participation (Torchalla, Li, Strehlau, Linden, & Krausz, 2014); predictors of SUDs, such as traumatic events involved with residential school history, and mental and physical health conditions (DeBoer et al., 2015); racial disparities, such as living situations, socioeconomic status (SES), education, and health service access (Bae, 2015); history of foster care (Patterson, Moniruzzaman, & Somers, 2015); violence and rape victimization (Meinbresse et al., 2014); and trauma, criminalization, and the justice system (Westcott, 2015).

It would seem to make sense that substance use and depressive symptoms are related among adults who are homeless; while some research supports this (Dietz, 2009; Koegel, Burnam, & Farr, 1988), there is still a scarcity of research on this topic (Spinelli et al., 2017). Individuals diagnosed with SUDs may develop depression from adverse outcomes associated with drug use, such as hallucinations, disorganization, and/or aggressive behaviour. However, this relationship is possibly bidirectional, in the sense that adults who are homeless with depression may be more likely to develop SUDs (e.g., as a way of coping) than individuals in the general population (Spinelli et al.).

Major depression also represents the majority of non-substance-related mental illness (North, 2015), impacting 11% of adults who are homeless (Spicer, Smith, Conroy, Flatau, &
Burns, 2015). Depressive symptoms among adult homeless populations have been associated with suicidality (Coohey, Easton, Kong, & Bockenstedt, 2015; Okamura, Ito, Morikawa, & Awata, 2014), childhood adversities (Lee et al., 2017), discrimination of racial and sexual identity (Gattis & Larson, 2016), caregiver violence (McGuire-Schwartz, Small, Parker, Kim, & McKay, 2015), food insecurity for individuals living with HIV (Palar et al., 2015), new mothers during the postpartum year (Curtis, Corman, Noonan, & Reichman, 2014), intimate partner violence (Kennedy, Bybee, & Greeson, 2015), literacy (Holland, 2014), neurocognitive impairment (Stergiopoulos et al., 2015), decayed and missing teeth and oral health factors (Coles et al., 2011), engagement in survival sex (Purser, Mowbray, & O'Shields, 2017), traumatic brain injury (Topolovec-Vranic et al., 2017), and the internalization of stressful childhood events (Utržan, Piehler, Gewirtz, & August, 2017).

Are depressive symptoms impacted by homelessness? Due to the stressors associated with housing instability, it should be of no surprise that depressive symptoms do, in fact, decrease when an adult who is homeless finds safe and stable housing (Brown et al., 2015). However, the reduction of depressive symptoms for a newly-housed individual tend to be moderate at best. One explanation for this lack of significant improvement in depression may involve the possibility that the executive functioning of an individual who is homeless is at an optimal level because of the social structure and interaction on the street (Brown et al.). In other words, research suggests that, when an individual who is homeless becomes domiciled, they may experience deficits in executive functioning because they will spend more time alone. Importantly, these deficits may affect the individual’s capability to complete daily activities (Cahn-Weiner, Malloy, Boyle, Marran, & Salloway, 2000).
We have a rich history of researching homelessness through a negative lens. For instance, as discussed above, the field chooses to use the label, “depression,” rather than allowing individuals to feel sad and experience mood swings. Thus, the individual is confined to a diagnosis of depression, which may not be helpful and may actually exacerbate depressive symptomatology (C. Shelley, personal communication, March 14, 2017). Once a diagnosis has been made, “[Psychologists] tend to selectively… overattend to subtle features that appear to confirm an initial diagnosis” (Yalom, 2002, p. 5). However, some psychologists argue that the pathologization of mental phenomena is only half of the story, and that the other half involves addressing the potentialities (Sutich & Vich, 1969) and personal strengths of adults who are homeless. Strengths-based psychology, or positive psychology – “an umbrella term for the [emerging] study of positive emotions, positive character traits, and enabling institutions” (Seligman, Steen, Park, & Peterson, 2005, p. 410, as cited in Mruk, 2013, p. 229) – completes the story and does not allow its focus to be limited by the constraints of the medical model. As researchers, we need to engage in work that supports an ideology of a therapeutic balance because mental illness would be meaningless without personal strengths. In other words, if an individual possesses personal strengths, it does not necessarily mean that they have an absence of psychological challenges, and/or vice versa (R. Owens, personal communication, July 20, 2017). Thus, psychology needs to attend to both strengths and deficits, with the goal of establishing a wholesome and positive definition of mental health.

It is important to keep in mind that, even in the absence of diagnosable mental illness, positive psychological research can still be helpful in understanding the adult who is homeless. Although the majority of the general population reports being happy, less than 20% of North Americans consider themselves to be flourishing (Keyes, 2002). The remainder could be
considered *languishing*, “[f]eeling as if they are ‘stuck in a rut’ or ‘wanting more’—yet are not diagnosable with a mental disorder” (Sin & Lyubomirsky, 2009, p. 468). It is reasonable to believe that the rate of languishing is higher among adults who are homeless or unstably housed and may both feel stuck and desire more from life.

**Positive psychology and homelessness**

One of the most important constructs to the field of positive psychology is well-being. Similar to other positive psychological constructs, well-being may be seen by some as both the absence of mental illness (such as depression) and the presence of positive psychological resources (i.e., strengths, potentialities; Sin & Lyubomirsky, 2009; Sutich & Vich, 1969). These positive resources can be categorized into two dimensions: (a) *hedonic*, which includes life satisfaction, positive affect, and happiness, and, (b) *eudaimonic*, comprising self-acceptance, positive relations, autonomy, life purpose, and personal growth (Diener, 1984; Mruk, 2013; Ryff, 1989). In their ground-breaking study, Seligman, Steen, Park, and Peterson (2005) produced results suggesting that positive psychological therapy increases well-being, while decreasing depressive symptoms. The therapy comprised five interventions: “One of the exercises focused on building gratitude, two focused on increasing awareness of what is most positive about oneself, and two focused on identifying strengths of character” (Seligman et al., p. 878). From a positive psychological perspective, these findings are important because “happy people are healthier, more successful, and more socially engaged, and the causal direction runs both ways” (Seligman et al., p. 877).

Meta-analytic research produced results confirming the belief that, on average, positive psychological interventions increase well-being (49 independent studies, \( N = 4235, r = -.31 \) to .84, “with 96% of effect sizes in the predicted, positive direction”; Sin & Lyubomirsky, 2009, p. 468). It is reasonable to believe that the rate of languishing is higher among adults who are homeless or unstably housed and may both feel stuck and desire more from life.
477) while ameliorating depressive symptoms (25 independent studies, $N=1812$, $r = -.28$ to .81, “with 80% of effect sizes in favour of [positive psychological interventions]”; Sin & Lyubomirsky, p. 477). These findings were supported with similar meta-analytic results across 39 studies (Bolier et al., 2013), suggesting that positive psychological interventions enhance both subjective well-being (i.e., “cognitive and/or affective appraisal of one’s own life as a whole”; $r = .34$; p. 2) and psychological well-being (i.e., “optimal functioning of the individual”; $r = .20$; p. 2), while reducing depression ($r = .23$). Importantly, the meta-analytic results revealed no significant subgroup (i.e., subjective, psychological) differences when examining associations between well-being and depression. As we can see, well-being is an integral aspect of mental health; however, individuals who do not have depression may also be unhappy and demonstrate maladaptive behavior whereas people who are diagnosed with depression may be happy and lead a functional life (Bolier et al.).

Well-being has been examined in samples of adults who are homeless. Well-being is associated with group membership (i.e., social support and social connectedness) in the context of mental health among adults who are homeless (Walter, Jetten, Dingle, Parsell, & Johnstone, 2016). Specifically, research suggests that the person who is homeless may not develop a meaningful sense of self due to a lack of group membership and a lack of psychological resources that come with social connectedness, such as meaning, purpose, and belonging. Thus, the individual who is homeless experiences a decrease in well-being because of a compromised sense of self and an absence of helpful and associated resources (Walter et al.). Furthermore, adults who are homeless are more likely to be subjected to possible “detrimental effects of social connectedness… when contact with others is a source of conflict, stress, and strain” (p. 359). Well-being is negatively impacted by these homeless stressors, and, to make matters worse, the
individual does not have social support to rely on when facing any additional problems related to marginalization and isolation. All that being said, research results vary on the degree of isolation experienced by adults who are homeless (Pedersen, Andersen, & Curtis, 2012) and it may be worthwhile to take other related factors into consideration.

Research has uncovered possible associations between homeless chronicity and well-being. Adults who are chronically homeless represent 10% of homelessness in North America, showing higher levels of psychological, medical, and substance use issues (Kuhn & Culhane, 1998). Mental health-related quality of life (HRQoL; i.e., psychological well-being) was found to be associated with homeless chronicity, “[Underscoring] the importance of chronic homelessness in accentuating the burden of mental health-related problems and social distress” (Kertesz et al., 2005, p. 580). Indeed, homeless chronicity may be yet another factor contributing to the complexity of the relationship between well-being and homelessness. Attempts have been made to simplify this complex relationship by categorizing various associated factors impacting well-being among adults who are homeless into three groups: (a) supportive housing, (b) emotional support, and (c) healthcare access (Ito, Morikawa, Okamura, Shimokado, & Awata, 2014).

Furthermore, decreased subjective well-being has been characterized across four factors, using their perception of their own poor health, lack of emotional support, living conditions under a roofless dwelling, and pain (Ito et al., 2014). The decreased psychological well-being of the adult who is homeless involves deficits in optimal functioning (i.e., reduced hope, mastery, and purpose in life; Bolier et al., 2013; Luthans, 2007; Ryff, 1989). Optimal functioning is critical to the positive psychological concept of well-being, as it underlies “an interest in finding out what works, what is right, and what is improving” (Sheldon & King, 2001, as cited in Luthans, p. 541). Indeed, optimal functioning is an important concept overlapping many areas of positive
psychology, providing one (of many) reasons to focus on “new positive forces now at work in the field [of positive psychology] that are creating exciting possibilities” (Mruk, 2013, p. 7).

Specifically, research has revealed a meaningful relationship between optimal functioning and self-esteem (Kernis, 2003; Mruk, 2013). Optimal functioning may underlie high self-esteem. That is, the ability to “successfully [deal] with life’s challenges” (Kernis, p. 13) requires hope, mastery, and purpose in life (i.e., optimal functioning), likely giving rise to positive feelings of self-worth (i.e., high self-esteem). Research suggests the adaptive qualities of high self-esteem may be portrayed with yet another related construct: authenticity (Mruk, 2013). Authenticity can be conceptualized as: (a) awareness and trust of one’s own feelings, desires, and thought processes, (b) unbiased cognitive processing of information relevant to the self, (c) actions holding true to one’s values and needs, and, (d) genuineness in close relationships (Kernis). Ultimately, authenticity reflects an individual’s unimpeded engagement with daily activities from the position of the person’s true self.

**Self-esteem and positive psychology**

Self-esteem may be viewed as a positive psychological construct (Mruk, 2013). The present study uses a global (versus situational; Harter, 1999) and unidimensional definition of self-esteem, as originally operationalized by Rosenberg (1965). Indeed, the Rosenberg Self-Esteem Scale (RSES) is still, to this day, the most popular measure of self-esteem used in psychological research (Mruk). Rosenberg’s definition of self-esteem focuses on an individual’s feelings or attitudes of self-worth, or worthiness, “[reflecting and affecting] their ongoing transactions with their environment and the people they encounter in it” (Kernis, 2003, p. 1). Thus, a worthiness characterization of self-esteem has been viewed through a sociological lens, as it relates to cognitive concepts of power, agency, and confidence in a socially embedded
context (Smelser, 1989; Mruk). In the *Handbook of Positive Psychology* (Hewitt, 2002), the social conceptualization of self-worth has also been tied in with the idea of personal strengths in positive psychology: “[Self-esteem is defined] as a socially constructed emotion… a reflexive emotion that has developed over time in social processes of invention” (p. 139). In other words, concepts of self-worth are strengths “subject to social control” (p. 139) in the way that people develop feelings of self-worth through interaction with others in social situations. Basing the concept of self-esteem in a socially constructed emotion of self-worth allows positive psychologists to take cultural variations into consideration (e.g., self-esteem was rated one of the most valued basic human needs in both individualistic and collectivist societies; Mruk; Sheldon, Elliot, Kim, & Kasser, 2001).

Self-esteem involves both perception and emotion; our feelings about our self-worth are based on our perceptions of our own identity in a social context (Berezin, 2010). From this perspective, Rosenberg (1965) defined self-esteem as a particular attitude. That is, self-esteem is the affect-based psychological process of attitude formation; an individual will cognitively evaluate experientially-based emotional information when forming an attitude about their own self-worth. This evaluative mechanism of “identity verification” (Burke & Stet, 2009, as cited in Berezin, p. 220) is a central and dynamic aspect of the self, involving both conscious and nonconscious processing that ultimately regulates our behaviour (Epstein, 1985). In other words, self-esteem is an active part of an ongoing intrapsychic phenomenon that is central to the self in the way that it contributes to our identity and actions, and protects our feelings of worth (Marshall et al., 2015).

Nonconscious self-esteem operates in a complex system that enables us to adapt to changes in reality. This behavioural mechanism accommodates personal growth as we respond to
our own existence. Thus, nonconscious self-esteem serves as the preconscious, affective, and fundamental basis of an individual’s own reinforcement and motivation, giving rise to risk-taking behaviour essential for change (Epstein, 1985). Nonconscious and conscious self-esteem function simultaneously, yet are dissociated from each other (Kernis, 2003). Anxiety research results underlying this distinction suggest nonconscious self-esteem is related to anxious nonverbal behaviour whereas conscious self-esteem is connected to self-reported anxiety (Spalding & Hardin, 1999). Additionally, multicultural research reveals that nonconscious self-esteem is consistent with prior cultural socialization, as opposed to a connection between conscious self-esteem and current cultural context (Hetts, Sakuma, & Pelham, 1999).

Conversely, similar research produced results suggesting associations between nonconscious self-esteem and affect are explained by genetics rather than familial socialization (Stieger, Kandler, Tran, Pietschnig, & Voracek, 2017), revealing a possible gap in the literature. Furthermore, research on response biases and self-esteem confirm that “[nonconscious] self-esteem phenomena are driven by self-evaluations that are activated automatically and without conscious self-reflection” (Koole, Dijksterhuis, & van Knippenberg, 2001, p. 669). Given that the RSES uses self-report of self-esteem, the present study focuses on conscious self-esteem as expressed and measured linguistically (Kernis; Rosenberg, 1965).

Self-esteem also functions on a conscious level; conscious self-esteem is cognitive and rational (Kernis, 2003; Mruk, 2013). Self-esteem is tied into executive function and capacity for reason, choice, and responsibility (Branden, 2001), according to principles of logic and language (Kernis). Thus, self-esteem is a basic psychological need, possibly driving higher order processing as we interact with the world. Simply put, self-esteem can “reside in the [neurocognitive] system, reflecting feelings of self-worth that people are conscious of
processing” (Kernis, p. 4). Based in early psychological principles, in which self-esteem was considered to be connected to higher order functions and developmental decision-making enacted during formation of the self (Adler, 1927/2013), recent research has focused on the interaction between executive resources and self-esteem in times of motivational conflict (Cavallo, Holmes, Fitzsimons, Murray, & Wood, 2012). That is, executive control plays a role alongside self-esteem for the strategic selection of goals that are congruent with overarching motivations. Self-esteem has also been connected to other cognitive processes, such as memory (Jones, Norville, & Wright, 2017). Research has revealed that self-esteem predicts increased memory phenomenology (i.e., characterized across four constructs: presence of imagery, affective impact, physical sensations, and belief of the event as it happened) with faster retrieval rates for autobiographical memories (Jones et al., 2017).

Other functional characteristics of self-esteem are noteworthy. First of all, self-esteem is conceptualized as both a state and a trait (Mruk, 2013). State self-esteem plays a role in interpersonal relationships as a way of monitoring (i.e., the sociometer) and responding to emotional cues about one’s own inclusion (and possibly exclusion) in social situations. That is, state self-esteem will react to emotions, alert the individual to possible negative affective outcomes, and provide signals for appropriate consequential social behavior (Leary & Downs, 1995; Mruk). Trait self-esteem seems to be more causal in nature. For example, trait self-esteem will interact together with cognitions of death as a mechanism of psychological change against hopelessness (as viewed from a terror management perspective; Wisman & Heflick, 2016). Indeed, a trait versus state distinction informs discussions about the stability of self-esteem:

Self-esteem appears to have a significant stable core. This core may represent the essence of how people evaluate themselves. This core is modeled as independent of previous self-
esteem–related perceptions and also independent of occasion-specific conditions or experiences. It is most likely that this time-consistent part is largely characterized by developmental constants, such as a person’s genotype or increasingly stable life circumstances. (Wagner, Lüdtke, & Trautwein, 2016)

However, other research results suggest self-esteem can be unstable. Instability may depend on how developed and integrated an individual’s self-concept is with their daily activities. These ideas are supported by an examination of adaptive behavioural strategies associated with self-protection (i.e., maintenance and stabilization of the self; Leary & Downs) and self-enhancement (i.e., “motive to maintain a positive image of oneself” Leary, 2004, p. 458; also Greenier, Kernis, & Waschull, 1995). Furthermore, research results suggest that, in the context of self-protection, self-esteem shifts can occur gradually over time through an accumulation of experiential factors or by a sudden behavioural shift of intentional confrontation with challenging issues (Bednar, Wells, & Peterson, 1995).

As mentioned above, self-esteem is connected to personal behavioural regulation. Most psychologists view self-esteem as a basic need and causal force underlying self-regulation (Mruk, 2013). Self-regulation refers to psychological processes such as management of the self, identity formation, associated personal behaviour, and stress coping tactics (Baumeister, Campbell, Krueger, & Vohs, 2003; Leary & Downs, 1995; Mruk). That said, self-esteem also governs social behavior as feelings of self-worth help regulate interpersonal functionality (Leary & Downs). Self-esteem provides guidance for optimal navigation through complex social lives. In other words, self-esteem is at the emotional root of interpersonal processes, such as relationship formation and maintenance (Leary & Downs), in the context of our own identity.
Self-esteem is the key to understanding our emotions and how they motivate us to take personal and social risks.

Self-esteem regulates risk-taking behaviour. Some researchers (Baumeister, 1982; Maslow, 1954; Mruk, 2013) believe that self-esteem is less present-oriented and more developmental, in the sense that it is associated with the regulation of future risk taking. The expectation of future interaction has been shown to mediate the relationship between self-esteem and self-presentation (Baumeister). Research results suggest that individuals with high self-esteem will use compensatory self-enhancement tactics because they “feel confident that these statements will not be disconfirmed by subsequent events” (p. 44). In summary, self-esteem connects to future behaviour in two ways: (a) motivation to maintain a stable sense of self (i.e., self-consistency, self-protection), and, (b) maximization of potential (i.e., self-expansion, self-enhancement).

Historically, future-oriented motivational self-esteem was tied to the humanistic tradition, which (arguably) provided a basis for positive psychology. From a humanistic perspective, self-esteem clearly functions as a determinative factor in an individual’s journey toward self-actualization and self-expansion through the resolution of intentionality, autonomy, and consciousness (Maslow, 1954). That is, self-esteem helps determine whether we overcome barriers to expand the self and reach our potential or we settle for inauthenticity through a process of self-protection. Furthermore, humanistic ideology informs positive psychology with the explanation that the development and maintenance of self-esteem relies on human warmth and connection, encouragement, support, and mutual respect (Mruk, 2013). Indeed, the present study on self-esteem follows in the new tradition of positive psychology, in which, “psychological well-being gravitates toward researching the good life in an Aristotelian sense of
the term” (Baumgardner & Crothers, 2009, as cited in Mruk, p. 231). The ‘good life’ can be interpreted as eudaimonic or flourishing and comprising human goods, such as: friendship, belonging, justice, meaning, agency, pleasure, health, and a good home life (Fowers, Richardson, & Slife, 2017).

**Self-esteem and homelessness**

Self-esteem issues may be connected to homelessness. In the 1980s, a group of American politicians and researchers produced results suggesting that low self-esteem is associated with SUDs, teen pregnancy, and social assistance (i.e., the self-esteem movement; Baumeister & Campbell, 1999; Mruk, 2013; Smelser, 1989). This information was disseminated to the public through popular media, framed as a major social crisis, with the caveat: “The well-being of society depends on the well-being of its citizenry” (Smelser, p. 1, as cited in Mruk, 2013, p. 4). Clearly, this perspective could be viewed as an example of moral panic; however, it is not unreasonable to believe that feelings of self-worth may impact (or be impacted by) homelessness. Research has revealed that self-esteem is implicated in an individual’s capability to manage life’s challenges and failures, such as overcoming barriers and losses (Epstein, 1979). That is, high self-esteem may provide an individual with increases in positive emotion, feelings of connection and integration, spontaneity, and openness to new experiences – factors that contribute to an individual’s ability to deal with adversity. Additionally, self-neglect can rise from a lack of acceptance of our true self, a lack of personal responsibility for the choices we make, dishonesty and incongruence with our self, and perceived deficits in our own integrity; aspects of self-deception are associated with the dynamic nature of unhealthy self-esteem (Branden, 2004). Research has shown that self-neglect of personal and household hygiene is related to compromised health and homelessness (Lauder Roxburgh, Harris, & Law, 2009). All that being
said, the directionality of relationships between self-esteem and health-related aspects of homelessness is controversial.

**Predictors of self-esteem**

An EBSCO/PsycINFO search using the terms “predict* self-esteem” returned 199 journal articles and dissertations. However, only 71 of these journal articles and dissertations identify psychosocial predictors of adult self-esteem with some overlap of identified variables. This selection of literature suggests that self-esteem in adults is predicted by socioeconomic status (Rosenberg & Pearlin, 1978), income and neighbourhood-level inequality (Osborne, Sibley, & Sengupta, 2015), visible disability identification (Nario-Redmond, Noel, & Fern, 2013), gender conformity (Good & Sanchez, 2010), psychological distress and interpersonal problems (Bjørkvik, Biringer, Eikeland, & Nielsen, 2008), negative self-statements (Philpot, Holliman, & Madonna, 1995), within-person changes in perceptions of autonomy (Cowan & Taylor, 2015), low narcissism (Foster, Shiverdecker, & Turner, 2016), high self-efficacy in romantic relationships (Weisskirch, 2017), occupying the role of a paid worker (Baruch & Barnett, 1986), religiosity (Sterk, Klein, & Elifson, 2004), acceptance of loss after adult-onset disability (Ferrin, 2003), self-evaluation of singing ability (Chong, 2001), paranoia (Udachina, Varese, Oorschot, Myin-Germeys, & Bentall, 2012), racial discrimination (Chen & Tryon, 2012), and use of social network sites (Liu, Niu, Fan, & Zhou, 2017). Of importance to adults who are homeless, very little research has examined physical and mental health constructs as predictors of self-esteem.

**Depression.** Depression and low self-esteem have been found to show a moderate negative correlation, e.g., one study reported a correlation of -.505 (p < .01) between RSES scores and scores on the Center for Epidemiologic Studies Depression Scale (CES-D) (Rizwan, Aftab, Shah, & Dharwarwala, 2012), “yet little is known about their prospective effects on each
other” (Orth, Robins, & Roberts, 2008, p. 695). Some research suggests levels of self-esteem predict depressive symptoms among adults (Cheng & Furnham, 2003; Dinger, Ehrenthal, Nikendei, & Schauenburg, 2017; Parker, Page, & Hooke, 2013; Sharma & Agarwala, 2014; Stein, Burden Leslie, & Nyamathi, 2002; Whitley & Gridley, 1993; Wickrama, Surjadi, Lorenz, Conger, & O’Neal, 2012; Xue & Li, 2007; Zoerink, 2001), while Franck and De Raedt (2007) suggest that “self-esteem instability might be more important than level of self-esteem in predicting vulnerability to depression” (p. 1531). However, even less research has produced results suggesting that depression is an antecedent of self-esteem. Philpot, Holliman, and Madonna (1995) found that depression significantly predicted self-esteem in a model that included three other variables: positive and negative self-statements, and locus of control. The scar model posits that depressive symptomatology is a causal force, gradually eroding self-esteem (Orth, Robins, & Roberts). That is, “episodes of depression may leave scars in the individual’s self-concept that progressively chip away at self-esteem over time” (p. 695), through both intrapersonal and interpersonal pathways. Based on the scar model, Rohde, Lewinsohn, and Seeley (1990) produced prospective evidence, revealing that depression can cause deficits in self-concept and related coping strategies around self-esteem. That said, other research has failed to support the scar model, citing the “cyclical nature” of depression’s association with self-esteem as a possible reason why identifying causation may be difficult (Zeiss & Lewinsohn, 1988). From a positive psychological perspective, it may be helpful to try to solve this controversy by also looking at a strength (i.e., well-being/subjective QoL) and how it may be connected to self-esteem.

**Well-being/subjective QoL.** Fifteen studies have examined self-esteem as a predictor of well-being among adults, in which, almost unanimously, a significant positive association has
been found (Awan & Sitwat, 2014; Brown, 2010; Butkovic, Brkovic, & Bratko, 2012; Butt, 2009; Geng & Zheng, 2008; Jin & Zhang, 1998; Joshanloo & Rastegar, 2007; Marsh, Trautwein, Lüdtke, Köller, & Baumert, 2006; Orth & Robins, 2014; Reid, 2004; Schimmack & Diener, 2003; Stupnisky, Perry, Renaud, & Hladkyj, 2013; Sun, 2012; Westerlund, 1996; Zhang & Xu, 2007). Only one study has examined the predictive nature of well-being on self-esteem in adults (Rodríguez-Díaz, Pérez-Marfil, & Cruz-Quintana, 2016). In a clinical intervention aimed at preventing functional dependence, researchers found that therapeutic techniques focusing on well-being/subjective QoL resulted in increased levels of self-esteem among participants aged 75 to 90 years old (n = 59). It is reasonable to believe that additional health factors may be implicated in the relationship between well-being/subjective QoL, depression, and self-esteem.

**Health conditions.** Health conditions have been found to be negatively associated with self-esteem. Research has shown that adult self-esteem is related to coronary heart disease (Marteinsdottir, Ernerudh, Jonasson, Kristenson, & Garvin, 2016), cardiovascular habituation to stressors (Brown & Creaven, 2017), control and management of asthma (Ahmad et al., 2017), emotional problems around emphysema (Scott, 1969), chronic obstructive pulmonary disease (COPD) and a capacity to cope with emotions and everyday challenges (Bonsaksen, Fagermoen, & Lerdal, 2015), acute-on-chronic liver failure (ACLF) (Duan, Kong, Zhang, & Guo, 2012), internalized stigma around hepatitis C virus (Noor, Bashir, & Earnshaw, 2016), stomach ulcers (Denga, 1987), inflammatory bowel disease (IBD) and Crohn's disease (Moreno-Jiménez, Blanco, Rodríguez-Muñoz, & Hernández, 2007), rheumatoid arthritis (Benka et al., 2016), HIV/AIDS (Heywood & Lyons, 2017), tuberculosis (Feng & Xu, 2015), epilepsy before and after pregnancy (Reiter et al., 2016), traumatic brain injury (TBI) (Carroll, & Coetzer, 2011), cancer (Galica, 2018), sexual dysfunction and diabetes (Yıldız & Bölükaş, 2015), type 1
diabetes (Luyckx, Rassart, & Weets, 2015), and psoriasis and eczema (Magin, Heading, Adams, & Pond, 2010). These relationships may provide insight into how self-esteem functions with health issues; however, little research has focused on health condition antecedents of self-esteem.

Research suggests a couple of health conditions predict self-esteem. First of all, urinary incontinence (UI) has been shown to be an antecedent of self-esteem (Barghouti, Yasein, Jaber, Hatamleh, & Takruri, 2013). The sample in this study consisted of female hospital patients, aged 30 years and older (n = 1,001). Based on questionnaire findings, the authors suggested that, for 53.7% of the sample, UI was positively associated with low self-esteem ($p \leq .0001$). A second health condition associated with self-esteem is chronic bronchitis (Nicolson & Anderson, 2003). Researchers facilitated four focus groups in two cities, introducing diversity where possible by recruiting community outpatients from different social classes, genders, and age groups. Using a two-stage approach of thematic qualitative analysis (TQA), Nicolson and Anderson (2003) concluded that chronic bronchitis causes fluctuations in self-esteem as the patient monitors the effect that the disease has on their social life, possessing a sense of self-blame for their own limited capacities and the lack of understanding by others.

A health condition “assaults the body and threatens the integrity of the self” (Charmaz, 1995, p. 657). The individual does not sit idly by as their health deteriorates but is actively involved in a process of adaptation to living with the health condition. This adaptive process involves attempting to make sense of the health condition by incorporating it into a new sense of self (with accompanying emotional and behavioural changes). Inevitably, the individual experiences a loss of aspects of their former self and this loss is negotiated with their social environment. The new “diseased self” (Nicolson & Anderson, 2003, p. 265) can become a burden on the individual, causing the person to scrutinize and reject their own selfhood. Rodin
and McAvay (1992) explain how a decline in perceived health among adults may predict lower self-esteem. In a 3-year longitudinal research design, 264 participants experiencing the onset of health conditions were examined for psychosocial, dispositional, and biological changes. Changes in self-esteem were statistically significant ($p < .001$), as predicted by their own perceptions of their changing health.

**Demographic factors.** Drawing from the broader literature, it is also important to consider demographic factors that may predict self-esteem. First of all, research suggests self-esteem increases with age across adulthood, following a similar lifespan trajectory to other personality aspects such as emotional stability, extraversion, and conscientiousness (Watson, Suls, & Haig, 2002). Adulthood “is a time of highly stable work, family, and romantic relationships, characterized by peaks in achievement, mastery, and control over self and environment” (Orth, Trzesniewski, & Robins, 2010, p. 646). However, research does suggest that self-esteem levels drop in old age, likely due to decreasing socioeconomic status, a decline in physical health and mobility, memory loss, degradation of other cognitive capabilities, death of loved ones and reduced social support, and retirement (Baltes & Mayer, 2001; Wagner, Gerstorf, Hoppmann, & Luszcz, 2013). Thus, longitudinal data have characterized the trajectory of self-esteem as a quadratic curve: increasing across emerging, young, and middle adulthood; peaking at about 60 years of age; and substantially decreasing in old age (Orth, Trzesniewski, & Robins; Wagner et al.).

Gender identity may predict self-esteem. A vast amount of research reveals a significant gender gap exists on reports of self-esteem (Bleidorn et al., 2015). The literature suggests that, starting in adolescence, males show higher levels of self-esteem than females. Meta-analytic
research of 216 effect sizes (N = 48,000), produced a mean effect size of $d = 0.21$ across age groups, a small difference in favour of males (Kling, Hyde, Showers, & Buswell, 1999).

Ethnicity may also be a demographic variable associated with self-esteem. Adverse health outcomes of racial discrimination have been heavily researched in North America (Mereish, N‘cho, Green, Jernigan, & Helms, 2016). For example, results suggest that self-esteem may act as a moderator between ethnicity factors (e.g., discrimination against African Americans) and depression. Research is almost non-existent on self-esteem and the discrimination of Indigenous people in Canada; however, in New Zealand (i.e., another colonial settler society), perceived discrimination among Māori people predicted lower self-esteem, alongside other psychological factors (Houkamau, Stronge, & Sibley, 2017).

Education level is yet another demographic variable that may predict self-esteem. Results from one study (N = 54, individuals diagnosed with depression) suggest education level and self-esteem are negatively correlated with self-stigma (i.e., internalized stigmatization; Werner, Stein-Shvachman, & Heinik, 2009). A longitudinal study across eight years, from high school to early adulthood (N = 1,600 adult males), produced results suggesting self-esteem is indeed correlated with education level (Bachman & O'Malley, 1977). Similarly, higher levels of self-esteem and well-being appear to be “prerequisite[s] for [higher] educational achievement” (White, 1987 as cited in Michie, Glachan, & Bray, 2001), such that individuals with positive self-esteem are more likely to be academically enthusiastic and successful while those with negative self-esteem may not be able to cope with academic stressors while experiencing associated feelings such as shame, unworthiness, and helplessness (Michie, Glachan, & Bray).

Marital status and self-esteem have been shown to be associated (Sirgy, 2018). Research results reveal that men who marry in later adulthood may experience increases in self-esteem,
contributing to the “well-documented association between marital status and [self-esteem]” (Johnson, Krahn, & Galambos, 2017, p. 635). In a related study, researchers evaluated scaling assumptions and the component structure of the RSES, finding scores differed significantly across marital status groups, among other demographic variables (Sinclair et al., 2010).

Finally, pet ownership is a demographic variable worth considering as a predictor of self-esteem. One study confirmed a connection between pet ownership (i.e., parasocial, nonreciprocated, and nonhuman relationship) and enhanced levels of self-esteem (Brown, Shilling, Young, & Berrong, 2015). The results suggest that nonhuman relationships are “meaningful and potent enough to influence one’s feelings of social worth” (p. 233). Furthermore, research suggests that pet ownership is not only associated with self-esteem, but with other related factors as well, such as increased well-being, more exercise, greater conscientiousness, less fearful attachment, and the capability to control negative emotions caused by social rejection (McConnell, Brown, Shoda, Stayton, & Martin, 2011).

**Rationale for current research**

There is relatively little research on the psychological constructs and health conditions that act as antecedents of self-esteem, despite results from clinical research suggesting self-esteem is an outcome of such forces (Seligman, 1995). To the best of my knowledge, no studies have examined the combined predictive effects of depression, well-being/subjective QoL, health conditions, and demographic factors on self-esteem among adults who are homeless. As mentioned earlier, self-esteem is one of the most valued basic needs (Sheldon, Elliot, Kim, & Kasser, 2001), an ongoing intrapsychic phenomenon that contributes to our identity and to our actions (Epstein, 1985). Thus, by learning how to increase self-esteem, the adult who is homeless may experience related benefits such as improvements in higher order executive processing for
the strategic selection of goals aligned with overarching motivations (Cavallo, Holmes, Fitzsimons, Murray, & Wood, 2012; Kernis, 2003), the determination of intentionality and autonomy (Maslow, 1954), an ability to cope with stressors in daily life (Baumeister, Campbell, Krueger, & Vohs, 2003; Leary & Downs, 1995), protection against anxiety and depression (Franck & De Raedt, 2007), improvements in emotional intelligence and interpersonal functioning (Cheung, Cheung, & Hue, 2015; Huprich, Lengu, & Evich, 2016), employment eligibility (Hall, Gradt, Goetz, & Musu-Gillette, 2011), and decreased substance use (Ersöğütçü & Karakaş, 2016). For the adult who is homeless, increases in self-esteem may expand consciousness (Maslow, 1954; Mruk, 2013), which is a catalyst for change to improve life outcomes in the face of adversity (Epstein, 1979; Mruk; Orth, Robins, & Widaman, 2012; Snyder & Lopez, 2005). Self-esteem is a behavioural mechanism that accommodates personal growth and can help the adult who is homeless achieve optimal functioning in response to their own existence (Luthans, 2007). Without a doubt, the self-esteem construct is of phenomenological importance (Harter, 1999; Mruk) to the adult who is homeless and fights to cope with life’s daily realities.

**Study aims and research questions**

This thesis aims to identify whether certain psychological, health condition, and demographic factors predict self-esteem among Canadian adults who are homeless. Within the specified cohort of interest, we posit the following research questions: 1) Are demographic variables, including age, gender, ethnicity, education level, marital status, and pet ownership predictive of self-esteem?; 2) Do psychological factors, specifically depression and well-being/subjective QoL, predict self-esteem?; 3) Are number of health conditions (e.g., heart disease, asthma, emphysema, chronic obstructive pulmonary disease [COPD], cirrhosis of the
liver, hepatitis C, Crohn's disease, arthritis, HIV/AIDS, epilepsy, traumatic brain injury [TBI],
cancer, diabetes) antecedents of self-esteem?; and 4) Do any individual independent variables
significantly predict self-esteem, in the presence of the other predictors?

**Hypotheses**

Referencing the review of literature in this thesis, among adults who are homeless or
unstably housed:

1) Demographic variables, comprised of middle age (less than 65 years old), male
identification, White ethnicity, higher education, partnered marital status, and pet
ownership will positively predict self-esteem.

2) The psychological construct of depression will negatively predict self-esteem, whereas
the psychological construct of well-being/subjective QoL will positively predict self-
esteeem.

3) Number of health conditions will negatively predict self-esteem.

At this point, it is uncertain which proposed antecedents will significantly predict self-esteem in
the presence of other predictor variables. Thus, no hypothesis is posed.
Chapter 3: Manuscript

Introduction

Worldwide, homelessness\(^2\) is a problem with social, economic, and humanitarian implications. An estimated 100 million people are homeless across the globe, with up to 1.6 billion people lacking adequate housing (Habitat for Humanity, 2018). In Canada alone, at least 235,000 people experience homelessness each year (Gaetz, Dej, Richter, & Redman, 2016). To make matters worse, many people who have been homeless have regularly used street drugs, and have overdosed and/or died in the middle of Canada's unresolved opioid crisis, which claimed 3,996 lives in 2017 alone (Public Health Agency of Canada, 2018). The adult who is homeless also faces other dangers, such as physical violence, mental health issues, isolation, and lack of social support (Pyett & Warr, 1997; Vila-Rodriguez, 2013). Furthermore, those who are becoming homeless have increasingly diverse profiles and varied stories. That is, as homeless numbers increase, so does the diversity in personal factors, characteristics, and backgrounds of the victims and survivors. As more and more citizens are losing stable housing, we are experiencing a shift in the public's perception of who is homeless, viewing the individual with no fixed address as someone in need of social support rather than someone who is lazy and irresponsible (Erickson & Wilhelm, 2017). Often alone when confronted with challenges associated with being homeless, the adult is forced to rely on personal resources (i.e.,

\(^2\) “Homeless” is the term predominantly used to describe individuals who do not have a permanent residence or are at significant risk of losing housing in the next 14 days. People are considered homeless if they live in a shelter, public place, abandoned building, or other places not intended for human habitation, or were temporarily sleeping at someone else's place. “Unstably housed” describes an individual who has either been homeless or has experienced two or more moves in the past 12 months. Other preferred terms include: sleeping rough, living on the street, no fixed address, and couch surfing. We acknowledge and respect individuals who are unhoused and do not choose to use “homeless” to describe their living situation, however we have decided to use it for the sake of consistency with the broader literature.
psychological strengths and potentialities) to solve problems. Most people do not choose to be homeless and isolated, as this typically leads to an experience that is unpleasant, stressful, and distressing (Turner, Albanese, & Pakeman, 2017). Examining psychological resources available to the increasing number of Canadians who are homeless is an urgent matter as they struggle to survive and possibly secure stable housing in the future.

Considerable literature has viewed homelessness through a negative lens, focusing on substance use, crime, mental health deficits, abuse of health services, and cost to society. Primarily concerned with psychological problems, research has revealed that ~70% of adults who are homeless suffer from some type of mental health issue or neurological disorder (Vila-Rodriguez et al., 2013). As important as these numbers may be, they only tell half of the story; in addition to psychological deficits, an individual also possesses strengths and potentialities. Positive research on homelessness is needed because "Survival involves thinking positively about one's own life" (Visetpricha, 2016, p. 1). That is, the adult who is homeless will not only benefit from improving psychological deficits (e.g., depression) but will also become better equipped to address day-to-day challenges by identifying and exploring psychological strengths (e.g., subjective quality of life [QoL]). Through a positive psychological lens, it would be beneficial for future homelessness research to examine both deficits and strengths. Thus, positive psychological research can inform and inspire a movement towards therapeutic balance for adults who are homeless, in which counsellors and clinicians attend to both deficits and protective factors or strengths.

Among adults who are homeless, self-esteem may be associated with physical health, psychological variables, and demographic factors. First of all, research suggests that self-esteem is related to physical illness and health conditions, such as hepatitis C, asthma, emphysema,
stomach ulcers, tuberculosis, traumatic brain injury (TBI), cancer, sexual dysfunction, and type 1 diabetes (Branden, 2004; Lauder Roxburgh, Harris, & Law, 2009). With health conditions such as these, the individual suffers from not only attacks on the body, but also threats to the integrity of their selfhood (Charmaz, 1995). Second, research suggests associations exist between self-esteem and other psychological variables (i.e., depression, subjective QoL) among adults. For instance, self-esteem and depression have been shown to be correlated in several studies (Dinger, Ehrenthal, Nikendei, & Schauenburg, 2017; Franck and De Raedt, 2007; Orth, Robins, & Roberts, 2008). Similarly, a paucity of research has uncovered relationships between subjective QoL and self-esteem (Butkovic, Brkovic, & Bratko, 2012; Rodríguez-Díaz, Pérez-Marfil, & Cruz-Quintana, 2016; Stupnisky, Perry, Renaud, & Hladkyj, 2013). That said, no research has examined the direct effects that self-esteem and depression or subjective QoL may have on each other, among adults who are homeless or unstably housed. Finally, literature suggests self-esteem is related to a variety of demographic variables (i.e., age, gender, ethnicity, educational level, marital status, pet ownership). However, little research has examined associations between self-esteem and demographic variables among adults who are homeless or unstably housed. Thus, there is a need to look at what influences self-esteem to better understand the relationship between it and mental and physical health in the context of personal factors and characteristics. As such, the current study was informed by existing literature on self-esteem when deciding how to explore possible predictors in the specific homeless population.

In sum, the literature on homelessness is unbalanced, primarily focused on crime, substance use, and health costs. More positive psychological research is needed to examine protective factors, such as self-esteem, for the adult who is homeless. Furthermore, relatively little research exists on the psychological constructs and health conditions associated with self-
esteem. To the best of our knowledge, no studies have examined the combined predictive effects of subjective QoL, depression, health conditions, and demographic factors on self-esteem among adults who are homeless. It is of critical importance to address the lack of research on positive psychological constructs and further our understanding on how these protective factors operate in the presence of other variables. The individual who is homeless in Canada is regularly exposed to systemic dangers that may cause them harm or even take their life. Thus, we hope that findings from this study will aid in the identification of service gaps or programs that can help adults who are homeless minimize the dangers they face regularly.

The present study aimed to identify whether certain psychological (i.e., depression, subjective QoL), health condition, and demographic (age, gender, ethnicity, education level, marital status, pet ownership) variables predict self-esteem scores among adults who are homeless. We hypothesized that demographic variables and subjective QoL would positively predict self-esteem, while depression and number of health conditions would negatively predict self-esteem. We did not posit a hypothesis about which proposed antecedents would predict self-esteem in the presence of other variables. Ultimately, the present research aims to continue the necessary academic conversation by examining whether or not particular positive and negative psychological factors, demographic variables, and health conditions predict self-esteem scores among adults who are homeless or unstably housed in three Canadian cities.

Method

Participants and recruitment. The present study draws on existing data for 239 adults, ages 19 to 71 years, who were homeless or unstably housed and took part in the Quality of Life for Homeless and Hard-to-House Individuals (QoLHHI) study (Hubley et al., 2015). Participants were considered ‘homeless’ if they lived in a shelter, public place, vehicle, abandoned building,
or other places not intended for human habitation or were temporarily sleeping at someone else’s place. They were considered ‘unstably housed’ if they currently rented, but had been homeless within the past 12 months or had experienced two or more moves in the last 12 months. The participants were recruited from: shelters, meal programs, supportive housing, outreach programs, drop-in centres, transitional housing, treatment centres, service agencies, and community centres in three Canadian cities (i.e., Vancouver, Calgary, and Ottawa; Hubley et al., 2015). Participants were compensated for their time with a $20 CDN stipend. The original study was funded by the Research Alliance for Canadian Homelessness, Housing, and Health (REACH³) as part of a Canadian Institutes for Health Research (CIHR) Interdisciplinary Capacity Enhancement (ICE) Grant on Homelessness, Housing, and Health. Ethics approval was received from each of the University of British Columbia’s Behavioural Research Ethics Board, the University of Calgary’s Conjoint Faculties Research Ethics Board, and the Royal Ottawa Health Care Group’s Research Ethics Board.

**Measures.** The secondary data analysis focused on the following measures and variables in the examination of possible antecedents of self-esteem among this cohort of adults who are homeless or unstably housed.

*Rosenberg Self-Esteem Scale (RSES).* The RSES is a 10-item measure of global self-esteem (Rosenberg, 1965). For each item, the participant responds using a four-point Likert-type response scale (“strongly agree,” “agree,” “disagree,” or “strongly disagree”). Five of the 10 items are reverse-scored and all of the item scores are summed to create a total score. The possible range for the total score is 10 to 40, with higher total scores indicating higher self-esteem (Rosenberg). This measure has been used with adults who are homeless, producing minimally acceptable internal consistency reliability in a homeless sample (Cronbach’s α = 0.75;
Calsyn, Allen, Morse, Smith, & Tempelhoff, 1993). The RSES total score is the dependent variable (DV) in this study. Based on the current data, the RSES scores showed good internal consistency (Cronbach’s $\alpha = 0.88$), as presented in Table 3.2.

Center for Epidemiologic Studies Depression Scale (CES-D). The CES-D is a 20 item screen for depression developed for use in the general population (Radloff, 1977). The individual is asked to rate how often over the past week they have experienced various depressive symptomatology. The CES-D measures symptoms of depression in nine groups: sadness (dysphoria), loss of interest (anhedonia), appetite, sleep, concentration, worthlessness, fatigue, agitation, and suicidal ideation. Response options include: “less than 1 day,” “1-2 days,” “3-4 days,” and “5-7 days.” The measure has four reverse-scored items and the total score is arrived at by summing the item scores, with a possible total score range of 0 to 60. A score of 16 or greater suggests the individual has a high level of depressive symptomatology (Radloff). The CES-D has shown good internal consistency among adults who are homeless (Cronbach’s $\alpha = .89$; Wong, 2000) and psychiatric outpatients (Cronbach’s $\alpha = .92$; Nishiyama, Ozaki, & Iwata, 2009). From the present set of CES-D scores, we can conclude this measure has good reliability (Cronbach’s $\alpha = .91$; presented in Table 3.2).

Quality of Life for Homeless and Hard-to-House Individuals Quality of Life Satisfaction Scale: Short Version 1 (QoLHHI-QOLSAT). The QoLHHI-QOLSAT is a measure of satisfaction with various aspects of one’s life, including health, health care system, place where one lives or stays, living conditions, financial situation, employment situation, social and support services, recreational and leisure activities, spirituality, romantic situation, family, and friends (Gadermann, Hubley, Russell, & Palepu, 2014; Hubley, Russell, Gadermann, & Palepu, 2009). It is comprised of 13 self-report items, measured using a 7-point Likert-type response
format ranging from “very dissatisfied” to “very satisfied.” The measure has no reverse-scored items. The item scores are summed for a total score ranging from 13 to 91, and averaged to obtain a total average score ranging from 1 to 7. A higher total average score means that the participant is more satisfied with their own life. In the present study, the QoLHHI-QOLSAT is treated as a measure of both well-being and subjective QoL, components of a multidimensional positive model of health, the strongest dimensions being physical, social, emotional, psychological, intellectual, and spiritual (Meiselman, 2016). Based on the present data, the QoLHHI-QOLSAT scores demonstrate good internal consistency reliability with a Cronbach’s $\alpha$ of .81, as presented in Table 3.2.

**Health Conditions.** Participants were provided with a list of 31 health conditions (e.g., heart disease, asthma, emphysema, chronic obstructive pulmonary disease [COPD], cirrhosis of the liver, hepatitis C, Crohn's disease, arthritis, HIV/AIDS, epilepsy, traumatic brain injury [TBI], cancer, diabetes) (Hubley et al., 2015) and were asked if they had been diagnosed with any of these conditions. The number of conditions was summed for each participant. Details of the specific measures are presented in Table 3.2.

**Demographic Variables.** A number of demographic variables were collected in the original study. Based on the extant literature, the following variables were included as potential control variables, as they may be associated with the DV (i.e., self-esteem) and may contribute to the model’s predictive ability: age (in years at the time of testing), gender$^3$ (“male,” “female,” or “transgendered”), ethnicity (“White,” “Black/African-Canadian,” “Indigenous,” “East Asian,” “South Asian,” “Southeast Asian,” “West Asian,” or “Hispanic/Latin American”), education level

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$^3$ The initial data retrieval process provided participants with three choices for gender identity. We acknowledge that there are many other gender identities beyond what is specified in the existing data set used in the present study. Other identities include: two-spirit, gender nonconformist, genderqueer, intersex, and non-binary.
Data Analysis. The first step was to determine if each proposed IV was significantly related to self-esteem at the bivariate level. The aim of this preliminary analysis was to use the results to inform our decision about which IVs would be included in the final regression model. Using univariate analysis of variance (ANOVA) for the categorical demographic IVs (i.e., gender, ethnicity, education level, marital status, and pet ownership) and a bivariate correlation analysis for the continuous demographic IV (i.e., age), we determined which demographic variables showed differences on, or were correlated with, self-esteem in our sample. Next, we tested the bivariate correlations between self-esteem and the psychological variables, depression and subjective QoL. Then, using a bivariate correlation test, we determined if the number of health conditions IV was associated with self-esteem. Finally, we used an ordinary least squares (OLS) multiple regression to analyze whether or not any individual IVs, that were significant at the bivariate level, significantly predicted self-esteem, in the presence of the other predictors. Following the regression, the Relative Pratt Index (RPI) was calculated to identify the relative importance of the IVs in the model (Thomas, Hughes, & Zumbo, 1998). The formula for the RPI is $\beta r / R^2$, where $\beta$ is the standardized partial regression coefficient, $r$ is the zero-order correlation, and $R^2$ is the explained variance for the overall model.

Results

Participant characteristics. Among this sample of 239 adults who were homeless or unstably housed, males and females were equally represented, most of the cohort (87.8%)
claimed to be of White (n = 148, 61.9%) or Indigenous (n = 62, 25.9%) ethnicity, and ages were normally distributed across a range from 19 to 71 years (M = 42.3 years, SD = 11.8).

Furthermore, 96 (40.2%) reported some high school but no diploma and 41 (17.2%) reported some college/university but no degree, with 68.1% reporting a high school education or less.

Among our sample, 8.8% reported being married, 108 (45.2%) self-reported as being single and 73 (30.5%) reported being divorced or separated, and 42 (17.6%) owned at least one pet.

Complete descriptive information for the current sample is presented in Table 3.1.

Table 3.1  Descriptive characteristics of adults who are homeless or unstably housed.

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Number (%)</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (N=238)</td>
<td></td>
<td>42.3</td>
<td>11.8</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (N=239)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>120 (50.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>117 (49.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transgender</td>
<td>2 (0.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity (N=229)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>148 (61.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black/African-Canadian</td>
<td>5 (2.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indigenous</td>
<td>62 (25.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Asian</td>
<td>1 (0.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Asian</td>
<td>2 (0.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>1 (0.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Asian</td>
<td>2 (0.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latin American</td>
<td>4 (1.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4 (1.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Level (N=239)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 4 or less</td>
<td>2 (0.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 5-8</td>
<td>22 (9.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school, but no diploma</td>
<td>96 (40.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school completed, has diploma</td>
<td>31 (13.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G.E.D.</td>
<td>8 (3.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some college/University, but no degree</td>
<td>41 (17.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College/University graduate</td>
<td>35 (14.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate/professional studies</td>
<td>2 (0.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2 (0.8)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Demographic Variable

<table>
<thead>
<tr>
<th>Marital Status (N=239)</th>
<th>Number (%)</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married, including common-law</td>
<td>21 (8.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partnered but not married</td>
<td>30 (12.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>73 (30.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>7 (2.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>108 (45.2)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pet Ownership (N=239)</th>
<th>Number (%)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>42 (17.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>197 (82.4)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Performance of the measures.** The three measures used in the present study showed satisfactory internal consistency reliability as shown in Table 3.2.

**Table 3.2 Descriptive performance of the measures used in present study.**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Possible Range</th>
<th>Actual Range</th>
<th>M (SD)</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSES</td>
<td>10-40</td>
<td>12-40</td>
<td>28.5 (5.32)</td>
<td>.88</td>
</tr>
<tr>
<td>CES-D</td>
<td>0-60</td>
<td>0-58</td>
<td>22.7 (12.92)</td>
<td>.91</td>
</tr>
<tr>
<td>QoLHHI-QOLSAT</td>
<td>1-7</td>
<td>1.1-6.2</td>
<td>4.0 (1.00)</td>
<td>.81</td>
</tr>
<tr>
<td>Health conditions</td>
<td>0-31</td>
<td>0-19</td>
<td>6.0 (4.17)</td>
<td></td>
</tr>
</tbody>
</table>

*Note. RSES = Rosenberg Self-Esteem Scale, CES-D = Center for Epidemiologic Studies Depression Scale, QoLHHI-QOLSAT = Quality of Life for Homeless and Hard-to-House Individuals Quality of Life Satisfaction Scale: Short Version 1, M = Mean, SD = Standard Deviation*

**Bivariate analyses.** For the bivariate analyses, and subsequent OLS regression, some IVs were further categorized as follows: (a) gender (1=male, 0=non-male), (b) ethnicity (1=White, 0=non-White), (c) education (1=high school or more, 0=high school or less), (d) marital status (1=partnered, 0=not partnered), and (e) pet ownership (1=yes, 2=no). Nonsignificant differences in self-esteem were found for gender, $F(1, 237) = 0.842, ns., \eta^2 = .00$; ethnicity, $F(1, 227) = 0.477, ns., \eta^2 = .00$; education level, $F(1, 237) = 0.276, ns., \eta^2 = .00$; marital status, $F(1, 237) = 0.108, ns., \eta^2 = .00$; and pet ownership, $F(1, 237) = 2.482, ns., \eta^2 = .00$. Age was the only demographic variable significantly related ($r = .153, p < .05$) to self-esteem and thus included in the final linear regression model. Significant bivariate correlations were found between self-
esteem and the other continuous IVs of interest: depression ($r = -.655, p < .01$); subjective QoL ($r = .583, p < .01$); and number of health conditions ($r = -.287, p < .01$). Thus, based on the bivariate analyses, we included depression, subjective QoL, number of health conditions, and age as IVs in the final regression model, with the DV (i.e., self-esteem).

**Multiple ordinary least squares linear (OLS) regression.** All assumptions for linear regression were met: linearity, independence, normality, and equal variances (homoscedasticity). Signs of multicollinearity were not detected (VIFs = 1.09 – 1.74). Upon visual inspection of the box plot of the standardized residuals, one case was identified as a multivariate outlier. Further investigation of the specific case's Cook's distance statistic (.041 > 0.017, a cutoff value of $4/[n - p - 1]$, in which $p$ is the number of IVs) (Cook, 1977; Stevens, 1984) supported the idea that we may need to examine this participant's data at a deeper level. However, the Mahalanobis distance value of 8.92 was below the critical values of 23.72 for $n = 200$, and 26.37 for $n = 500, p < .01$ (Stevens, 1984). Additionally, the case’s leverage value of .039 was less than the maximum cutoff of .06 ($3[p/n]$ where $n = data$ points and $p = number$ of parameters, $p=5, n=239$) (Pennsylvania State University, 2018). We also examined the raw data for this participant and ultimately decided that the outlier was not a special case and thus we retained it in the final analysis.

An OLS linear regression was conducted to test whether or not the IVs of interest (i.e., depression, subjective QoL, number of health conditions, age) significantly predicted self-esteem. Results are shown in Table 3.3. The model was a good fit, explaining nearly half of the variance in the self-esteem scores, $F(4, 227) = 54.38, p < .001$, $R^2 = .49$, $R^2_{adjusted} = .48$.

Subjective QoL ($\beta = 0.28, p < .001$) and depression ($\beta = -0.45, p < .001$) were the only statistically significant predictors contributing to lower levels of self-esteem while controlling for
the other variables in the model. RPI, using the criterion for importance as values greater than $1/(2p) = 0.125$, in which $p = 4$ (i.e., the number of predictors), showed depression was the most important IV, explaining 60.8% of the explained variance ($R^2$). Subjective QoL was determined to be the second most important IV in the model, explaining 33.5% of the $R^2$ in the DV, relative to the other IVs. Age and health conditions were shown to be unimportant predictors.

Table 3.3  Predicting global self-esteem scores among adults who are homeless using ordinary least squares (OLS) multiple linear regression analysis.

<table>
<thead>
<tr>
<th>Variable</th>
<th>b</th>
<th>SE</th>
<th>95% C.I. for b</th>
<th>β</th>
<th>r</th>
<th>RPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>25.34</td>
<td>1.95</td>
<td>21.50 – 29.18</td>
<td>0.10</td>
<td>.140</td>
<td>0.027</td>
</tr>
<tr>
<td>Age</td>
<td>0.04</td>
<td>0.02</td>
<td>-0.00 – 0.09</td>
<td>0.10</td>
<td>.140</td>
<td>0.027</td>
</tr>
<tr>
<td>No. of Health Conditions</td>
<td>-0.07</td>
<td>0.07</td>
<td>-0.20 – 0.06</td>
<td>-0.06</td>
<td>-0.272</td>
<td>0.031</td>
</tr>
<tr>
<td>Subjective QoL</td>
<td>1.50</td>
<td>0.33</td>
<td>0.86 – 2.14</td>
<td>0.28*</td>
<td>.585</td>
<td>0.335</td>
</tr>
<tr>
<td>Depression</td>
<td>-0.19</td>
<td>0.03</td>
<td>-0.24 – -0.13</td>
<td>-0.45*</td>
<td>-0.655</td>
<td>0.608</td>
</tr>
</tbody>
</table>

Note. $R^2 = .49$. *Statistically significant ($p < .001$) results are bolded, b = unstandardized partial regression coefficient, $\beta$ = standardized partial regression coefficient, r = zero-order correlation, RPI = Relative Pratt Index.

Discussion

This is the first study to examine psychological predictors of self-esteem among adults who are homeless or unstably housed. Specifically, we hypothesized that self-esteem scores, measured using the RSES, would be related, at the bivariate level, to: psychological variables, i.e., depression measured using the CES-D, subjective QoL measured using the QoLHHI-QOLSAT, total number of health conditions, and demographic variables (i.e., age, gender, ethnicity, education level, marital status, pet ownership). We also wanted to explore which of these variables would significantly predict self-esteem scores in the presence of each other in a regression model.

Bivariate relationships between self-esteem and other variables. At the bivariate level, ethnicity, gender, education level, marital status and pet ownership were not associated with self-esteem in this sample. The lack of a significant association between ethnicity and self-esteem is
perhaps unsurprising given the equivocal nature of such relationships in the literature. For example, research suggests that a strong ethnic identity, when aligned with the dominant or mainstream culture, is related to higher levels of self-esteem (Phinney, 1991). However, one study found that a strong ethnic identity was associated with both positive self-esteem among Cuban people and negative self-esteem among Nicaraguan people (N = 291, adults living in Florida) (Cislo, 2008). Furthermore, ethnicity factors have been researched extensively, such as relationships between racial discrimination and self-esteem, among African Americans in the United States (Mereish, N'cho, Green, Jernigan, & Helms, 2016) and Māori peoples in New Zealand (Houkamau, Stronge, & Sibley, 2017). However, in Canada, research is almost nonexistent on self-esteem and ethnicity factors, such as discrimination of people who identify as Indigenous, represented by ~25% of the present cohort.

The lack of a relationship between the other demographic variables and self-esteem was surprising and contrary to the literature. First of all, an extensive amount of research has shown a gender gap in self-esteem scores in favour of males (Bleidorn et al., 2015), including meta-analytic research examining 216 effect sizes (N = 48,000 young Americans) (Kling, Hyde, Showers, & Buswell, 1999). The discrepancy in the present study may be due to the fact that males who are homeless have shown more aggression and substance use than females (Benda, 2005), and these two variables have been linked to lower levels of self-esteem (Khantzian, 1997; Otte, 2019). A considerable amount of research has found that education level and self-esteem are positively correlated, including results from an 8-year longitudinal study (N = 1,600 young adult males) (Bachman & O'Malley, 1977). One possible explanation for this discrepancy may be that the benefits of education can be attenuated by factors related to homelessness. Adults who are homeless “may well be at risk for poor 'brain health' and more rapid cognitive decline
compared with the general population” (Hinton, 2017, p. 118), likely due to: poor physical health and/or nutrition, prevalence of mental health issues and substance use disorders (SUDs), and lack of health care resources. The literature contains well-documented relationships between marital status and self-esteem (Sirgy, 2018). However, research has uncovered gender differences in the relationships between marital status and self-esteem; men experience increases in levels of self-esteem when marrying later in life (Johnson, Krahn, & Galambos, 2017). A possible reason for the contradiction between our study and the literature is that couples who live in unstable housing are sometimes subjected to crowded and chaotic conditions that lack privacy, reducing opportunities for bonding and intimacy and possibly negatively impacting their self-esteem (Haskett & Armstrong, 2019). Finally, the literature suggests that pet ownership is related to enhanced levels of self-esteem (Brown, Shilling, Young, & Berrong, 2015), explaining that nonhuman relationships are "potent enough to influence one's feelings of social worth" (p. 233).

Our results may be contrary to previous research because, for the majority of adult pet owners who are homeless, providing food and veterinary care is a significant and stressful problem (Kidd & Kidd, 1994), quite possibly contributing to diminished feelings of self-worth. Because these demographic variables did not show significant bivariate relationships with self-esteem they were not included as IVs in our regression model.

As anticipated, age was found to have a significant correlation with self-esteem. The significant bivariate results were in line with the literature, indicating a weak positive linear relationship ($r = .15, p < .05$). Previous research results suggested self-esteem levels increase with age across adulthood, following a similar lifespan trajectory to other personality variables such as emotional stability, extraversion, and conscientiousness (Watson, Suls, & Haig, 2002). The literature also suggests that stability in financial, emotional, and relational areas of life
increases with age and is associated with higher levels of self-esteem (Orth, Trzesniewski, & Robins, 2010; Watson, Suls, & Haig, 2002). In sum, for the most part, our hypothesis around demographics was not supported as age was the only demographic variable significantly related to self-esteem at the bivariate level and therefore the only demographic variable included in the regression.

As expected from our literature review, meaningful relationships were found between self-esteem and the psychological variables (i.e., depression, subjective QoL). Depression and self-esteem were significantly associated at the bivariate level with a moderate negative correlation \((r = -.66, p < .05)\), similar to existing research results which have also shown moderate negative correlations between RSES and CES-D scores (e.g., Rizwan, Aftab, Shah, & Dharwarwala, 2012). Also in line with the reviewed literature, subjective QoL and self-esteem showed a significant moderate positive correlation \((r = .58, p < .05)\). Several studies have examined the predictive effects that subjective QoL/well-being and self-esteem have on each other (Awan & Sitwat, 2014; Butkovic, Brkovic, & Bratko, 2012; Joshanloo & Rastegar, 2007; Sun, 2012; Stupnisky, Perry, Renaud, & Hladkyj, 2013; Zhang & Xu, 2007). In one clinical study, researchers found that therapeutic interventions focused on well-being/subjective QoL were connected to increased levels of self-esteem (Rodríguez-Díaz, Pérez-Marfil, & Cruz-Quintana, 2016).

Finally, self-esteem scores and total number of health conditions showed a small significant negative correlation \((r = -.29, p < .05)\). This is in keeping with previous research that has shown self-esteem to be negatively associated with the presence of health conditions, such as coronary heart disease, emphysema, tuberculosis, and hepatitis C (Feng & Xu, 2015;
Marteinsdottir, Ernerudh, Jonasson, Kristenson, & Garvin, 2016; Noor, Bashir, & Earnshaw, 2016; Scott, 1969).

The present bivariate results contribute to the literature on self-esteem among adults who are homeless. In this specific population, we have revealed the presence of significant relationships between self-esteem and the age demographic, psychological variables (i.e., depression, subjective QoL), and number of health conditions; findings that lend support to existing research. Another contribution of our bivariate analyses to the literature is that known relationships between self-esteem and other demographic variables (i.e., gender, ethnicity, education level, marital status, and pet ownership) do not always hold up given particular contexts, such as those found with adults who are homeless.

**Prediction of self-esteem scores.** Using an OLS regression, we examined whether depression, subjective QoL, number of health conditions, and age would significantly predict self-esteem scores in the presence of each other in a sample of homeless or unstably housed adults. Only two of the IVs predicted RSES scores: depression and subjective QoL. The findings from our study also showed that depression was more important than subjective QoL in predicting higher levels of RSES scores. Existing research offers the scar model (Orth, Robins, & Roberts, 2008; Philpot, Holliman, & Madonna, 1995) as one possible reason why depression was the most important predictor. The scar model suggests that depressive symptoms are a causal force, gradually eroding self-esteem, because "episodes of depression may leave scars in the individual's self-concept that progressively chip away at self-esteem over time" (Orth, Robins, & Roberts, p. 695), leaving not only deficits in self-worth but also in coping strategies related to self-esteem.
For a few reasons, lower levels of subjective QoL were shown to predict negative self-esteem. First, adults who are homeless are often marginalized, resulting in decreased access to social support services and broken ties with family members. These instances of marginalization are within a social context and may have deleterious effects on the individual's feelings or attitudes of self-worth. Secondly, for the adult who is homeless, lower levels of self-esteem may be associated with dissatisfaction in their close relationships. Establishing and maintaining close relationships can be difficult for those who are homeless, may be dealing with mental health issues, and SUDs, and are occupied with survival tasks. Other aspects of subjective QoL, such as satisfaction with the food we eat and the places we live, may be related to self-esteem. If society does not believe people who are homeless are worthy of food and shelter, this will undoubtedly impact the marginalized individual's self-concept. Finally, it is reasonable to believe that an overall dissatisfaction with life will negatively impact self-esteem. Being homeless may contribute to uncertainties around whether or not life is worth living. We exist in a socially-embedded context and dissatisfaction with our own subjective QoL may affect our self-esteem.

Age and number of health conditions were unrelated to self-esteem in the presence of depression and subjective QoL. In the regression model, the loss of age as a predictor can likely be traced back to the results from the bivariate analysis mentioned earlier. Despite the significant findings \( r = .15, p < .05 \), it was still a low correlation. It is reasonable to believe that the presence of other IVs in the OLS regression may have attenuated the weak bivariate correlation between age and self-esteem.

The regression did not produce a significant relationship between number of health conditions and self-esteem in the presence of the other variables. The reasons behind this finding are complex. Self-esteem is a socially constructed phenomenon (Hewitt, 2002; Mruk, 2013) and
health conditions are not necessarily visible to others. Indeed, some health conditions may seem invisible, such as Hepatitis C, a virus that can go undiagnosed and may be socially undetectable. Another reason health conditions and self-esteem may not be related in the present study is because self-esteem is more tied to how one reacts to adversity than the adverse event itself. The individual may experience an increase in self-esteem if they are able to manage, and possibly overcome, the illness. Finally, it is important to review our bivariate results when explaining the nonsignificant relationship between number of health conditions and self-esteem in the regression. Both depression and subjective QoL produced moderate bivariate correlations and explained most of the variability in self-esteem scores in the multivariate analysis. Conversely, the number of health conditions variable showed only a small bivariate correlation with self-esteem and was not a significant predictor in the presence of depression, subjective QoL, and age.

**Strengths and limitations.** This thesis has several strengths and limitations. One strength of the present study is that it has a relatively large sample size of 239 participants from three Canadian cities, which increases confidence in the statistical findings. The sample includes both individuals who are homeless and those who are unstably housed, which is also a strength because the two groups are part of a larger population that cycles in and out of a housed state (A. Hubley, personal communication, December 12, 2017). At the same time, one must be aware that the homeless and unstably housed population is heterogeneous, in the sense that it comprises various subgroups (such as elderly, veterans, individuals with SUDs, individuals with psychiatric conditions, survivors of violence or sexual abuse, recently unemployed) (Rouff, 2000) that vary in their needs, challenges, and strengths, which makes it difficult to apply findings to specific
groups and identify differences and common factors. That said, the heterogeneity of this sample can also be viewed as a strength in terms of the generalizability of the findings.

The variables and measures used in the present study also have strengths and limitations. A strength of the study is that self-esteem and depression were measured using well-recognized and established measures (i.e., RSES for self-esteem and CES-D for depression). Subjective QoL was measured using a population-specific measure; that is, the QoLHHI-QOLSAT was designed specifically for use with adults who are "homeless or whose housing situation is unstable or insecure" (Hubley et al., 2009, p. 3). Furthermore, the scores from the RSES, CES-D, and QoLHHI-QOLSAT show good internal consistency. Additionally, the health condition questionnaire is thorough and covers a wide range of illnesses which may accurately characterize the increased burden experienced by individuals who possess multiple comorbidities. One limitation of this study is that it is a secondary data analysis, thereby limiting the selection of variables and measures to what was included in the initial data collection. Finally, a noteworthy strength of this study, as mentioned earlier, is that no research has examined psychological predictors of self-esteem among adults who are homeless. Thus, the results produced by the current study provide new knowledge to address this gap in the literature.

**Conclusion.** Research has primarily looked at negative aspects of homelessness such as health care costs, crime, and substance use. Little research has examined self-esteem in individuals who are homeless and most studies characterize self-esteem as an predictor rather than an outcome. More attention needs to be paid to positive psychological constructs, such as self-esteem, that may serve as a protective factor for adults who are homeless or unstably housed. Prior to the present study, research has not examined psychological predictors of self-esteem in a homeless sample. Some literature has shown relationships between depression and
self-esteem (Orth, Robins, & Roberts, 2008; Rizwan, Aftab, Shah, & Dharwarwala, 2012) in samples different from that of the present study; thus, it will be helpful to identify variables that predict self-esteem and may contribute to the individual's ability to survive homelessness.

We identified four variables (age, number of health conditions, depression, subjective QoL) that showed relationships with self-esteem at the bivariate level in this sample. When examined together, only lower levels of depression and higher levels of subjective QoL significantly predicted higher levels of self-esteem among adults who are homeless or unstably housed in three Canadian cities. For clinicians working with adult clients who are homeless, our results illuminate the importance of addressing depression and subjective QoL issues early in the therapeutic process, thereby creating opportunities for improvements in self-esteem.
Chapter 4: Conclusion

In the present research, we used a positive psychological lens, to examine predictors of self-esteem, a construct that is not only a predictor of resilience but may also be tied to other strengths and potentialities. Our primary objective in the present study was to identify the demographic factors, physical health conditions, and psychological variables that predict self-esteem among adults who are homeless or unstably housed. This is the first study of its kind with this population, as most research with individuals who are homeless focuses on negative characteristics and deficits, does not treat self-esteem as an outcome, and does not examine multiple potential predictors of self-esteem. First of all, previous research suggests demographic factors are significantly associated with self-esteem, such as age, gender, ethnicity, educational level, marital status, and pet ownership (Bleidorn et al., 2015; Brown, Shilling, Young, & Berrong, 2015; Mereish, N'cho, Green, Jernigan, & Helms, 2016; Sirgy, 2018; Werner, Stein-Shvachman, & Heinik, 2009). Health conditions (e.g., urinary incontinence, chronic bronchitis) have also been shown to be related significantly to lower levels of self-esteem (Barghouti, Yasein, Jaber, Hatamleh, & Takruri, 2013; Nicolson & Anderson, 2003). Additionally, the literature suggests psychological variables are connected to levels of self-esteem. Specifically, higher levels of depression and lower levels of well-being/subjective QoL have been shown to be significantly negatively associated with self-esteem (Rizwan, Aftab, Shah, & Dharwarwala, 2012; Rodríguez-Díaz, Pérez-Marfil, & Cruz-Quintana, 2016).

Surprisingly, almost no research has explored to what degree psychological factors such as these predict or explain self-esteem scores. The knowledge gap is even wider due to the lack of attention given to contextual factors such as homelessness. In sum, it is reasonable to believe, for the adult who is homeless or unstably housed, that the most pertinent factors influencing feelings
and attitudes about self-worth are related to psychological and physical health, as well as personal and demographic factors.

The present study utilized both bivariate and multivariate analyses. The bivariate analyses were used to determine which proposed IVs were individually correlated with the DV, self-esteem, and would be included in the final multivariate model. Using ANOVA and Pearson correlations, we examined differences in self-esteem due to, or correlations between self-esteem and, demographic variables (i.e., age, gender, ethnicity, education level, pet ownership, marital status), psychological variables (i.e., subjective QoL, depression), and number of health conditions. The preliminary bivariate results helped us finalize the multivariate regression model, which ultimately included depression, subjective QoL, number of health conditions, and age. Ultimately, we found that higher levels of depression negatively predicted self-esteem, while higher levels of well-being/subjective QoL positively predicted self-esteem, in the presence of the other IVs. The RPI revealed that depression was the most important of the two psychological variables. Physical health conditions and age were not shown to be significantly related to self-esteem in the presence of depression and subjective QoL, thereby suggesting that self-esteem may be primarily influenced by psychological factors.

Implications for the field of counselling psychology

The present study is important to the sector of the counselling profession that provides service for adults who are homeless or unstably housed. By addressing depressive symptomatology and well-being/subjective QoL issues early in treatment, the client may benefit from associated improvements in self-esteem. An effective and empirically supported modality for treating depression is Emotion Focused Therapy (EFT) (APA Presidential Task Force on Evidence-Based Practice, 2006 as cited in Salgado, Cunha, & Monteiro, 2019; also, Elliott,
Greenberg, & Lietaer, 2004, as cited in Salgado, Cunha, & Monteiro). From an EFT perspective, the counsellor aids in the client's identification of neglected underlying needs and unexpressed primary adaptive emotions. When needs are unmet and primary emotions are not expressed, the individual will not be able to effectively process loss, access necessary adaptive feelings, and fulfill basic needs around social support and care. These outcomes are connected to isolation and depression, resulting in the person who is homeless repeating difficult patterns and experiencing psychological states characterized by hopelessness and helplessness (Salgado, Cunha, & Monteiro). Moreover, maladaptive emotion schemes (i.e., schemes involving sadness, anxiety, and shame) based on relevant experiences of abandonment, rejection, humiliation, diminishment, and isolation have deleterious effects on self-esteem (Greenberg & Watson, as cited in Salgado, Cunha, & Monteiro, p. 297). By facilitating the exploration of maladaptive emotions related to depression, the counsellor can help the client reconnect with core needs of the self using two main intervention principles (i.e., development of a healing therapeutic relationship built on emotional awareness and the resolution of tasks).

Clinical trials for the treatment of depression have produced significant results revealing the comparable efficacy of EFT when reviewed alongside client-centred therapy (at termination and at an 18-month follow-up) and Cognitive Behavioral Therapy (CBT) (Salgado, Cunha, & Monteiro). EFT can be helpful for adults who are homeless because emotions are "fundamental to the construction of the self, since they provide a 'gut-level' immediate source of information (i.e., a preconscious evaluation of stimuli), that human beings use to discern among competing priorities, orient to action, adapt to environments, and promote well-being" (Salgado, Cunha, & Monteiro, p. 293). Thus, when operating from an EFT orientation, the counsellor can help the client not only work through depression but also become more connected to their deeper
emotions which, in turn, fosters well-being/subjective QoL and abilities to respond effectively to the challenges associated with homelessness.

**Future research**

The current study has brought to light recommendations for future research. Methodological issues present in the literature need to be examined at greater depth. We chose to use the original and most popular definition of self-esteem (i.e., unidimensional, global; Rosenberg, 1965); however, variations do exist in how self-esteem is defined in the literature. For example, some researchers operationalize self-esteem using a two factor or multidimensional definition, meaning that self-esteem comprises both self-worth and competence (Mruk, 2013). Others have chosen to characterize feelings of self-worth as being situational or unstable versus global (Mruk). A deeper investigation of validity evidence, such as internal structure and response processes related to different self-esteem measures, would be beneficial in possibly resolving definitional problems. Similarly, the literature is equivocal when defining well-being and subjective QoL. In the present study, well-being and QoL are components of a multidimensional positive model of health, of which the strongest dimensions being physical, social, emotional, psychological, intellectual, and spiritual (Meiselman, 2016). Thousands of well-being/subjective QoL measures have been developed to measure positive health dimensions, with a focus on overall functioning. Researchers who refer to subjective QoL and well-being as the same construct advocate for a "common conceptual framework of [QoL and well-being, which] may eventually facilitate the development of a formal [synonym] of health-related wellbeing" (Salvador-Carulla, Lucas, Ayuso-Mateos, & Miret, 2014, p. 51). Other researchers suggest that the terms subjective QoL and well-being should be amalgamated into a new model that may "constitute a better conceptual tool than has been presented previously"
(Langlois & Anderson, 2002, p. 501). Future psychometric research may lend support to these claims.

Another direction for future research may be consideration of the temporal qualities of self-esteem and its predictors. The present study is cross-sectional in nature, employing a single data retrieval, possibly obscuring the predictive qualities of the antecedent variables. A longitudinal design would provide more opportunities to explore possible causation underlying levels of self-esteem through a time-sensitive enhancement of analysis and inference. As mentioned earlier, self-esteem can be seen as a state that fluctuates over time in response to emotional cues and monitoring of relationships and social situations (Leary & Downs, 1995; Mruk, 2013). Self-esteem has also been shown to be temporally unstable, gradually reacting to the accumulation of experiential changes and suddenly shifting with behavioural reactions to challenges in day-to-day life (Bednar, Wells, & Peterson, 1995). Furthermore, depression is sensitive to the effects of time as discussed earlier with respect to the scar model. Future longitudinal research may reveal some of the insidious qualities of depression that act as a causal force, slowly eroding levels of self-esteem (Orth, Robins, & Roberts, 2008).

Finally, the use of existing data was a constraint on the present study because there is a possibility we may have missed both unidentified confounding variables and critical predictors of self-esteem, thereby providing opportunities for future studies. In other words, the quality of the present research model is only as good as the variables in it. Ideally, follow-up research to the present study would address the number of health conditions IV. In our study, we used a summed total of the number of health conditions for each participant and potential predictors or confounders of self-esteem may have gotten lost in the mix of the composite variable. Upon inspection of our dataset, some particular health conditions appear noteworthy for our sample as
higher percentages of participants self-reported positive diagnoses for: asthma (32%); hepatitis B or C (31%); arthritis (44%); back problems (45%); problems walking, lost limb, physical handicap (34%); migraine headaches (29%); head injury (67%); hearing problems (25%); mood disorder (50%); anxiety disorder (37%); bed bug bites (32%); and foot problems (42%). In other words, for each of these 12 health conditions, approximately one-third to one-half of the cohort was afflicted. It is reasonable to believe that by examining each of health conditions separately, researchers may arrive at an alternative model.

Another consideration for future research, beyond the constraints of the present existing data, may be an exploration into related psychological variables. For instance, it is possible that anxiety acts as a predictor of self-esteem. That said, little research has examined the effects that anxiety and self-esteem have on each other and those results have been equivocal (de Jong, 2002; Hulme, Hirsch, & Stopa, 2012). Additionally, previous research results suggest depression and anxiety may also be linked (Watson, Gamez, & Simms, 2005), yet it remains unclear how they are related (Herbolsheimer, Ungar, & Peter, 2018). Furthermore, both depression and social anxiety have been associated with lower levels of positive emotions (e.g., excitement, interest, Watson, Gamez, & Simms, 2005). In Canada, adults who are homeless may experience less positive emotions than housed individuals, and if basic needs are unmet, then it is reasonable to believe that negative affect may be more prevalent.

Self-esteem is one of the oldest and most researched topics in psychology (Mruk, 2013). The present study not only reveals challenges confronting the self-esteem researcher attempting to make a worthwhile addition to the massive amount of seemingly discrepant literature, but also shines a light on an opportunity to help improve the lives of society's most marginalized. Through a positive psychological lens, future research should attempt to demystify the ways in
which counsellors can help adults who are homeless, by addressing both deficits and potentialities and how these factors may interact and influence each other.
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