

Social Support as a Predictor of Substance Use, Mental Health
and Mental Well-Being Among Street-Involved Youth:
A Longitudinal Examination

by

Mary Clare Kennedy
B.A, University of Victoria, 2009

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of

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in the Social Dimensions of Health Program

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Abstract

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The purpose of this thesis research is to describe the perceived availability of social support among street-involved youth and examine how this longitudinally predicts their substance use, mental health and mental well-being. Data from a panel study of street-involved youth in Victoria, British Columbia were analyzed (N=130). A thematic analysis of responses to open-ended questions and descriptive analyses of responses to closed-ended questions were conducted to describe the perceived availability of social support in participants' lives, including the types, content, sources of social support as well as the circumstances in which supports are provided. Multivariate regression was used to test two prominent theories of the relationship between social support and health (the stress-buffering and main effect theories) and to examine the association between sources of social support and health. The thematic analysis and descriptive analysis results indicate that there is considerable heterogeneity in terms of the availability, sources and types of social support among this population. The regression results provide partial support for the main effect theory; perceived availability of social support predicted reduced alcohol and hard drug use, fewer mental health concerns and better mental well-being, regardless of stress levels. The stress-buffering theory was not supported, as perceived social support did not significantly affect the direction and/or strength of the relationship between stressors and health outcomes. Additionally, sources of social support were not significantly associated with health outcomes. The thesis concludes with policy and program suggestions and gives direction for further research on the relationship between social support and health among street-involved youth.

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Dedication

To my parents, Maggie and Fergus, who have always supported my academic pursuits, who have instilled in me values of social justice and who have encouraged me from a very young age to do what makes me happy.

Chapter 1: Introduction

There are an estimated 150,000 homeless or street-involved youth living in Canadian communities, comprising one third of Canada's homeless population (Public Health Agency of Canada, 2006). These youth, who are either homeless or live in highly unstable residential conditions, represent a significant social and public health concern. A growing body of literature indicates that street-involved youth are exposed to multiple factors that may negatively impact their health, including limited financial resources, exposure to violence, and barriers to healthcare, social services and adequate shelter (Whitbeck, Hoyt, & Ackley, 1997; Rachlis, Wood, Zhang, Montaner & Kerr, 2009). Moreover, street-involved youth are susceptible to a wide array of adverse physical and mental health outcomes; compared with youth in the general population in Canada, street-involved youth have higher rates of substance use and abuse, sexually transmitted infections (STIs), unsafe sexual health practices, blood borne infections, skin and respiratory diseases, mental health problems, and mortality (Edidin, Ganim, Hunter & Karnik, 2012; Kipke, Montgomery, Simon & Iverson, 1997; Kirst & Erickson, 2013; Roy, Haley, LeClerc, Sochanski, Boudreau & Boivin, 2004; Wood, Stolz, Montaner & Kerr, 2006). Given these serious health concerns, identifying key modifiable health determinants is critical for preventing ill health and ultimately improving the well-being of street-involved youth.

A growing body of evidence suggests that access to social support is an important modifiable factor that contributes to positive health and well-being among youth (Cohen, 2004). However, despite substantial information on how access to social support affects the health outcomes of general populations of youth, important knowledge gaps remain about how this support affects the health and well-being of street-involved youth. Such gaps arise largely because previous research on the health benefits of social support for youth has primarily

focused on more advantaged populations of youth, such as general community samples. Thus, there is a dearth of research on the social support of street-involved youth, which may partially explain why the limited research in this area has yet to produce a coherent pattern of findings. In addition, there are several key issues within the current literature on this topic. First, this research has almost exclusively relied on cross-sectional data, which makes it difficult to make reliable conclusions regarding the directionality of effect between social support and health outcomes. Second, to my knowledge, only one study of street-involved youth has tested both of the most prominent theories of the health effects of social support, the stress-buffering theory and the main effect theory (Unger et al., 1998). Last, while previous research suggests that the beneficial health effects of social support for street-involved youth may depend on the characteristics of the providers or sources of social support (Bao, Whitbeck, & Hoyt, 2000; De la Haye, 2012), the effect of this variable has rarely been analyzed. These are important knowledge gaps and limitations that need to be addressed if the role of social support for the health and well-being of street-involved youth is to be better understood.

Section 1.1 - Purpose of the Study

The purpose of this research is to examine how availability of social support impacts the health and well-being of street-involved youth in the Victoria Census Metropolitan Area. A mixed methods approach is used, featuring analysis of both closed-ended and semi-structured open-ended interview question data. The data are taken from the *Risky Business?: Experiences of Street-Involved Youth* project, an ongoing longitudinal panel study of street-involved youth in Victoria, British Columbia; the study has five waves and has been following street-involved youth since 2002 (N=185). There are three specific objectives of this analysis. First, I analyze participants' perceived availability of social support, including the types, content, sources of

social support as well as the circumstances in which supports are provided; this involves a thematic analysis of semi-structured interview data and analysis of survey data to obtain descriptive statistics. Second, I use zero-order correlations as well as multivariate ordinary least squares (OLS) and logistic regression to longitudinally examine how perceived social support impacts the health and well-being of street-involved youth; I test two prominent theories of social support with these methods of analysis. I test the main effects theory by examining the direct effect of perceived social support on substance use, mental health and mental well-being. I test the stress-buffering theory by examining the moderating role of social support between important childhood stressors and these health and well-being outcomes. Third, I use zero-order correlations and multivariate regression to examine how sources of social support for street-involved youth impact their substance use, mental health and mental well-being. Using both qualitative and quantitative methods allows me to explore overlapping but distinct aspects of social support among street involved youth, yielding a “broader, deeper, and more inclusive” understanding than would be obtained by either method independently (Greene, 2007,p.98).

Section 1.2 - Structure of the Thesis

The structure of this thesis is as follows: Chapter 2 introduces the concept of social support, and provides an overview of my theoretical framework and central hypotheses. Chapter 3 provides an overview of pertinent literature including research on the relationship between social support and health, the health and well-being of street involved youth, stressors among street-involved youth, and the association between social support and health among street-involved youth. Chapter 4 provides a detailed description of the methods I employ, the study participants, the data set, and the qualitative and quantitative analytical techniques. Chapter 5 presents the qualitative findings and Chapter 6 presents the quantitative findings. Chapter 7

summarizes these findings and discusses them in relation to previous literature. Chapter 8 provides a summary of the thesis, discusses its strengths and limitations, provides directions for future research, discusses the implications of these findings and presents concluding remarks.

Chapter 2: Theoretical Framework and Research Hypotheses

Section 2.0 - Introduction

In this chapter, I provide an overview of the theoretical framework and research hypotheses of this thesis analysis. Section 2.1 presents definitions of social support and reviews central components of this concept. Section 2.2 introduces the two theoretical frameworks that inform this thesis research: the stress-buffering theory and the main effect theory (Cohen & Wills, 1985; Cohen, Gottlieb & Underwood, 2000; House, 1981). Section 2.3 presents the research hypotheses that will be examined.

Section 2.1 - Conceptualizing Social Support

While social support has been defined in numerous ways, it can be broadly defined as “companionship and practical, informational and esteem support which the individual derives from interaction with members of his or her 'social network', including friends, colleagues, acquaintances and family members” (Cooper, Arber, Fee, & Ginn, 1999:9). More specifically, there is growing consensus in social support literature that social support is best conceptualized as a multidimensional construct that encompasses “relationships, perceptions, and transactions that help individuals master emotional distress, share tasks, receive advice, learn skills and obtain material assistance” (Warren, Jackson & Sifers, 2008). Frameworks for studying these multiple dimensions of social support often consist of both structural aspects (e.g., how many relationships an individual has; frequency of contact in relationships) and functional aspects (i.e., what these relationships do or are perceived to do). However, many social support researchers agree that studies of social support should focus primarily on the functional content of social relationships since examining structural aspects provides little information about the *quality* of social support individuals have access to (House & Kahn, 1985; Leppin & Schwarzer, 1990). In this view, social support is thought to include a number of functional components, including

instrumental support (access to tangible aid when in need), emotional support (access to empathy, care, love and trust), informational support (access to advice and information to address problems) and appraisal components (access to information needed for self-evaluation) (Cassel, 1976; Cobb, 1976; House, 1981; Weiss, 1974).

Robert Weiss (1974) is one of the first social support theorists to develop a multidimensional framework of social support based on the specific functions or “relational provisions” served through the interactions of individuals. Weiss (1974) identifies six broad categories of “relational provisions” of support: attachment, social integration, opportunity for nurturance, reassurance of worth, a sense of reliable alliance, and the obtaining of guidance. Attachment refers to relationships characterized by emotional bonding, which provides a sense of security and belonging. Social integration is a sense of shared values, interests, activities as well as companionship, which results in a feeling of meaningful inclusion in a social group. Opportunity for nurturance involves being somewhat responsible for the love, care and well-being of others, which Weiss (1974) argues allows individuals to feel needed and contributes meaning to their lives. Reassurance of worth refers to acknowledgement by others of an individual's competence in a given social role, resulting in a feeling of appreciation. For Weiss (1974), sense of reliable alliance means having relationships that an individual can rely on for assistance during times of vulnerability or limited resources regardless of the situation. Lastly, obtaining of guidance refers to receiving advice from a trustworthy authoritative figure during stressful times, resulting in emotional support and information that enables an individual to take an appropriate course of action. This framework of social support has been highly influential; it has been used and adapted by numerous social support theorists and researchers (e.g., Cutrona & Russell, 1987; Furman, 1989; Pierce et al., 1996) who emphasize the importance of examining

how specific components of social support contribute to health and well-being and inform the development of more effective interventions (Sarason & Sarason, 1994).

A final important distinction in the literature on the functional aspects of social support is the difference between received support and perceived support (Barrera, 1986; Dunkel-Schetter & Bennett, 1990; Uchino, 2004). Received support (also referred to as actual support) refers to the amount and type of support that is actually received and is based on the recall of specific instances of assistance performed by others (Barrera, 1986). Conversely, perceived support refers to support perceived to be available to an individual if needed (Dunkel-Schetter & Bennett, 1990). While examining both received and perceived support may provide important information about an individual's access to social support, perceived support is often described as a more stable individual characteristic than received support, which is thought to be a situational factor that may vary considerably across time and context (Barrera, 2000; Pierce, Sarason & Sarason, 1990; Sarason, Sarason, & Shearin, 1986; Thoits, 1985; Uchino, 2009). Moreover, prominent social support theorists such as Cobb (1976) and Cassels (1976) have argued that perceived social support has a greater influence on health than does received social support. This emphasis on perceived over received social support has continued in recent years, particularly among health researchers, which I will discuss in greater detail in a later section.

Section 2.2 - Theoretical Framework

My thesis is informed by the two main theoretical frameworks linking social support to health and well-being: the stress-buffering theory and the main effect theory (Cohen & Wills, 1985; Cohen, Gottfried & Underwood, 2000; House, 1981). The stress-buffering theory is the most influential and widely tested model of social support (Lakey & Cohen, 2000). According to the stress-buffering theory, social support is a moderator (i.e., it affects the direction and/or

strength of the relationship between stressors and health). Specifically, social support may reduce the harmful effects of life stressors (i.e., act as a stress buffer) on the health, well-being and behavioral outcomes of youth and other populations (Cohen & Wills, 1985; Compas, 1986; DuBois, Felner, Brand, Adan & Evans, 1992; Dubow, Edwards, Ippilito, 1997; Sandler, 1980; Thoits, 1995; Warren, Jackson, Sifers, 2009). Life stressors, such as childhood maltreatment, are thought to adversely impact health by promoting destructive behavioural coping responses (e.g., substance use, sleep loss) and by prolonging activation of the physiological stress response systems, including the sympathetic nervous system and the hypothalamic-pituitary-adrenal cortical axis. The result is an increased likelihood of adverse physical and mental health (Cohen, Kessler & Gordon, 1995; Cohen, 2004). According to Cohen and Wills (1985), social support may ameliorate these adverse health outcomes in two main ways. First, if a youth perceives that support is available, (s)he may appraise a stressor as less threatening or stressful. Second, social support may provide psychological and material resources that enhance the ability of youth to cope with stressors and adapt to difficult life circumstances. Conversely, youth who are under high stress and have little social support may be more likely to interpret stressful events as threatening and/or may not have the resources to effectively cope with stressors. As a result, these youth are theorized to be the most likely to engage in destructive coping behaviours (e.g., substance use) and to have poor physical and mental health outcomes (Cohen, 2004).

While the stress-buffering theory posits that social support has the most beneficial health effects for those under high stress or suffering adversity, the main effects theory posits that social support is beneficial for all youth, regardless of their stress levels or adverse life experiences. The main effects theory predicts that by meeting the basic human needs of compassion, intimacy, a sense of belonging and reassurance of worth, supportive social networks may enhance health

and well-being (Berkman & Glass, 2000; Demaray, Malecki, Jenson, & Cunningham, 2010).

While the stress-buffering theory is the most relevant when studying social support among children and youth under high levels of stress, the two theoretical models are not necessarily mutually exclusive. Testing both theories may offer unique insights on the role of social support in influencing their health and well-being (Demaray et al. 2010).

Section 2.3 - Research Hypotheses

This research tests two distinct theories of the relationship between social support and health, the main effect and stress-buffering theories. The main effect hypothesis is as follows:

- (1) Lower levels of perceived social support at wave one is associated with higher levels of substance use, a greater number of mental health concerns and poor mental well-being at wave two.

The stress-buffering theory of social support is as follows:

- (2) The association between stressors (e.g., childhood abuse or living situation instability) measured at wave one and health and well-being at wave two is moderated by social support; participants with high stress levels and low levels of perceived social support will have the highest levels of substance use and mental health concerns and the poorest psychological well-being (see Figure 2).

The final hypothesis of this research is drawn from the extant literature on the relationship between social support and health among street-involved youth:

- (3) Reliance on family members for support (rather than friends, service providers or other sources) measured at wave one is associated with lower levels of substance use, fewer mental health concerns and better mental well-being at wave two.¹

¹ The rationale for this hypothesis will be discussed in greater detail in Section 3.4.

Figure 1: Main Effect Model of Social Support

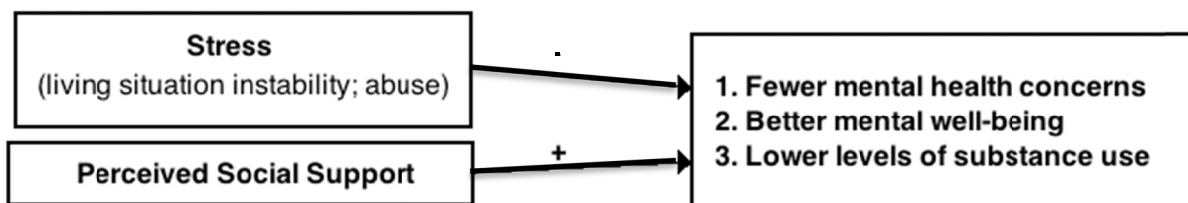
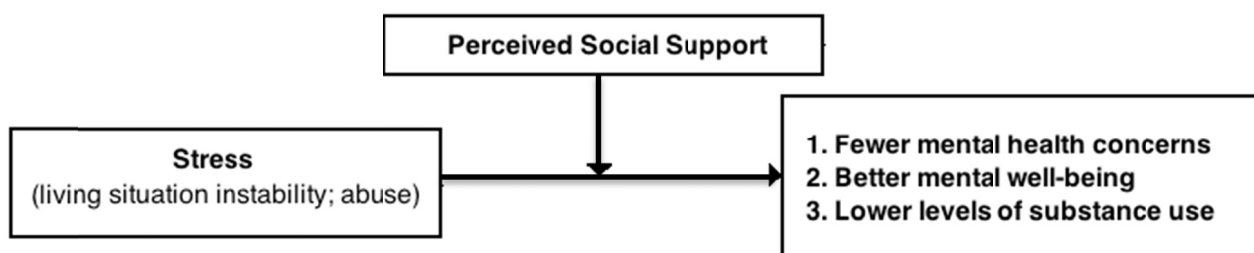


Figure 2: Stress-Buffering Model of Social Support



Section 2.4 - Summary

This chapter introduced the concept of social support, broadly defining it as the numerous types of support an individual derives from interactions with people in his or her social network (Cooper et al., 1999:9). While frameworks of social support often consist of both structural and functional aspects, greater theoretical and empirical attention has been focused on the functional aspects of social support (i.e., what relationships do to support people). The key functional components of social support are instrumental support, emotional support, informational support, and appraisal (Cassel, 1976; Cobb, 1976; House, 1981; Weiss, 1974). A multidimensional framework of social support has been developed by Weiss (1974) based on the specific functions

of social support: attachment, social integration, opportunity for nurturance, reassurance of worth, a sense of reliable alliance, and the obtaining of guidance.

This chapter also discusses the two theoretical frameworks that guide my thesis research: the stress-buffering theory and the main effect theory (Cohen & Wills, 1985; Cohen, Gottlieb & Underwood, 2000; House, 1981). While the stress-buffering theory predicts that social support has beneficial health effects only for those who have experienced adversity, the main effects theory predicts that social support is beneficial for all youth, regardless of their stress levels or adverse life experiences. I conclude this chapter by introducing the research hypotheses that are primarily from these theories and the extant literature in this area.

Chapter 3: Review of the Literature

Section 3.0 - Introduction

This chapter provides an overview of relevant literature. Section 3.1 presents an overview on previous literature on the relationship between social support and health. Section 3.2 discusses previous work on the health and well-being of street involved youth. Section 3.3 discusses literature on stressors among street-involved youth. Section 3.4 discusses extant literature on the association between social support and health among street-involved youth.

Section 3.1 - Social Support and Health

There has been a significant increase in recent years in research devoted to examining the effect of social support on health and well-being (Lakey & Cohen, 2000; Uchino, 2004). This research suggests that access to social support from family, friends and other members of personal networks promotes positive health and well-being among both adults (Cohen & Wills, 1985; Sarason, Sarason & Gurung, 2001; Uchino, Cacioppo & Kiecoit-Glaser, 1996) and adolescents (Compas et al., 1986; DuBois et al., 1992; Dubow et al., 1997; Sandler, 1980). Reviews by Lakey and Cohen (2000) and Uchino (2004) suggest that among mainstream populations (e.g., general community samples; secondary school students) social support is linked to a broad range of health and well-being outcomes. Low levels of social support are associated with poor physical health outcomes, including higher mortality rates, particularly from cardiovascular disease (Berkman, Leo-Summers, & Horwitz, 1992; Brummett et al., 2001; Frasure-Smith et al., 2000; G.A. Kaplan et al., 1988; Orth-Gomer, Rosengren, & Wilhelmsen, 1993; Rutledge et al., 2004; Williams et al., 1992), cancer (Ell, Nishimoto, Medianski, Mantell, & Hamovitch, 1992; Hibbard & Pope, 1993; Welin, Larsson, Svaärsudd, Tibblin, & Tibblin, 1992) and infectious disease (Lee & Rotheram-Borus, 2001; Patterson et al., 1996). High levels

of social support are also associated with a decreased likelihood of a range of mental health concerns, including depression (Cronkite, Moos, Twohey, Cohen, & Swindle, 1998; Kaltiala-Heino 2001; Monroe, Imhoff, Wise, & Harris, 1983; Windle, 1992), reduced post-traumatic stress disorder (Brewin, Andrews, & Valentine 2000), suicidal ideation (Schutt, Meschede, & Rierdan, 1994), non-specific psychological distress (Finch, Okun, Pool, & Ruehlman, 1999), anxiety disorders (Brewin et al, 2000), and poor self-esteem (Newcomb & Keefe, 1997). Moreover, social support has been linked to health promoting behaviours such as decreased alcohol and drug consumption (Monroe, Imhoff, Wise, & Harris, 1983; Windle, 1992), decreased cigarette smoking (Steptoe, Wardle, Pollard, Canaan, & Davies, 1996) and increased exercise (e.g., Okun et al., 2003).

Some of this research has provided empirical support for the main effects theory, as social support was found to benefit health regardless of stress levels (Lakey & Cohen, 2000; Uchino, 2004). Although it has been somewhat less consistent than the support for the main effects model, the stress-buffering model has also received a great deal of empirical support (Cohen & Wills, 1985; Cohen, 2004; Demaray et al., 2010). This suggests that social support may provide ameliorative effects against the impact of stressors on health and/or may have health benefits regardless of stress levels. Some studies have provided evidence for both models of social support, with social support being linked to health benefits for all participants with the link even stronger for those under high levels of stress (e.g., Demargo & Martinez 2006). Thus, the two models are not mutually exclusive and “the predominance of one effect over the other depends on the target population, the situation being studied, and the ways in which the social relationship concept is measured” (Demaray et al. 2010).

One consistent finding in this literature is that the perception of support is more important to health and well-being than is actually receiving support from others (Cohen, Gottlieb, & Underwood, 2000; Lakey & Cohen, 2000; Wills & Shinar, 2000). Perceived support has received more empirical support as a predictor of positive health and well-being and has been found to have stronger effect on positive outcomes than has received support (Cohen, 2004; Wills & Shinar, 2000). Notably, the majority of studies that have tested perceived social support as a moderator between stressors and health have provided support for the stress-buffering hypothesis (Cohen, 2004; Cohen et al., 1985). This is likely because perceived social support is typically more stable than is received social support, as previously mentioned, and thus has a more consistent impact on health and well-being (Barrera, 2000; Pierce, Sarason, & Sarason, 1990; Sarason, Sarason, & Shearin, 1986; Thoits, 1985; Uchino, 2009).

Section 3.2 - The Health and Well-being of Street-Involved Youth

A growing body of literature suggests that street-involved youth are vulnerable for a wide range of adverse health outcomes and often engage in “risky” behaviours and are exposed to environmental factors that may further comprise their health and well-being. Compared with the general population of youth in Canada, street-involved youth have an eight to eleven times greater risk of mortality² (Roy et al., 2004). They are also more susceptible to poor physical health; Smart, Adlaf, Walsh & Zdanowisc (1994) found that 38% of street-involved youth Toronto rated their health as fair or poor compared to only 2% of the general population of youth in Toronto. Moreover, street-involved youth have higher rates of sexually transmitted infections (STIs), human immunodeficiency virus (HIV) infection, and viral hepatitis (Roy et al., 2004). Street-involved youth are also likely to suffer from poor mental health. In one study, 64% of

² 921 per 100,000 person-years according to Roy et al (2004)

youth in Los Angeles met *Diagnostic and Statistical Manual* (DSM)-III criteria for clinical depression (Unger, Kipke, Simon, Montgomery & Johnson, 1997), which is much higher than the 7% prevalence rate among conventional youth (Peterson et al., 1993).

Numerous studies have also pointed to the high rates of engagement in behaviours that may negatively impact the health of street-involved youth, including unsafe sexual health practices (Kipke et al., 1997; Whitbeck et al., 1997; Rachlis et al., 2009) and alcohol and other drug use, including injection drug use (Roy et al., 2004; Wood et al., 2006). Lifetime substance use rates as high as 97% have been reported for this population (Tyler & Johnson, 2006). Moreover, street-involved youth are 4.5 times more likely to have a diagnosis of alcohol dependency and eight times more likely to have a diagnosis of drug dependency than their housed counterparts, with an estimated two-thirds of street youth meeting DSM criteria for at least one substance use disorder (Johnson et al., 2005).

The health risks and concerns of street-involved youth are exacerbated by the major barriers they face in accessing social and health-related services, including stigma and discrimination, insensitivity, difficulties trusting service providers, fears about confidentiality, lack of relevant identification, and hesitance about accessing services that are oriented toward homeless adults (Ensign & Gittlesohn, 1998; Geber, 1997; Haldenby, Berman & Forchuk 2007).

Section 3.3 - Stressors Among Street-involved Youth

Research indicates that street-involved youth are exposed to a variety of stressful life experiences and circumstances both before and while living on the streets. According to Unger and colleagues (1998:137), many have had family backgrounds and living situations characterized by stress: “Many homeless youth report numerous stressors during childhood, such as frequent changes of residence, poverty, family conflicts, physical abuse, sexual abuse, absence

of (or infrequent interactions with) parents, and drug abuse by parents”. Studies suggest that this stress is likely to continue once these youth are on the street as they are immersed in an environment where they are more likely to experience crime, violence, chronic lack of shelter, unreliable family relations, dependence on the informal (street) economy and to have difficulties meeting their basic needs due to limited economic resources (Benoit, Jansson, Halgrimsdottir & Roth, 2008; De la Haye et al., 2012). Moreover, Benoit and colleagues (2008:326) describe street-involved youth as a “temporally different” population of youth who, at an earlier age than most middle-class youth, face responsibilities typically associated with the transition from adolescence to adulthood, such as romantic relationships, substance use, and changes in education and employment status. However, street-involved youth often face these responsibilities with limited familial support and economic resources. That is, “they are ‘experimenting’ with the markers and experiences of adulthood without a safety net” (Benoit et al., 2008:349).

These experiences and circumstances may induce stress that has harmful effects on the health and well-being of street-involved youth. Increased stress levels have been shown to have a negative impact on health, increasing the risk of physical illness, hospitalization, health service utilization, depression, eating disorders, suicide and suicidal thoughts (Adams, Overholset & Spirito, 1994; Barnett, Jofe, Duggan, Wilson & Reple 1996; Compas, Orosan & Grant, 1993; Daniels & Moos, 1990; Grey, 1993; Lewinsohn, Gotlib & Seeley, 1995; Panzarine, Slater & Sharps, 1995; Rawson, Bloomer & Kendall, 1994; Rosen Compas & Tacy, 1993). Stressors commonly reported by street-involved youth, including abuse and neglect in childhood, have been found to strongly predict physical and mental health problems in adulthood, increasing the likelihood of ischemic heart disease, liver disease, chronic obstructive pulmonary disease,

autoimmune diseases, and STIs in adulthood (Christian & Schwarz, 2010; Dong et al., 2004, Dube et al., 2009; Anda et al., 2008; Hillis et al., 2000). Another common stressor among street-involved, instability in living situation during childhood, is associated with elevated levels of behavior problems (Najman et al., 1997; Kurdek et al., 1995; Fomby and Cherlin, 2007), poorer emotional adjustment, and lower academic achievement (Kurdek et al., 1995; Martinez & Forgatch, 2002). These findings underscore the importance of identifying modifiable factors, such as social support, that can potentially mitigate the impact of these stressors on the health and well-being of street-involved youth.

Section 3.4 - Social Support and the Health and Well-being of Street-Involved Youth

Most research examining the beneficial health effects of social support for youth has been conducted with relatively advantaged populations of youth, such as general community samples of youth that “[consist of] predominantly White, early-to-middle adolescents attending school” (Zimmerman, 2000). Only a few studies have examined how social support impacts the health and well-being of more marginalized or disadvantaged groups of youth, such as street-involved youth. These studies have increasingly shown that while they tend to lack the traditional social support networks that surround their housed counterparts, street-involved youth are heterogeneous in terms of their access to social support and from whom they access support (De la Haye et al., 2012; Johnson et al. 2005; Wenzel et al. 2010, 2012). This heterogeneity in terms of social support may be differentially predictive of health and well-being outcomes (Bao et al. 2000; De la Haye et al., 2012; Unger et al., 1998).

The findings of these studies tend to be more supportive of the main effects theory of social support over the stress-buffering model. However, to my knowledge, only one study of street-involved youth has tested the stress-buffering theory of social support. Unger and

colleagues (1998) tested both the main effects and stress-buffering theories of social support. They examined the influence of stress, coping strategies, and social support on depressive symptoms, physical health and substance use among a sample of 432 homeless youth in Los Angeles, California. Their results indicate that while high levels of stress had harmful effects on the health of homeless youth, youth with higher levels of social support were less likely to report depression and poor subjective health. However, social support was found to have beneficial health effects regardless of stress level, thus supporting the main effects theory of social support.

Several other studies have tested and provided empirical support for the main effects theory (without empirically testing the stress buffering theory) as their finding suggest that social support may influence health and health-related behaviours. Smart and Walsh (1993) interviewed 145 street-involved youth in Toronto, Ontario; the authors found that lower levels of social support were predictive of more depressive symptoms. Taylor-Seehafer, Johnson, Rew and colleagues (2007) examined the association between social support and sexual behaviours in a purposive sample of 176 homeless youth in south central United States. These authors found that social support was positively associated with sexual self concept, self-efficacy to use condoms and intention to use condoms.

While the stress-buffering theory of social support has seldom been tested or supported among samples of street-involved youth, a few studies of street-involved adults have provided evidence of a stress-buffering effect of social support. Toro, Tulloch and Ouellette (2008) examined the stress-buffering and main effects of social support among two probability samples of street-involved adults (Ns=249 and 219) recruited at two different points in time over an 8-year period. They found greater total perceived social support to have a significant main effect, with less social support resulting in greater psychological symptoms. They also reported several

stress-buffering interactions, with those under high stress and little social support having the poorest health outcomes. Similarly, two earlier studies of social support among street-involved adults provide evidence of both stress-buffering and main effects among this population (Bates & Toro, 1999; Schutt, Meschede & Rierden, 1994).

While these and other findings highlight the important role of social support for health and well-being, evidence of the beneficial health effects of social support among street-involved youth have not been consistently found, particularly in studies of health behaviours. Ennet, Bailey and Federman (1999) investigated how the structural and functional aspects of the personal social networks influenced the health behaviours of runaway and homeless youth in Washington, DC (N=327). Approximately one quarter (26%) of their sample was socially isolated (i.e., reported having no personal network); these youth were more likely to use illicit drugs, have multiple sex partners and engage in survival sex. However, among those who identified a personal network, perceived access to social support was not generally associated with positive health behaviours. One exception was the availability of instrumental support, which contrary to the findings of other studies, was positively associated with having multiple sex partners and marijuana use. Falci, Whitbeck, Hoyt & Rose (2011) also found a positive association between support and substance use. However, Unger and colleagues (1998) and Wenzel and colleagues (2010) found no evidence of a link between social support and substance use. Moreover, Zlatevski (2011) found that a negative association between initial social support and number of substance abuse symptoms over time.

These inconsistencies in findings may be partially related to differences in sources of social support among street-involved youth, as recent studies suggest that impact of social support on health and well-being may depend on whom they are receiving support from (i.e., the

sources of social support) (Bao et al. 2000; De la Haye et al. 2012). In their study of 602 street-involved adolescents in the United States, Bao, Whitbeck and Hoyt (2000) used a path model to test the direct effect of family abuse and early independence on psychological well-being (depressive symptoms) and indirect effects through social support networks. They found that family abuse and early independence from family were associated with reliance on peers for social support in adolescence. Support from friends was found to reduce depressive symptoms, with the exception of associations with deviant peers, which increased depressive symptoms.

These findings and other studies suggest (e.g., De la Haye et al., 2012; Gwadz et al., 2009; Kidd & Shahar, 2008) that becoming street-involved often leads to weakened ties to family and increased reliance on street-based peers, who are a source of “both risk and resilience” (Kidd & Shahar, 2008:163). On the one hand, street peers may provide support that has the potential to improve health and well-being. On the other hand, they may also increase the likelihood of risky behaviours, particularly substance use, which may have a negative impact on health. Thus, according to De la Haye and colleagues (2012:10): “Sourcing support from relationships that also promote risky substance use likely mitigates some of the beneficial effects of support: this support is unlikely to deter maladaptive behavioural responses to stress if the relationships already support or promote risky behaviours”. These findings suggest that to better understand the influence of social support on the health of street-involved youth, researchers should also be analyzing the characteristics of who is providing social support to these youth.

Despite progress in understanding how social support influences the health and well-being of street-involved youth, important knowledge gaps remain. First, compared to general populations of youth, there have been relatively few studies of the health benefits of social support for street-involved youth. In particular, little is known about the stress-buffering effects

of social support for this structurally-marginalized population; this is surprising given that they are known to experience more stressors and have poorer health than their housed counterparts (Unger et al., 1998; Roy et al., 2004). Moreover, even though previous research suggests that sources of social support may differentially affect health and health behaviours, few studies have analyzed the health impact of who is providing support to street-involved youth.

Furthermore, I could find only one longitudinal study (Zlatevski, 2011) on the link between social support and health among street-involved youth, with all remaining studies relying on cross-sectional data. Due to the correlational nature of this research the direction of association between social support and health is unknown and thus, the ability to infer causality is limited. Even though most social support literature suggests that social support has a positive impact on health and well-being, there may be alternative explanations for this relationship. For example, it is possible that youth with poor health may withdraw contact from others who would provide support or may perceive their access to social support more negatively than those with good health (Toro et al.2008), Alternatively, there may be shared underlying risk factors that account for the association.

Three minimum requirements must be met in order to infer that there is a *causal relationship* (defined as a belief that events occur in predictable ways and that one event leads to another) (Shepard, 2001) between social support and lower levels of substance use and mental well-being among street-involved youth. First, there must be a significant association between these variables (in bivariate and multivariate regression analyses). The second criterion is temporality; social support must be assessed prior to health outcomes with a prospective design to have a clear time difference between social support and the outcomes of interest. The final requirement to infer causation is the control of alternative explanations; while it is impossible to

control all possible alternative explanations, a number of key variables that are known to impact health and well-being should be included in the analysis. In order to clarify the direction of effect between social support and health and well-being among street-involved youth, I attempt to meet each of these criteria in assessing this relationship.

Section 3.5 - Summary

This chapter provides an overview of the literature relating to the link between social support and health and well-being among street-involved. Previous work has found social support to be linked to a broad range of health and well-being outcomes among general samples of adults and youth. Overall, this work has yielded more empirical support for the main effects theory than the stress-buffering theory. Perceived support has received more empirical support as a predictor of positive health and well-being and has been found to have stronger effect on positive outcomes than has received support (Cohen, 2004; Wills & Shinar, 2000).

Previous research suggests that compared to general populations of youth, street-involved youth are vulnerable for a wide range of adverse health outcomes and often engage in “risky” health behaviours, including substance use. Moreover, they are exposed to a variety of stressful life experiences and circumstances both before and while living on the streets that may further comprise their health and well-being. There is some evidence to suggest that social support may have a positive effect on the health and well-being of street-involved youth (Bao et al. 2000; De la Haye et al., 2012; Unger et al., 1998). However, there is limited research, particularly longitudinal research, on this association.

Chapter 4: Methods

Section 4.0 - Introduction

This chapter discusses the methods employed for this thesis analysis. Section 4.1 presents an overview of the mixed methods analysis that will be employed. Section 4.2 discusses the purpose for mixing qualitative and quantitative methods. Section 4.3 introduces the study from which the data for this analysis is based, discussing the research participants and recruitment strategies employed. Section 4.4 describes how the data was collected. Section 4.5 describes the qualitative analytical techniques that were employed for my thesis analysis. Section 4.6 discusses the measures used for the quantitative analyses, including independent and dependent variables. Section 4.7 discusses the quantitative analytical techniques that were employed.

Section 4.1 - Overview of Thesis Analysis

The purpose of this thesis research is to examine how availability of social support impacts the health and well-being of street-involved youth in the Victoria Census Metropolitan Area. A mixed methods approach is used, featuring analysis of both closed-ended and semi-structured open-ended interview question data. This data is taken from the *Risky Business?: Experiences of Street Involved Youth* project, an ongoing longitudinal panel study of street-involved youth in Victoria, British Columbia; the study has five waves and has been following street-involved youth since 2002 (N=185). However, this thesis analysis is limited to data from the first two waves of interviews (N=130). There are three specific objectives of this analysis. First, I analyze street-involved youths' perceived availability of social support, including the types, content and sources of social support as well as the circumstances in which supports are provided; a thematic analysis of semi-structured interview data is employed to gain a nuanced understanding of the context-based nature of social support among participants. Descriptive

analyses of closed-ended questions were employed to provide a description of the sources and extent of support among research participants for triangulation with the qualitative results. Second, I use zero-order correlations as well as multivariate ordinary least squares (OLS) and logistic regression to test two prominent theories of the relationship between social support and health and well-being. I test the main effects theory by examining the direct effect of social support on substance use, mental health and mental well-being, and test the stress-buffering theory by examining the moderating role of social support between important childhood stressors and these health outcomes. Last, I use zero order correlations and multivariate regression to examine how sources of social support for street-involved youth impact their health and well-being outcomes. The results of the respective methods are integrated at the point of interpretation to form a comprehensive whole.

Section 4.2 – Purpose for Mixing Methods

Qualitative and quantitative methods were mixed in this research for the purpose of complementarity- to obtain “broader, deeper, and more comprehensive social understanding by using methods that tap into different facets or dimensions of the same complex phenomenon. In a complementarity mixed methods analysis, results from the different methods serve to elaborate, enhance, deepen and broaden the overall interpretations and inferences from the study (Greene, 2007,p.101)”. The qualitative analysis was conducted first in order to explore the social relationships of research participants and to gain an in-depth understanding of the context-based nature of social support among participants, including the sources and types of support they value most, as well as the circumstances in which social support is provided to them. Conducting this qualitative analysis first allowed me to use emergent qualitative themes to identify key variables in the closed-ended dataset relating to participants’ social relationships and social

support. Next, I conducted descriptive analyses of these variables to determine if the themes identified in the qualitative analysis also had analytic hold with the quantitative data. I then used additional quantitative methods (zero order correlation and regression) to examine the implications these relationship and social support variables have for the health and well-being of participants. Thus, using both qualitative and quantitative methods allowed me to explore overlapping but distinct aspects of social support among street involved youth, yielding a more comprehensive and nuanced understanding than would be obtained by either method independently.

Section 4.3 - Study Participants

For this thesis research, I analyze data drawn from the first two waves of an ongoing, five-wave longitudinal panel study titled *Risky Business?: Experiences of Street Youth* that has been conducted in the Victoria Census Metropolitan Area since 2002. This study focuses on the impact of street involvement on the health and well-being of a purposive sample of street-involved youth (N=185). To be eligible for participation in this study, participants had to be between 14 and 19 years of age at the time of their first interview, have little or no contact with family or the formal education system, must have frequented the street full- or part-time in the past month, and must have been making some money from the illegal economy (i.e., on-the-street activities, such as panhandling or selling drugs).

Several different sampling techniques have been employed to recruit participants, with the primary goals of increasing the representativeness and diversity of this 'hard-to-reach' population of youth. First, staff from four downtown community agencies that provide services to street-involved youth assisted with recruitment and have continued to assist with reconnecting research team members with participants for follow-up interviews. Other frontline health and

social services and contacts from the provincial Ministry of Children and Family Development (MCFD) also connected the research team with participants. Second, advertisements were posted in areas where street-involved youth often congregate. Lastly, “respondent-driven sampling” (Heckathorn, 1997) was employed; youth who had participated in the study were given three cards with information about the study to give to their peers. For each peer that a youth recruited to participate, (s)he was given ten dollars. In total, 185 youth who contacted the research team were deemed eligible for the study and agreed to participate. These youth were interviewed twice in the first month (which combined are considered wave one), and subsequently interviewed every two to three months depending on if the research team was able to contact them and their willingness to continue participating. To date, 130 of the initially recruited youth have completed two waves (i.e., three interviews); this thesis analysis is limited to the responses of these participants. More than half of participants have been interviewed three times and over one third have completed five interviews. While follow-up interviews continue to be conducted with street-involved youth who have already completed at least one interview and who wish to participate in additional interviews, new participants are no longer being recruited.

Section 4.4 - Data

The data were collected through the administration of an in-person questionnaire that included closed- and open-ended questions on a range of topics, including childhood experiences, past and present living situations, substance use, mental health and physical health. Participants were interviewed and audio-recorded with their consent. Interviewers read questions aloud and recorded the majority of participant responses. Participants were also given the option to self-administer questions on topics they deemed to be personal, private or or sensitive. Interviews lasted between forty-five minutes to an hour and a half to complete; the length of

interviews depended largely on the relevance of certain questions (for example, on romantic relationships) and each participant's willingness to elaborate on their answers to open-ended questions. All participants provided verbal informed consent prior to completing the research instrument. At the end of the interview, participants were given twenty dollars for the initial interview and twenty-five dollars for each follow-up interview. The research protocol was approved by the *University of Victoria's Human Research Ethics Board* (ethics protocol number 08-388-01j).

Section 4.5 - Qualitative Analysis

Thematic analysis of semi-structured interview data was employed to gain a nuanced understanding of the context-based nature of social support among participants, including the sources and types of support they value most, as well as the circumstances in which social support is provided to them. The following open-ended question about relationships and social support was analyzed: "Talk a bit about the people in your life whom you like the most. Probes: Why do they stand out for you? Can you confide in them? Do they make you feel good about who you are? Are they there for you when you feel down? Do you miss them when they are not around?" Thematic analysis focuses on "the ways individuals make meaning of their experience, and, in turn, the ways the broader social context impinges on those meanings" (Braun & Clarke, 2006, p. 81). Thematic analysis is a "method for identifying, analyzing and reporting patterns (themes) within the data", organizing and describing data in rich detail (Braun & Clarke, 2006, p. 79).

I conducted the thematic analysis by following Braun and Clarke's (2006) six phases of thematic analysis: familiarizing yourself with the data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes, and producing the final

report. First, I organized all responses to the above question into a single document and read it twice in its entirety to familiarize myself with the breadth and depth of participants' responses, noting patterns and ideas for potential coding strategies. Next, I imported all responses into NVivo 10 software and applied initial codes to all of the data, focusing primarily on condensing responses into smaller, descriptive units to reduce the data into a more manageable form. I then used a sample of ten participant responses to produce an initial coding strategy by searching for themes and an overarching structure for organizing these themes. I selected responses that were typically longer and more detailed than other responses to allow me to include a wide range of initial codes and to search for broader patterns in the data, focusing on the relationships between codes as well as relationships between larger themes (forming main themes and subthemes). Once I developed an initial coding scheme, my primary supervisor, Dr. Cecilia Benoit, independently coded the same set of ten responses. She then assessed the consistency of our separately-developed coding schemes by identifying similarities and discrepancies, provided feedback on her interpretation of the most salient themes and suggested minor modifications to the coding scheme. I then applied this coding scheme to the larger data set, using NVivo as well as visual mind map technology (see Appendix A) to refine and relate different levels of themes. I checked the validity of themes by rereading all participant responses to ensure the coded data form a coherent pattern within each theme and to ensure the themes and relationships presented in the thematic mind-map accurately reflect the data. Overall, thematic analysis allowed me to inductively search for and relate themes (Braun & Clarke, 2006, p. 86), producing a thick description and interpretive understanding of the relationships and social supports offered to the sample of street-involved youth.

Section 4.6 - Measures Used for Quantitative Analyses

This portion of the chapter presents the variables used for the quantitative component of this thesis analysis. First, I present the independent variables: perceived social support; source of social support; living situation instability; lifetime abuse; control variables (gender, ethnicity, sexual orientation, and age); and interaction terms used to test the stress-buffering hypothesis. Second, I present the dependent variables: substance use (alcohol use, hard drug use, daily cannabis use); mental health concerns; and mental well-being.

4.6a - Independent Variables

Perceived social support. Given that perceived social support availability is known to be of considerable significance for health (Wills & Shinar, 2000), perceived social support, rather than the received aspect, was assessed among participants in this study. Perceived social support was measured in wave one using a modified short-form of the *Social Provisions Scale* (SPS) originally developed by Cutrona and Russell (1987). Cutrona and Russell created this scale to assess the six specific “relational provisions” or functions of social support identified by Weiss (1974) in his multidimensional framework of social support: reliable alliance, guidance, opportunity for nurturance, reassurance of worth, social integration, and attachment. These items were measured using a 4-point Likert scale ranging from 1 (strongly agree) to 4 (strongly disagree). Items included were (a) “If something went wrong, no one would help me;” (b) I have family and friends who help me feel safe, secure and happy;” (c) “There is someone I trust whom I would turn to for advice if I were having problems;” (d) “There is no one I feel comfortable talking about problems with;” (e) “I miss a feeling of closeness with another person;” (f) “There are people I can count on in an emergency”. The SPS has excellent internal consistency and good test-retest reliability (Cutrona & Russell, 1987). Another item, “People have difficulty feeling

close to me”, was included as an additional measure of participants’ attachment to others and was measured in the same way as the above items.

To assess total perceived availability of social support, three of the above social support indicators were reverse coded so that higher scores indicate greater levels of perceived social support (“I have family and friends who help me feel safe, secure and happy.”; “There is someone I trust whom I could turn to for advice if having problems.”; “There are people I can count on in an emergency.”). Next, participant scores on each of these seven indicators of social support were weighted equally, averaged and combined into a single score (Cronbach’s alpha = .73). The frequency distributions for responses to each social support statement and descriptive statistics for the combined perceived social support scale are presented in Table 11 and Table 12 in Chapter 6- Quantitative Findings (section 6.1).

Sources of social support. To assess sources of social support, at wave one participants were asked, “Who do you turn to first in any type of crisis situation?” Participants were asked to indicate the first three people would turn to from a list of sixteen different options including “mother/female guardian”, “father/male guardian”, “boyfriend/girlfriend”, “friend(s)”, “outreach worker”, “police officer” and “other”. Responses were recoded into four main categories: 1) family; 2) friends; 3) service provider; and 4) other. They were then assigned scores for three distinct variables: 1) family support; 2) friend support; 3) service provider support (as few people chose ‘other’) based on their recoded responses. Responses about whom they would turn to first were assigned a score of 3; their second responses were assigned a score of 2; and their third responses were assigned a score of 1, with an observed minimum score of zero (indicating no reliance on that particular source) and maximum score of six for each of the variables (family support, friend support, service provider support). Participants who responded that they would

turn to “no one” (either first, second or third) were assigned a score of zero that was added to each of the respective family, friend and service provider variables. The frequency distributions for participant responses to the question about whom they would turn to first, second and third in a crisis situation are presented in Table 13 in Chapter 6- Quantitative Findings (in Section 6.1). Additionally, Table 14 in Chapter 6 presents descriptive statistics for each of the sources of support (i.e., family, friend, and service provider) variables.

Living situation instability. Living situation instability was assessed in wave one with a question that asks participants to recall the living situations they have had for a month or longer since when their birth up until the time of the interview. There were 26 responses for participants to choose from such as “both biological parents”, “foster parent(s)”, “on the street” and “other”. Each participant was assigned a score based on the number of *changes* in living situation from age 0 to age 14, with a greater number of changes indicating greater living situation instability. Table 1 shows descriptive statistics for living situation instability among participants. The mean number of changes in living situation for participants is 2.92. Frequency distributions indicate that while the majority (62.3%) of participants have had two or less changes, approximately one-fifth of participants (21.5%) had six or more changes in their living situation.

Table 1: Living Situation Instability

	Minimum	Maximum	Mean	Std. Deviation
Living situation instability	0.00	14.00	2.92	3.19
N=130				

Lifetime Abuse. To assess experiences of lifetime abuse, participants were asked to indicate ‘yes’ or ‘no’ at wave one if they had ever experienced emotional trauma, sexual abuse, or

physical abuse. These variables were dummy coded with ‘no’ as the reference category for each. ‘Yes’ responses were scored as 1, and ‘no’ responses as 0. These scores were then added together to create an index with higher scores indicating greater levels of abuse. Table 2 shows the frequency of physical abuse, sexual abuse and emotional trauma among participants. The majority of participants (53.9%) report that they have experienced emotional trauma, almost half (43.8%) report that they have been physically abuse and 16.5% indicate that they been sexually abused in the past. Table 3 shows descriptive statistics for the total abuse index. The mean score is 1.1, with a standard deviation of 1.01.

Table 2: Physical, Sexual and Emotional Abuse

	Ever been Physically Abused?	Ever been Sexually Abused?	Ever experienced Emotional Trauma?
Yes	43.8%	16.5%	53.9%
No	56.3%	83.5%	46.1%
N=128			

Table 3: Lifetime Total Abuse Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
Total abuse	0.00	3.00	1.14	1.01
N= 128				

Control variables. Gender, ethnicity, sexual orientation and age were reported by participants at wave one. The response categories for gender include ‘female’, ‘male’, ‘transgendered FTM’, and ‘transgendered MTF’. This gender variable was dummy coded with ‘male’ as the reference category. Ethnicity was assessed by asking participants if they are Aboriginal or a visible minority; responses were dummy coded with ‘no’ as the reference category for each. Age was assessed by asking participants the month and year in which they were born, and subtracting this date from the month and year in which they were interviewed. The responses categories for

sexual orientation were homosexual, heterosexual, bisexual, two-spirited and other. However, there were too few participants to maintain these as distinct categories in the analyses. This variable was dummy coded with heterosexual assigned a value of '1' and non-heterosexual (homosexual, bisexual, two-spirited and other) as the reference categories. These variables were included as control variables in the analyses. The distributional characteristics of these variables are shown in Table 7. Approximately 60% of participants identify as female, just over a quarter of participants identify as Aboriginal, 7% report being a visible minority, just over half (54.3%) identify as heterosexual, and the mean age is 16.7.

Table 4: Sample Characteristics: 'Risky Business' Participants at Wave One

	Frequency	Percent
Gender		
Female	77	59.2
Male	53	40.8
Aboriginal	36	27.7
Visible Minority	8	7.0
Sexual Orientation		
Homosexual	9	7.1
Heterosexual	69	54.3
Bisexual	43	33.9
Two-spirited	2	1.6
Other	4	3.1
Age		
Mean	16.7	
Range	14.0 - 19.3	
	N=130	

Interaction terms. Two interaction terms (one between perceived social support and lifetime abuse, and another between perceived social support and living situation instability) were added to each of the regression models. This allowed me to test the stress-buffering theory (i.e., determine if social support moderates (affects the direction and/or strength) of the relationship between the stressor(s) and each the dependent variable).

4.6b - Dependent Variables

Substance use. Substance use was assessed by asking participants at wave two how often they had used an extensive list of substances over the past two months. This was measured using a 6-point scale ranging from 'never' to 'several times a day'. The substances assessed were alcohol, marijuana, cocaine, heroin, ecstasy, GHB, acid, solvents, prescriptions/pills, PCP, mushrooms, crystal meth/ speed, dipt, other psychedelics, ketamine, DxM, nitrous oxide and other.

Participant responses were recoded into the estimated number of times used in the last 30 days (never=0; once a month= 1; twice a month= 2; once a week= 4.28; several times a week= 9; once a day= 30; several times a day= 60).

Table 5 shows the frequency of substance use in the past two months among participants. Alcohol has the highest rates of use in the past two months, with approximately 85% of participants reporting that they have used it at least once a month. Cannabis use is a close second, with approximately 80% reporting using it at least once a month in the past two months. There are more daily users of cannabis than alcohol, with the majority of participants (57%) reporting they use it at least once a day, compared to 9.6% of participants who report being daily users of alcohol. The rates of use of the remaining substances are much lower, with the majority of participants reporting that they have not used them in the past two months. However, five substances had slightly higher rates of use, with approximately one-third of participants reporting that they have used cocaine/ crack, acid, mushrooms, or ketamine at least once in the last two months, and 41.7% reporting they have used ecstasy at least once. Besides alcohol and cannabis, the substances with the highest rates of daily users were crystal methamphetamine/ speed with 5.6% of participants reporting using it at least once a day over the last two months, followed by prescription pills and then cocaine/crack, with 3.2% and 1.6% reporting to be daily users,

respectively. For the remaining substances, less than 1% of participants report that they are daily users.

There are three distinct dependent substance use variables included in the regression analyses: 'hard drug' use, alcohol use and cannabis use. Because rates of use for all substances other than alcohol and cannabis were relatively low, a new combined variable was created for past two-month 'hard drug use'. This term is used as a shorthand reference for the use of substances that are often thought of as qualitatively different than alcohol and cannabis, since their consumption is typically viewed as less normative and is associated with greater health and legal risks for young people (Ellickson and Morton, 1999). Participant scores (i.e., the estimated number of times used in the past 30 days) for each substance (heroin, cocaine, methadone, cannabis, ecstasy, GHB, acid, solvents, prescription pills, PCP, mushrooms, other psychedelics, methamphetamines, ketamine, DXM, nitrous oxide, dipt) were averaged, weighted equally and combined into a single score. A logarithm transformation was applied to this hard drug use variable because it was positively skewed. This allowed this variable to meet the regression assumption of normal distribution. Table 6 shows descriptive statistics for this variable prior to the application of the logarithm transformation. The mean number of times these 'hard drugs' were used in the last thirty days is 1.12, with a range of 0 to 9.23.

A logarithm transformation was also applied to the alcohol use variable because it was positively skewed. Last, because cannabis use has a bimodal distribution, cannabis use was recoded as a binary variable, henceforth referred to as 'daily cannabis use', (with using cannabis once a day or several times assigned a value of '1' and using several times a week or less assigned a value of '0').

Table 5: Substance Use

	Never in the last two months	Once a month	Twice a month	Once a week	Several times a week	Once a day	Several times a day
Alcohol	15.1%	21.4%	11.9%	17.5%	24.6%	4.0%	5.6%
Heroin	93.7%	1.6%	.8%	0%	3.2%	0%	.8%
Cocaine/crack	63.8%	17.3%	7.1%	5.5%	4.7%	0%	1.6%
Methadone	96.8%	.8%	.8%	.8%	0%	.8%	0%
Cannabis	19.5%	3.9%	3.1%	2.3%	14.1%	8.6%	48.4%
Ecstasy	58.3%	16.5%	13.4%	7.9%	3.9%	0%	0%
GHB	92.0%	6.4%	0%	0%	.8%	.8%	0%
Acid	65.6%	18.4%	9.6%	4.8%	1.6%	0%	0%
Solvents	98.4%	.8%	.8%	0%	0%	0%	0%
Prescription pills	84.0%	5.6%	2.4%	2.4%	2.4%	2.4%	.8%
PCP	97.6%	1.6%	.8%	0%	0%	0%	0%
Mushrooms	63.2%	19.2%	9.6%	6.4%	.8%	0%	.8%
Other psychedelics	96.2%	1.9%	1.9%	0%	0%	0%	0%
Crystal methamphetamine/speed	81.6%	5.6%	3.2%	.8%	3.2%	.8%	4.8%
Ketamine	64.8%	9.3%	18.5%	3.7%	3.7%	0%	0%
DXM	94.3%	3.8%	1.9%	0%	0%	0%	0%
Nitrous oxide	92.5%	7.5%	0%	0%	0%	0%	0%
Dipt	100%	0%	0%	0%	0%	0%	0%

Table 6: Hard Drug Use (Past Two Months)

	Minimum	Maximum	Mean	Std. Deviation
Hard drug use (times used in past 30 days)	0.00	9.23	1.12	1.94
N=127				

Mental Health Concerns. Mental health concerns are measured as an index of the total number of mental health concerns each participant has. Participants were asked at wave two, “In the last two months, have you had any of the following health conditions?” The responses categories were ‘yes’ and ‘no’ for the following mental health conditions or concern: eating disorders; depression; flashbacks; anxiety; attempted suicide; self harm; other mental illness. ‘Yes’ responses were scored as 1, and ‘no’ responses as 0. These scores were then added

together to create an index with higher scores indicating a greater number of health conditions.

Table 7 shows the prevalence of mental health concerns among participants; depression, anxiety/panic attacks and flashbacks are the most commonly reported mental health concerns.

Table 8 shows descriptive statistics for the mental health concerns index variable. The mean number of mental health concerns among participants is 3.05, with a standard deviation of 1.73.

Table 7: Mental Health Concerns in Past Two Months

	Yes	No
Eating Disorder	10.1%	89.9%
Depression	53.5%	46.5%
Flashbacks	41.7%	58.3%
Anxiety/ panic attacks	43.3%	56.7%
Attempted suicide	7.1%	92.9%
Slash/ harm yourself	15.0%	85.0%
Other mental illness	10.1%	89.9%

N=129

Table 8: Mental Health Concerns Index

	Minimum	Maximum	Mean	Std. Deviation
Number of mental health concerns	0.00	5.00	3.05	1.73
N=129				

Mental well-being. Mental well-being was assessed by asking participants two questions at wave two: “At the moment, would you say that you are happy?” and “At the moment, would you say that you are hopeful about the future?” Each of these questions was measured using a 6-point scale ranging from 1 (never) to 6 (always). Scores on each of these indicators were weighted equally, averaged and combined into a single score, with higher scores indicating better overall psychological well-being (Cronbach’s alpha= .70). Table 9 shows participants’ responses

to the questions on psychological well-being. 84.6% of participants report that they are usually, almost always or always happy, and 74.2% report that they are usually, almost always or always hopeful about the future. Table 10 shows descriptive statistics for the combined psychological well-being scale. The mean score is 4.52 (on a scale from 1 to 6), with a standard deviation of 1.14.

Table 9: Mental Well-Being

At the moment, are you...	Happy?	Hopeful about the future?
Always	19.5%	35.9%
Almost Always	34.4%	19.5%
Usually	30.5%	18.8%
Some of the time	11.7%	15.6%
Hardly Ever	2.3%	6.3%
Never	1.6%	3.9%
N=130		

Table 10: Combined Mental Well-Being Scale- Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
Mental well-being	1.00	6.00	4.52	1.14
N=130				

Section 4.7 - Statistical Analysis

Survey data were analyzed using IBM SPSS Statistics 21. First, frequency distributions were used to analyze how all variables are distributed (using FREQ VAR in SPSS) and descriptive statistics were estimated (using DESCRIPTIVES VAR in SPSS) to analyze the mean and standard deviation of these variables. Using FREQ VAR and DESCRIPTIVES VAR in SPSS allowed me to assess the perceived availability of social support among participants, as well as the sources of support whom they rely on in times of need.

Next, zero-order correlations were first estimated to examine the direction, strength and significance of the relationship between each of the independent variables with the dependent variables, ignoring the influence of other independent variables. I then conducted multivariate regression analyses using the REGRESSION and LOGISTIC REGRESSION functions in SPSS to test the main and stress-buffering hypotheses of social support (i.e., assess whether and how social support variables, including perceived availability and sources, longitudinally affect substance use and mental health status). This allowed me to attain important information that would not be attained through simple bivariate models; namely, it allowed me to examine the impact of each independent variable on substance use and mental health and well-being, controlling for all other variables in the model, and to estimate the robustness of each model by examining the R-squares. This study uses two different types of dependent variables, continuous and dichotomous, to measure mental health and substance use. For analyses of mental health concerns, mental well-being, hard drug use and alcohol use, ordinary least squares (OLS) regression was employed. For analyses of daily cannabis use, logistic regression was employed. All independent variables (age; gender; sexual orientation; Aboriginal status; visible minority status; lifetime abuse; living situation instability; family as sources of support; friends as source of support; service providers as sources of support; perceived social support) were included in these models. All cases with missing scores on one or more variables were excluded from these analyses.

Two additional models (one for each of the interaction terms between stressors and social support) were estimated for each of the five dependent variables to test the stress-buffering theory (for a total of ten additional regression models). Statistically, a significant interaction term supports the stress-buffering theory of social support.

Section 4.8 - Summary

This chapter describes the methods that were employed for this thesis. Mixed methods data from a panel study of street-involved youth in Victoria, British Columbia were analyzed (N=130). A thematic analysis of semi-structured interview data was employed to gain a nuanced understanding of the context-based nature of social support among participants. Descriptive analyses of closed-ended questions were employed to provide a description of the sources and extent of support among research participants for triangulation with the qualitative results. Zero-order correlations and multivariate regression are employed to examine the temporal relationship between perceived social support (including the extent and sources of support) and five dependent variables: mental health concerns, mental well-being, alcohol use, daily cannabis use, and hard drug use.

Chapter 5: Qualitative Findings

Section 5.0 - Introduction

This chapter presents the findings of the thematic analysis for the qualitative component of this thesis analysis. Section 5.1 presents an overview of the qualitative findings, including the structure of participants' relationships and the supports they are offered through them. Section 5.2 describes the structural aspects of participants' social support networks. Section 5.3 describes the functional aspects of these support networks, including the types and extent of support offered.

Section 5.1 - Overview of Qualitative Findings

This chapter reports the results of the thematic analysis of participant responses to the question, "Tell me about the people in your life whom you like the most..." Of the 185 participants, there were a total of 157 eligible responses, all of which were included in the analysis. In terms of structure, approximately two-thirds of participants discuss relationships with friends, one-third of participants discuss relationships with family members, a small handful of participants discuss relationships with service providers, and a small minority describe themselves as socially isolated. With regards to the function of these relationships, almost all participants indicate that they receive social support through their interactions with these individuals; only a few participants exclusively discuss non-social support-related reasons for liking them, instead focusing exclusively on the personality characteristics of these individuals.

There is considerable diversity among participants in terms of the extent and range of types of social support offered to them through these relationships. Many participants discuss having reliable and/or consistent general support in their daily lives, often mentioning a variety of types of support provided by those whom they like the most, while others emphasize the

support that is available to them in times of need. Some participants focus on the specific type(s) of social support that are offered; emotional support is the most commonly reported type of support, followed by companionship, then instrumental support, and last, informational support. Some participants emphasize the reciprocal exchange of social support between themselves and those in their social networks. Others discuss having certain limitations on the support they receive from those whom they like the most, primarily focusing on their reluctance to seek emotional support from these individuals. Only a few participants describe having minimal social support in their daily lives due to social isolation.

Section 5.2 - Structural Aspects of Social Support

When asked about the people in their lives whom they like the most, twenty-one of the 157 participants speak exclusively about relationships with family members (both immediate and extended); eighty-one participants mention only friends and/or significant others; thirty-three participants discuss relationships with both family and friends or significant others; ten participants mention relationships with service providers (seven of whom also discuss having relationships with friends and/or family members). The remaining twelve participants describe themselves as socially isolated; when asked about whom in their lives they like the most, these participants either do not identify a social network or indicate that they currently have no close or meaningful relationships with other people.

Section 5.3 - Functional Aspects of Social Support

5.3a - Reliable Support

When asked about the people in their lives whom they liked the most, many participants (approximately one third of the sample) comment that they have people in their lives who are “always there” as reliable sources of support. Many of these participants indicate that these

people are immediate family members (particularly parents and siblings) and/or intimate partners or friends. Some participants also mention extended family members or service providers.

The descriptions of those who are ‘always there’ varies among these participants. Some describe these people as those they can rely on to support them through difficult situations or in times of need. Scott³ (age 15) describes his mom as someone who has always been there to help him with difficulties as much as possible:

My mom. She’s always been there for me. She’s never given up, and every time I get into trouble or into a hard situation she’s always there to help me get out of it, and just do the best she can just to be there for me.

Similarly, Michelle (age 15) describes her sister as someone who is “always there” to help her in times of need, saying, “My sister ‘cause she’s always there for me. Like if I missed the last bus she’ll come pick me up and drive me out to [name of suburb of Victoria]. She- she always helps me out when I’m in trouble.” Scott also describes his girlfriend as dependable in difficult situations, commenting, “I’ve been good friends with her for a long time, even before hand, so she was still there for me like every time something went wrong. I could just call her up.”

Several participants comment that they view their friends as family because they can rely on them in times of need. For example, Jill (age 15) says of her friends, “They’re like brothers and sisters. It’s like family... They’re there for me and if I ever have trouble I know I can go to them. And if I’m in the middle of trouble I could just yell their name and they’d be there right away.” Similarly, Anna (age 15) suggests that because her friends have been more reliable sources of support than her family in times of need, she now views them as more like family than her biological family members. When asked about whom she likes the most, Anna responds,

³ Real names are not provided.

Well it'd be my friends 'cause when I was growing up my family and I weren't really that close...so I would spend a lot more time with my friends and so like somehow they became my family and that was who I cared about a lot more and it was just who I held closer to my heart... 'Cause like you know how like some people with their families they're so close and their family's there for them?... Well when I was having troubles and stuff it wasn't my parents that were helping me out; it was my friends.

While most participants name family or friends as dependable sources of support when facing difficult situations, several participants indicate that service providers are "always there" for them when they need help. For example, when asked about the people in her life whom she likes the most, Cassandra (age 18) responds,

My youth worker from [name of community organization]. I love her. We get along really well and when anything happens I can phone her. And then I just- I was in court last Monday for- I'm charging a guy for [type of criminal offense] ... and so she came with me and I- I just, I have a lot of support.

Like Cassandra, Mia (age 14) also indicates that her counselor is a central source of support in times of need: "She is so amazing. I just-the lady saved my life like five times already...Like and she's just done so much for me."

While some participants focus specifically on those who are there for them in times of need, others describe those who are 'always there' for them as people who they can rely on to be generally supportive in many aspects of their lives, not just in times of need. Many participants indicate that their mothers are willing to do whatever they can to support them. Chad (age 17) says of his mom: "She'll do anything to help me out." Allison (age 18) also speaks of her mom, and suggests that recently she has come to appreciate all that she does to support her:

It took me a long time to realize how much I love my mom and how much she's done for me and, I don't know, like when I was younger I guess- I guess I resented her. I didn't really realize how much she did for me and how much I loved her.

Also speaking of her mother, Melissa (age 17) emphasizes that despite her mother's difficulties, she has always been a reliable, caring presence in her life: "Well my mom, she has her problems but everybody has something, right? And she- she's always like took care of me and like, even though I wasn't really living with her at the time, but she-she's always been there."

Like the participants who indicate that the friends who help them in times of need are like family, several participants suggest that the friends they can rely to be generally supportive in their daily lives are like family. Kaitlyn (age 18) comments, "[Name of friend] because I can go to him for anything and I know that he'd be there for me and he-he's like a big brother."

Likewise, Stephen (age 17) says of his best friend, "I consider him a brother to me. I can go to him for anything, and he can come to me with anything." Ryan (age 19) also indicates that he can rely on his friend for general support, emphasizing his loyalty and trustworthiness, saying, "He's like give all or die bro to me. Like he's basically my brother. I wouldn't trade him for anyone and I trust him with my life and I can't say that about anyone."

Many participants detail the multiple ways in which they are supported by those who are "always there" for them. For example, Haley (age 17) suggests that her boyfriend and friend provide her with companionship, as well as instrumental and emotional support:

I'd say my boyfriend right now. He takes good care of me and makes sure I'm okay, and my cousin [name], he'll do anything for me. Yeah, he won't even let me carry my own pack when I'm with him; he'll carry it for me... They're awesome, they're funny, they're

great to hang out with. They always make me feel safe and feel like I'm loved and they're just altogether great people.

Sarah (age 17) also details the numerous ways she has been supported by an older friend who allowed her to live with her, suggesting that the nurturing and love she received allowed her to feel as though she had a second chance at a childhood:

She's just the best. I love her. I don't know. I don't know. She's just-she has the biggest heart. She just wanted to make everything so good for me, everything...Because of my fucked up childhood I'm still-I still have to be a baby sometimes, you know? And she would drive me in a car before bed time to put me to sleep. In my room, and this was when I was like twelve or thirteen, and she'd play with my hair. She got to tickle my arm, tickle my back before I'd fall asleep, right and she'd read me books. It was the best. That was like- she was the one who did my- she's like- she redid my childhood for me, so much better.

Participants tend to describe those who are reliable sources of support as loving individuals who genuinely care about them. Kaitlyn (age 18) says of her friend,

I feel really protected when I'm around him and I feel very cared for and I feel very um, like, I feel s-, like surrounded, I feel surrounded by love. I do. I really do. Like it's really weird when I'm around him. It's like I feel really- like I feel special and I feel like there's somebody there that actually like cares about me and that, you know?

Chelsea (age 18) distinguishes her family members from other people in her social network as caring individuals: "They just care about me and are nice to me." Mark (age 18) comments that his girlfriend is one of the few people in his life who has shown him genuine love and affection, remarking that she stands out because, "I think it's that she loves me back. Like she's one of the

only people that I can remember who actually loves me back.” Janine (age 17) emphasizes the kind-hearted nature of her grandmother, saying, “She’s a wonderful, wonderful lady. She’s got the best heart ever, and she’s always there when I need her. And probably one of my good, like best, best friends from back home.”

Many participants who indicate that they have reliable sources of support in their lives suggest that the love and support offered by these individuals is unconditional. These participants tend to emphasize that despite their past detrimental behaviour, these individuals, particularly parents, have been a stable, caring presence in their lives. Scott (age 15) comments that “My mom’s- she’s never given up, right, out of all this stuff like I’ve- and all the shit I’ve put her through in her life, right, and never given up on me.” Similarly, Samantha (age 17) emphasizes the dedication of her mother in loving and caring for herself and her siblings:

My mom’s pretty- definitely dedicated. She- she never really just like you know gave- gave up on us or anything like that, you know? No matter how- how many times I got in trouble, you know, she’d always hear my side of the story so, you know, so I definitely have to say my parents are like- they’re like, you know, they definitely did a good job, as far as I’m concerned.

While most of these participants refer to parents and other family members, several participants emphasize that their friends provide them with unconditional support. Speaking of his friends, David (age 16) comments, “They never give up on me. They always keep trying... even if I really screwed up.”

While these comments suggest that these youth have received stable support from particular family members and friends in the past and present, several youth comment that they also believe that the supports offered by these relationships will remain stable in the future.

Speaking of his girlfriend and mom, Will (age 17) remarks, “They’re always gonna be there for me. They’re not- never gonna let me down what-. No matter what I do, whatever I say, they’ll never let me down” Chris (age 17) echoes this sentiment, saying, “[My parents] stuck by me when I was a little shithead and whatever. They’ll still stick by me.” Tanya (age 18) uses the examples of her street-involvement and substance use to illustrate her parents’ ongoing dedication in supporting her:

They are always- they’ve never given up on me ever. You know like, they know I live in Victoria, they know I live on the streets, you know, they know I have drug issues and, like, they’ve seen me like at my worst and you know yet they’re still willing to, you know, ‘If you ever need help, you know, call us. If you need somewhere to sleep don’t-like- come down’ you know? ‘If you feel like you need to detox or go to treatment we’ll pay for it.’

Thus, this group of participants describes not only having reliable supportive relationships in their daily lives, but also view these relationships as secure and stable over the long-term, regardless of the circumstances.

Another important related subtheme identified among youth who describe having reliable supportive people in their daily lives is these youth expressing strong feelings of love for these people and describing them as a fundamental or even essential part of their lives. Stephen (age 17) emphasizes the importance of his friends in his life, describing them as essential to his very existence:

All of my friends actually are really important. I’ve never had a group of friends before ever. I was always a loner that was always picked on and stuff because I was different.

Like- yeah, these friends are great. I couldn't live without them, in all honesty...If I did not have these friends I would not be alive.

Likewise, Nancy (age 15) comments that despite the difficulties she and her boyfriend face living on the street, he is a central part of her daily life who motivates her to persevere:

Might be kind of stressful living outside with him but it's worth it. At the end of the day I know I've got something special, something greater than anything, the reason why I keep living...The reason why I stay alive, the reason why I even consider going back to school.

These comments suggest that these youth both recognize and value the important role that these individuals play as reliable sources of support and love in their everyday lives.

5.3b - Consistent Contact

Another important theme in the participants' responses is consistent contact. Approximately one-fifth of participants describe having close relationships in which they maintain regular contact with the people in their lives whom they like the most. Just over half of these participants speak of their friends or significant others, while the rest speak of their immediate family members. Many of these participants mention that they have regular face-to-face contact with these people, often seeing them on a daily or almost daily basis. Several participants comment that they see or "hang out" with their friends, intimate partners or family members "every day". Speaking of his friend, Josh (age 15) states, "Yeah, I've been hanging around [him] for about three years now... I don't think there's been a few days that I haven't seen him." Colby (age 16) indicates that his brother has a consistent presence in his everyday life, commenting, "...Me and him hung out every day for the last like two years – well *almost* every day – we'd hang out like four, five days a week." Like many other participants, Alan (age 18) indicates that his friends are 'always there',

but unlike the other participants, he means it quite literally: “They’re always there for me, they’re always -I see them every day and all they do is try to help each other have a fun time I guess.” Another participant, Kate (age 14), indicates that she has befriended her counselor who she has regular contact with, especially on special occasions:

I don’t even consider her a counselor anymore, she’s my friend...She’s spent every birthday, every Easter, every-even when school’s out she’ll take me out for lunch on- like we went out all summer, all summer break. We went out once a week. Like she’s my friend. I have to go see her; she has a Christmas present for me...I can always count on her. I do miss her.

Her comments suggest that she has come to trust her counselor to be a consistent source of support in her life.

Some participants indicate that while they do not have regular *physical* contact with those whom they like the most, they do maintain regular contact over the phone or through email and online social networking. Allison (age 18) says of her mom: “I keep in contact with her. I phone her once a week, let her know how I’m doing.” Similarly, Alex (age 16) comments: “I talk to my mom on the phone a lot actually.” Jeff (age 17) indicates that despite living away from his girlfriend, they have been able to maintain their relationship through regular contact over email and telephone calls, saying,

We haven’t actually seen each other in probably about six, seven years but, you know, we’ve got telephones and internet... I don’t talk to her that much but we tend to email back and forth on a regular basis. Like I check my email every day, if not a couple times a day, so I hear from her at least every two, three days. And we talk on the phone

probably, I call her maybe every couple months, just so we can have a chat, but it's kind of expensive to be calling long distance collect calls, you know?

Another important related subtheme that was identified in participants' responses is missing those who are reliable or consistent sources of support to them and emphasizing a desire to be in contact with them. Speaking of his girlfriend, Scott (age 15) remarks: "I miss her a lot. It's like every time I'm not with her, I'm always just wishing I was." Similarly, Emma (age 17) comments that she misses her boyfriend any time he leaves her, even when he leaves her for short periods of time to go grocery shopping: "It sucks when he's leaves me alone, man. I'm like, 'Don't leave. Come back!'"

Several participants comment that since they are so accustomed to having regular contact with the people they like the most, it is extremely difficult for them to be away from them. Mia (age 14), who receives substantial emotional support from her counselor, emphasizes how upset she was when she was unable to see her counselor for a few weeks: "She was sick and she was on holidays and I didn't get to see her for like almost- almost a month and I was so lonely for her. I was goin' insane. Like, I need [name of counselor]." Brandon (age 18) comments that he misses his hometown friends so much that he has plans to move back, saying, "I miss them like hell. That's why I'm going back to [name of city]."

Other participants indicate that because the people they like the most have such a consistent presence in their everyday lives, they do not miss them when they are away from them. When asked if she ever misses her friends when they are not around, Brynne (age 18) responds: "Well, they're never not around." Likewise, speaking of her friends, Maria (age 16) responds, "No, not really 'cause I always see them... somewhere- some way of another. I just run into them everywhere". Erin (age 18) emphasizes that because she sees her parents so often,

she only misses them when she is away from Victoria, saying, “Well they’re always around whenever I want to see them but when I go travelling I miss them.” These comments suggests that while it can be difficult for these youth to be away from those whom they like the most, this is a rare experience for them since they have such regular contact with them.

5.3c - Types of Support

Many participants emphasize the specific ways they are supported by those in their lives whom they like the most. The most prominent type of support mentioned is emotional support, followed by companionship support, instrumental support and last, informational support. Some youth focus specifically on one of these types of support, while others indicate that those they like the most in their lives provide them with two or more of these types of support.

Emotional support. Emotional support is the most common type of support participants report having from those in their lives whom they like the most, with approximately half of the participants reporting close, intimate relationships with others characterized by compassion and trust. Most often participants indicate that friends are their principle sources of emotional support. However, family members (particularly parents and siblings) or service providers are also named by many youth as important sources of emotional support.

The most common way participants indicate that they are emotionally supported is by having people in their lives whom they can confide in. Many comment that they have people they can openly talk with about their problems or personal issues. When asked about the people in his life whom she likes the most, Megan (age 18) responds: “Well my mom obviously, ‘cause she’s... really understanding and she’s-she makes it really comfortable if I ever do have a problem to come to her with, it’s totally fine.” Similarly, Jarrett (age 17) indicates that he often

contacts service providers at a community organization when he is having problems, emphasizing how they are always available to listen and talk to him:

I have a couple of workers who work at [name of community organization] and I have their cell phone numbers, so if I ever have any really big problems that I needed someone just to sit there and listen or to talk to and get feedback I can call one of them. And they're always there, always. They're cell phones are on 24-7.

Other participants comment that they have people whom they can talk to when they are feeling upset. Shane (age 17) comments that his sister makes herself available to help him when he is upset: "If I call my sister and said, you know, 'I need to talk,' she'll put things aside and just have a conversation with me." Emily (age 18) also reveals that she can confide in her friend when upset: "He's somebody I can cry on his shoulder and he doesn't care if I get his shirt wet." Another participant, Kaitlyn (age 18), indicates that her mom has intuitive insight into her emotional state, and encourages her daughter to communicate with her when upset:

My mom knows when there's something wrong. Even if I'm just, you know, sitting in my room, talking on the phone and everything seems fine, she'll come in and she'll be like, 'Can you get off the phone?' I'll be like, 'Ah okay', and then she'll be like, 'What's wrong?' And she'll like make me tell her 'cause she knows something's wrong.

Others participants indicate that they have people in their social networks whom they can talk to about "anything" or "everything." Speaking of her friend, Marissa (age 15) comments that there is mutual trust between herself and her friend, and they can openly confide in each other: "Yeah, totally trust her and she totally trusts me. And we tell each other everything. Like there's no secrets." Similarly, Nick (age 18) comments that he and his brother, "talk to each other about pretty much everything."

Andrea (age 17) emphasizes the importance of being able to communicate for her friendship with her two close friends: “I can talk to them about anything and they’ll actually listen... He’s the one friend I can actually keep as my friend.” Likewise, Brandi (age 18) remarks that she can confide in her boyfriend and friends, and vice versa: “I can talk to them about anything and they listen and they say what they feel, and they talk to me too.”

Many participants highlight the central role of intimacy and trust in their relationships with those whom they confide in. When asked about the people in her life whom she likes the most, Danielle (age 18) distinguishes those she confides in from the many acquaintances she has on the streets: “I like to confide in people who I can trust, who are close to me.” Likewise, Jessica (age 16) says of her friends: “They’re trustworthy. I can trust them. I know they won’t screw me over or anything like that... Like if I told them something they wouldn’t go and tell anybody else.” Jane (age 17) focuses more so on the level of closeness between herself and her friends she speaks to regularly about personal issues: “Those are people who I’m very close to.”

Relatedly, other participants emphasize the importance of feeling at ease with those whom they confide in. When asked why she feels she can confide in her close friends, Brittany (age 15) explains, “I think with a lot of them it’s just, we’ve been really honest with each other. And like we can communicate really well. And like we’re really comfortable around each other.” Kara (age 16) details why she feels comfortable confiding in her friends, emphasizing that she trusts them and does not worry about them judging her: “Yeah, you’ve got like trust and you know you can talk to them about anything, and they don’t judge you.” Similarly, Kristina (age 14) explains that her aunt is an important source of emotional support because “we’re really close and she’s understanding” and Tim (age 16) suggests that because his counselor is so understanding, he feels he can confide in him, saying “I talk to him. He talks to

me, very understandable guy. I can be quite open with him.” Dan (age 17) uses an example of a recent criminal charge to demonstrate how understanding and accepting his father is, which encourages him to openly communicate with him: “I can tell pretty much anything to my dad. I don’t care. Like I told him I got caught dealing, you know? It’s okay. He’s really religious but it’s okay. Still, he like takes me for what I am I guess.” Likewise, Carla (age 15), explains that she can openly communicate with her youth worker because she is understanding and a good listener, “Just I get along with her really well. And she listens when I need to talk to her... She understands. Well she tries to understand most of what I’m going through.”

Many participants discuss the positive emotions and outcomes elicited by being emotionally supported by others. Several participants mention that these people improve their mood when they are upset. Sophie (age 16) uses a recent example to demonstrate how her boyfriend always tries to cheer her up when she is feeling down: “Yesterday I was in a really bad mood and he bought me a rose, so he’s good- he’s good to me.” Similarly, Ella (age 16) details how her friends try to make her feel better when she is upset: “They try to cheer me up sometimes and they play the guitar and try having pet-animals, and having singing and stuff.” Similarly, Ryan (age 19) explains that his best friend often uses humour to make him feel better about when he feels down:

We’re always talking each other up when we get down, like, you know, say I just got freshly whooped by the police, he’ll be right there, he’ll be like, ‘You know dude, you looked really stupid when you went down, next time you should scream for your mom.’ Totally did that to me last time, it was cool.

Other participants comment that their social networks include people who make them happy or improve their mood regardless if they are upset or not. Liam (age 17) says of his

girlfriend: “She makes me happy... she’s always got a smile.” Similarly, Ethan (age 17) also comments on how his girlfriend has improved his overall mood, saying, “She... really changed me a lot... really gave me a lot of motivation and a lot of – I used to be always sad... She kind of just brightened up my life.”

Other participants suggest that spending time with those who emotionally support them enhances their self-esteem. When asked why she likes her friends the most, Gina (age 15) responds: “‘Cause when I’m with my friends I feel better... When I’m alone, doing nothing, I just diss myself. When I’m with people, I always like, keep my hopes up...keep my head high, you know?” Similarly, Sophie (age 16) says of her boyfriend, “I feel good about me when I’m around him.” Charlotte (age 16), suggests that when she is upset, her friends both improve her mood and reassure her of her personal worth and abilities:

They tell me- they’re like, ‘You can deal with like this and you can do this.’ And I was like, ‘Good idea.’...And then after they’re like, ‘Come on! Slurpies! It’ll make you feel better.’ Like little things and, just to make me happy.

These comments highlight the important role of emotionally supportive activities in eliciting positive feelings, improving mood and enhancing these youths’ sense of self-worth.

Informational support. A small but noteworthy group of eight participants indicate that they receive informational support, including advice, guidance and knowledge, from those in their social networks whom they like the most. Approximately half of these participants indicate that their friends are sources of informational support, while the remaining participants name significant others or family members, including parents, grandparents, and siblings. Most often, these youth speak of the advice that is given to them by those these individuals. Some participants discuss how they were given advice from friends or family on how to deal with

specific issues. Maria (age 16) discloses how she has sought legal advice from a friend who had previously been involved with the court system. Justine (age 17) comments that her friends offer her valuable advice in times of need:

Whenever I'm in trouble they give me like the best advice that I ever, ever can get from anybody. Pretty much whenever I'm in trouble they give me like the best advice that I ever, ever can get from anybody pretty much.

Similarly, Scott (age 15) comments that he values the advice his girlfriend offers him in difficult situations:

She's always given me good advice, always trying to help me out, work out situations. Every time me and my mom get into an argument, I just call [my girlfriend] up and she's like, 'You'- ah, she just gives me some advice on how to deal with it, and pretty much all the time it works out.

Others comment more generally about the advice they receive from those whom they like the most. Samantha (age 17) appreciates the input and advice of her father because of his worldly perspective and positive attitude:

My dad's got a, like a really good way of looking at things and like he's usually a pretty positive person, and he's been like all over the world and like through [his work] and stuff like that, so I definitely appreciate his input. And he's always had like a pretty, pretty alright say in my life, you know, he's always helped me when I really needed it, stuff like that.

Other participants discuss how they have received informational support from those whom they like the most of in the form of knowledge and skills. For some participants, this was knowledge of a specific topic. Chris (age 17) details how his grandpa taught him a specific trade. Several

other participants indicate that they have individuals in their social networks who have taught them general knowledge or life skills. Speaking of his friend, Ethan (age 17) comments, “He like basically taught me everything I know.” Others discuss receiving informational support as both knowledge and advice. Natalie (age 14) discusses how she appreciates the general knowledge and honest advice given to her by her friend:

He taught me a lot of stuff about like life, and listened to me. Like he was the only person who actually listened to me and would give me the cold hard truth about stuff and he wouldn't like lie to me and like make me believe something that wasn't true, technically making it worse in the end, right? He would like tell me the truth and then I would fix my problems a lot quicker 'cause he'd be like, 'Well that was a stupid thing you did. Why didn't you do this?' And like, 'Go and do this' and I was like, 'Okay.' And I would do it and it would actually make it a lot better, right, so he really, really helped me.

These comments suggest that both advice and knowledge are valued forms of informational support for these street-involved youth.

Instrumental support. Twenty-three participants mention that they receive instrumental support, including housing, money, resources and physical protection from those in their lives whom they like the most. Just under half of these participants name friends as sources of instrumental support while the remainder of participants name family members, intimate partners and/or service providers (in roughly equal groups).

Several participants indicate that they have people in their social networks who support them financially, by giving them money and/or providing them with resources. Brynne (age 18) discloses that even though she does not see him very often, her father regularly deposits money in her bank account, saying, “I don't see him... but he sends me money all the time if I need it.”

Other participants comment that while they were not offered or given money, they are often given resources by those whom they like the most. Several participants mention that their intimate partners and friends give or share daily necessities, such as food and cigarettes. Hannah (age 15) says of her best friend: “[Name of friend]’s always so nice to me and always looking out for me and she shares everything with me.” Others comment that their friends help them with resources in times of need. Charlotte (age 16) comments, “My friend took me shopping ‘cause I had nowhere to stay and I had no clothes. He’s like, ‘We’re going shopping. You need clothes’, and Chad (age 17) reveals that his friend gave him a car to help with transportation to see his family and go to school. Several participants also comment on the resources they receive from foster parents and extended family members. When asked why he likes his grandparents, Ben (age 14) responds, “Cause they like treat me well and they buy me things for Christmas. They love me.”

Eight participants report having been provided with short-or long-term housing from the people in their lives whom they like the most. Short-term housing is typically provided by friends of participants, who allow them to stay in their homes or their parents’ homes when they have nowhere else to stay. Speaking of his friends, Noah (age 15) remarks: “If I needed a place to stay, which most nights I do, they’re- they’re always like offering to let me crash at their place.” Other participants disclose that while their friends do not or cannot invite them to stay in their homes, they help them find alternative temporary shelter. Maria (age 16) explains that, “I think I like my buddy [Name] ‘cause he helps me out and gives me h- he lends me his tent or if he’s not going to be in it, he’ll let me use his tent for the night.”

While friends are described as the main providers of short-term housing, parents, friends’ parents, older extended family members, and other older adults are typically described as the

providers of long-term housing. Evan (age 18) explains that after staying with his girlfriend off and on for a while, “Her parents took me in. I was with her for about four or five months and then her dad just asked me if I wanted to move in.” Another participant explains that after developing a friendship with an older worker at a community organization:

She totally fell in love with me. I love her so much and um, so I ended up living with her for about a year, like she wasn't a foster parent or anything like that, she just, she adopted me and um- I lived with her for like a year. She spoiled me rotten.

The other main form of instrumental support identified in eight participants' responses is physical protection, which is typically offered by friends. Some participants describe having friends who protect them from police or who try to prevent other people on the streets from giving them drugs. However, most participants discuss having friends “who watch their back” and protect them from violent attacks. Zack (age 18) says of his friends: ‘Like if someone’s gonna like try and kill me ‘cause they just want to, they’ll be there to like help me out, you know?’” Similarly, speaking of her best friend, Olivia (age 18) comments, “If anyone ever, ever, ever in a million years did anything to me he’d come running and fuckin’ help.” Several participants describe how having physical protection in times of need enhances their feelings of safety and security on the streets. Alana (age 16) remarks:

My best friend makes me feel really secure, like anything, we could be doing anything, like I don't, I don't like being out at night but if it's really late I can be with him ‘cause he makes me feel safe, He's a really strong guy.

These comments suggest that there are numerous different ways that these youth are instrumentally supported in their daily lives by those whom they like the most.

Companionship support. When asked about the people in their lives whom they like the most, a large group of sixty participants identify having companionship support from those in their lives whom they like the most, describing a sense of belonging to a group that shares similar interests, characteristics, beliefs, recreational activities, past experiences, or social location. The majority of these youth speak of friends and intimate partners as the main providers of companionship support, although a few participants do mention service providers and family members, particularly siblings.

Some participants speak generally about the similarities they have with the people whom they like the most, often referring to common characteristics between themselves and those whom they like the most. When asked why she likes her boyfriend the most, Nancy (age 15) responds, “We have everything in common.” Likewise, Tegan (age 16) comments that she and her friends and boyfriend “have things in common”, while Jennifer (age 17) comments that she loves her sister because she’s like a “mini me...in a lot of ways”. Several participants comment that general similarities between themselves and those whom they like the most promote a deeper connection or bond between them. Speaking of his friend, Stephen (age 17) explains: “I think that they’re on the same level as me and they’re willing to help and they just- we have a good bond I guess.”

Several participants speak of having similarities in terms of personality and general outlook on life. When asked why she likes her friend the most, Brianne (age 16) responds, “Well, I think we think a lot alike. Um, we – we both have the same opinions on things and we just – we work together well.” Similarly, Mia (age 14) comments: “We just had a really close relationship in the sense that we have the same kind of mind set” while Drew (age 18) says that he likes his friend because they have “the same sense of humour”. Several participants suggest that they

have felt a strong connection or chemistry with the people whom they like the most ever since their first time meeting. Marissa (age 15) says of her friend: “Ever since September we’ve been really close friends. Me and her got together one time and we just like clicked” while Emily (age 18) describes how the first time she and her friend met, they “were just having fun and really clicked.”

Other participants emphasize how their bond with those whom they like the most is rooted in their similar interests. Speaking of his girlfriend, Adam (age 18) comments that like him, “She loves to travel and see the world, which I love.” Kate (age 14) emphasizes how she feels a strong connection with her counselor because they have similar interests, saying, “We like all the same music and everything. She’s just the counselor that’s meant to be.”

Others emphasize feeling a strong connection with their friends because they have similar backgrounds or upbringings. Brett (age 17) comments that like him, his best friend had a difficult upbringing: “He’s gone through more than I have but we kind of share the same thing.” Several participants comment that having similar backgrounds or life experiences as their friends has brought them closer, fostering empathy, understanding and trust between them. When asked why she has such a strong bond with her friends, Kelly (age 16) responds:

We can relate on all sorts of different levels because they’ve been through heartache and rough times so and then when I’m in rough times I can talk to them and they’ll know what I’m talking about. And trust too. That’s a big thing for me.

Relatedly, many participants speak of feeling a connection with some individuals in their social networks because they share a similar position in life. Speaking of her friends, Maria (age 16) comments: “I just feel that- I feel in the same position as them.” Likewise, when asked why he likes his cousin the most, Jeremy (age 16) mentions both their similar backgrounds and

current life position saying, “I guess the fact that... he’s experienced the same stuff, he’s gone through the same stuff I’ve gone through.” Several participants comment that having a similar life position as those they like the most also fosters empathy and intimacy between them. Lisa (age 14) discloses that she loves her cousin because “he is and has been and probably will be for a while in my spot. Like he knows exactly where I am, he knows where I am here, he knows where I am here, my head, my mind, my head, my mind, my body, my heart. I mean I am closest to him than I am to almost anybody.”

A large group of twenty-three participants describe feeling a sense of belonging to a group that shares similar recreational activities. Participants report a range of activities that they do with those they like the most. For example, Shane (age 17) talks about skateboarding with his best friend, saying, “We get along, we go skating. It’s just- just- I don’t really- I can’t really explain it. He’s just a good friend I guess” while Brandon (age 18) talks about working together with his friends, “writing for like media, and getting involved in like political action groups”. Other participants speak of playing music or traveling together, while many others speak of “partying” together or just “hanging out” regularly. When asked why she likes her friend the most, Leanne (age 18) responds, “He is pretty easy going and he’s got-he likes to party I guess, and we both like to hang on the streets together. Like we make a good traveling team I’d say.” Similarly, Shannon (age 16) says that her friends are “really fun to hang out with”, while Tegan (age 16) comments that she and her boyfriend “hang out all the time”.

These participants tend to describe their relationships with these individuals who they share activities or “hang out” with as playful and fun. Charlotte (age 16) says of her friends:

They’re so much fun. Like I’ll sit there, I’ll be all sad. They’re like, ‘Come on, let’s go. We’re gonna go get slurpies, we’re gonna go to the beach, we’re gonna go to the park.

Let's go!' Like full of energy, ready to do anything. It's like so much fun.

Similarly, Shawna (age 17) says of her friend, "We like have a lot of fun, just joke around..." and Lindsey (age 17) says of her friends, "We have fun together."

Several participants emphasize that their companions are non-judgmental, understanding and accepting of them, which allows them to feel at ease and enhances their sense of belonging. Speaking of her friends, Tylie (age 16) remarks that her friends are not judgmental or exclusionist: "I like how they don't diss people and they're not mean to how, what they wear or...I don't know, I used to get made fun of a lot when I was little and they've never made fun of me and I've just gotten along with them and stuff." Similarly, speaking of his siblings, Andrew (age 17) comments, "They don't judge me... for who I am and what I do" while Devon (age 17) says of his friends, "They don't judge me. And they can kind of relate to how I feel." Others emphasize that they feel accepted and welcomed by people in their social network. Stephen (age 17) details how he can be himself around his friends without worrying about being put-down or laughed at:

Nothing is too weird for us... Like if we have a question, even if it's something we know everybody else knows the answer to and it's a stupid question or it's just something really embarrassing, that doesn't matter at all, we can just say it—which, which is good. It's a great awesome group of friends I have and I'm so happy.

Likewise, Derek (age 17) comments that he has no inhibitions around his friend because "we could al-always just be completely ourselves". Moreover, Anna (age 15) remarks: "People down here at downtown and stuff... I feel more welcome and more like respected here", indicating that she feels her friends on the streets are more open-minded and welcoming.

Thirty-three participants describe having a sense of belonging that is rooted in a shared history. Some of these participants do not indicate specific past experiences, but instead emphasize having a bond with those whom they like the most because they have known them for an extended period of time. Tara (age 17) explains that she likes two of her friends the most because she has “known them for like forever” while Owen (age 18) says that he is “really good friends with [his best friend]. I’ve known her for years.” Others trace their relationship back to early childhood. Tanya (age 18) says of her friend: “We’ve been like best friends since like we were ridin’ around in these little tiny car things...played fire trucks together” while Adam (age 18) explains that he and his girlfriend have “been together since [he] was a little kid.”

Many of these youth describe growing up and attending school together with the people they like the most. Stephen (age 17) describes how he feels very close to his best friend because they went to the same schools growing up, and were later reunited on the streets, saying, “And it’s weird, ‘cause like when we met we clicked as best friends and then we figured out that we went to that same crappy school together –and it –it was a relief to me because somebody went through that I know of now.” Amber (age 15) also discusses growing up and attending school with her best friend and how this has made them very close:

She’s pretty cool. We’re pretty close. I went to school with her for a while, and yeah, she’s a pretty good friend... We’ve just had so many great times together, like we connect so well, like we’re almost the same person in a way, that’s just how I see it.

Others describe having more recent shared experiences with those whom they like the most. Some participants describe past experiences of travelling together since living on the streets. Julie (age 17) claims that travelling together with her friend has allowed them to learn a lot more about each other than they otherwise would have, commenting, “...Traveling together

for a few months is different than say you live inside and you met this person and you see ‘em twice a week, you know? ... I mean ‘cause we’re with each other twenty-four hours a day.’”

Others suggest that they have connection with friends rooted in past work experiences or living together. Sophie (age 16) comments that she and her friend who just moved away have “been through so much together at work. We had a total connection where it’s like I look at her and she knows exactly what I’m talking about or what I’m thinking about.” Owen (age 18) says of his best friend, “I’ve known her the longest. We had an apartment, lived together for a while”.

Seven participants indicate that they have shared difficult experiences or life challenges with those whom they like the most. Justin (age 18) explains that his friend helped him leave a difficult situation at home to move to Victoria:

He’s the one who got me out of [Name of hometown] away from all the bullshit...It was substance abuse, physical abuse, family abuse, well not physical family abuse but mental...He just appeared, basically called me out of nowhere, came. He’s like, ‘I’m out to Victoria, you’re comin’ with me and if you don’t come with me it’s your own damn loss.’ I’m like, ‘Okay, I’m coming.’

Kimberley (age 14) reveals that her relationship with her friend developed in their early teen years when they shared a lot of the same challenges: “We’ve known each other since grade seven I think. And she’s the one that was always in the bathroom with me, and we were depressed together and stuff, like yeah, we’re still really close.”

Several participants discuss how they left home for the streets around the same time as those they like the most and how sharing the difficulties associated with this change has fostered a deep connection between them. Brendan (age 18) explains that his friend has

been through a lot of the same crap that- we met in ah grade eight and basically took off onto the streets together. And yeah, that's pretty much why I feel real close to him. He's like my- my brother, whenever I've been in any sticky situations on the street or whatever like that, we've handled them together, stuff like that.

Similarly, Marissa (age 15) comments that her best friend lived on the street with her when she first left home:

[She] was the one that was with me when I was gone from home for about a month. She was with me the whole time, and we were sleeping together and, I don't know I just, I love her so much like, I've never had the b-more of best friend than her.

The comments of these participants suggest that going through difficult experiences together has strengthened their bond with their friends.

Among the participants who describe having a sense of belonging or companionship support from those whom they like the most, an important subtheme is describing the durability and/or an expected continuity of their relationships. First and foremost, several youth indicate that the friends whom they have shared difficult past experiences with are like family. This is exemplified in the quote by Brendan shown above, as well as the comments of other youth such as Stephen (age 17), who says of his friend that he has known since elementary that he “consider[s] him a brother”.

Some participants suggest an expected continuity of their relationship with those who provide them with companionship support. Jeff (age 17) comments of his girlfriend: “I think she's gotta be the one 'cause she's always just been around, you know. And I don't really think there is anyone else. Pretty much, she is kind of the one that keeps me going.” Similarly, Lauren (age 18) remarks that she is “deeply in love” with her boyfriend and that “he will always have a

big effect on [her] life”. Other participants imply an expected continuity of their relationship by detailing their future plans with their close friends. Kyle (age 19) describes how he and his girlfriend are going to “try and go get some money together and...try to go to Europe in February.” These comments indicate that these participants have a stable sense of belonging with those whom they like the most.

5.3d - Reciprocity

In their responses, sixteen participants mention having reciprocal support in the relationships with the people whom they like the most. Several participants describe these relationships as generally mutually supportive. Tim (age 16) describes how his siblings are “really important” to him since they all help each other in numerous ways to make up for the lack of support by their parents, and concludes: “We’re all kind of helping out each other and doing what we can.” Speaking of her best friend, Amber (age 15) indicates that they have both supported and helped each other cope with the difficulties associated with living on the streets: “I’m just trying, he’s stuck in a situation like me at the moment, he’s just stuck and ...everything and I’m just trying to help him, he’s just trying to help me.” Similarly, Patrick (age 18) suggests that he can rely on his friend for support in times of need, and vice versa: “He’s just not handling the street too well. He’s not used to it, right? He’s only been on the street a month, so he’s kind of freaking out... We help each other out so, it works.”

Several participants liken the reciprocal exchange of support between themselves and their friends to support among family members. Kristin (age 18) remarks that she and her younger friend rely on each other for support and have a loving, caring relationship:

He's like my little brother. He's so tiny. He's cute. We always says like, 'I love you' when he sees me... He like cares about me and I actually like care about him like a little brother or something, like street family basically.

Similarly, Brynne (age 18) suggests that she and her network of friends are like a family in that they can rely on each other in times of need: "It's like another family, like – a chosen family I guess... Everybody's there for each other when they need them and stuff like that."

Other participants detail the specific ways in which they and those they like the most support one another. Many of these participants speak of reciprocal emotional support in their relationships. Kevin (age 18) comments that he and his brother have a close relationship and confide in each other: "We both talk to each other about pretty much everything." Olivia (age 18) suggests many street-involved youth in Victoria emotionally support one another, listening and helping each other feel better when upset:

It's pretty much just the street youth, because like all of them- they all respect me, they all care for me and, and they all know who I am, somehow, and like, they're always there for me though. Like 'cause I know that if they ever-if I ever walk up to someone and I see them crying on the street, and I'll sit down and I'll talk to them even if I don't know who the hell they are. And like so they- they- they've done that for me a couple times in this last week and just like, I've been just like all by myself, you know, wandering away, and I'll go sit somewhere, and someone will just kind of wander up and be like, 'Hey, what's up?', put their arm around me and be like, 'You don't look too good man.' And that's when I'm like, 'Shut up,' and like two seconds later I'm in tears.'

In their responses, several participants discuss having the mutual exchange of informational support in their relationships with those whom they like the most. Natalie (age 14)

reflects on her relationship with a friend who recently moved away, describing how they would give each other advice when dealing with problems:

He and I would talk a lot about like police and just like random problems and stuff, and we'd just like counsel each other and gave each other like really good advice. And he gave me a lot of like really good advice that's really helped me 'cause, I don't know, he's just really smart.

Cody (age 18), discusses the communal exchange of knowledge between himself and his street-based friends:

The people that I hang out with are the street kids. You know why I hang out with them? So I can teach the new ones, hang out with the ones that have been around as long as I have and generally, street people are a lot wiser than you think. School teaches you knowledge. Living on the street teaches you how to use it.

Lastly, several participants mention the reciprocal exchange of instrumental support in their relationships. Most of these participants focus on reciprocal protection and safety in their relationships with friends. Julie (age 17) comments that she and her friends "watch out for each other." Likewise, Cody (age 18) emphasizes how they help protect each other from potential threats:

That's why everyone looks out for everyone else 'cause you know what, believe it or not, street kid, prime target for someone who wants to steal someone... You can pick up a street kid and no one would know what the hell happened except for another street kid. Go to the police, it's not like they care.

These comments suggest that there is mutual exchange of numerous types of support between street-involved youth and those in their lives whom they like the most.

5.3e - Isolated Youth and Limitations on Social Support

As mentioned above, only twelve participants in the sample describe themselves as socially isolated, which implies that they have minimal social support in their daily lives. The majority of these youth suggest that they are isolated because they either recently relocated to Victoria or their close friends have moved away. When asked about the people in her life whom she likes the most, Diana (age 15) replies: “There’s been a few but most of them aren’t in my life right now cause they’re not- they’re not in Victoria.” Charlie (age 18) comments that while he has met a few people whom he considers friends since moving to Victoria, he has not yet developed any close relationships with them and spends a lot of his time alone: “Right now everybody I know is just acquaintances really. Like I know them enough to say that they’re my friends but I don’t actually hang out with a lot of them because I’m more of a loner.” Similarly, Dustin (age 17) comments that with the exception of his travel companion, he has few close relationships with other people in Victoria:

I don’t really have a whole lot of people. Like I moved here and I know a bunch of people but I don’t really know anyone very well...There’s my traveling partner though and we’ve been getting a lot closer just because we’re traveling together, and we both need someone that does all that stuff, so we try and be there for each other, but that’s not- we weren’t really that close when we left though.

Another participant, Brooke (age 14), comments that her closest friends have recently moved away and consequently, she describes herself as socially isolated:

One person who means a lot to me I haven’t seen all summer...and then another person who like is my main reason for like being here and like being happy and like being who I am ‘cause he taught me a lot of stuff has moved to [Name of city], and I haven’t talked to him for like months, so I’m kind of like- I don’t know if there’s any important people in

my life right now...I have friends and stuff but I don't have any best friend, I'm just like myself with myself, like I'm my best friend right now, which kind of sucks...

Other participants indicate that they are socially isolated because past experiences have led them to become mistrusting of other people. Ian (age 16) remarks: "There's really nobody. Practically all of them are like really cool one time and then all of a sudden one day they'll just totally switch, and totally go against me..." Likewise, Brent (age 17) comments: "I don't really grow attached to anyone anymore" explaining that the last time he had a close relationship with someone, his ex-best friend, he "got screwed" because he "ended up turning his back on me...fuckin' le- left me out on the streets, all my stuff in the garbage."

Several participants do not provide a reason for having few close relationships with others. Carrie (age 17) reveals that her ex-boyfriend was the only person with whom she recently had a close relationship but they "just don't really talk anymore". The remaining socially isolated participants suggest that their isolation is the result of their own actions or choosing. Dylan (age 19) indicates that he has distanced himself from his friends because of his substance use, saying that he "rarely ever talk[s] to them anymore." He explains, "They were like my like sports friends and- friends since elementary...And I - I like - I don't know, they try and get a hold of me, they're willing to talk me but I don't like being seen around 'em 'cause I'm usually high right?" Candice (age 14), emphasizes that she has few close relationships with other people and instead prefers cats as companions, particularly her previous cat who was a travel companion for her but recently ran away:

My cat meant a lot to me 'cause like I guess I'm like- I'm not a people person, so like I have always been like attached to cats a lot or whatever. And I got a cat like not too long ago and she was like my baby, she travelled with me and stuff like that. I'd like carry her

around everywhere and stuff like that...I know it like seems like some stupid cat but I'm like, I guess, she was like my daughter.

These comments suggest that while most of these participants are isolated because either they or their friends have relocated, others are isolated because they are mistrusting of others or choose to distance themselves from people for various reasons.

Of the non-isolated participants (i.e., those who identify having a social network or close relationships with other people), approximately one-fifth of participants suggest that there are certain limitations in the supports they receive from those whom they like the most. Firstly, several participants express frustration with the unreliability or inconsistency in the support offered by their friends or family members who regularly use drugs or alcohol. John (age 14) discusses how even though he can rely on his girlfriend in times of need, they have become more emotionally distant since she began using crystal methamphetamine, commenting that they are "not as tight as we were before... Like she was really into crystal meth and stuff and she just got out of it and ever since I've-we haven't really talked that much." Relatedly, Corey (age 15) comments that he "still likes [his dad] even though he's a drunk" explaining that while he can be emotionally supportive, "sometimes he's too drunk to talk to you."

Other youth emphasize having trust issues which may limit the types of supports they seek and ultimately receive from those in their lives whom they like the most. Sophie (age 16) emphasizes how her trust issues have largely prevented her from forming close relationships with other people. She remarks that apart from her best friend: "I don't really have any friends that I really can trust and put all my feelings into 'cause it's hard to trust people." Bryce (age 15) explains that he no longer relies on his friends for support because he has been let down by people whom he has trusted to be there for him in the past: "I've learned from being here today,

really, you can't really depend on anyone but yourself, really you know, I can't. Everyone's let me down that I've trusted in my life, so I'll just stick with me." Derek (age 17), concurs with this view, emphasizing that because his street-involved friends have betrayed him in the past, he does not believe that any of them can be trusted:

When I was younger, when I was fourteen and fifteen I seemed to think that a whole bunch of people that ah- a bunch of people I thought cared for me really didn't and I kind of replaced the important people with like just, people on the street are pretty much. The people on the streets pretty much just look out for themselves and not for others. And I still see people that get sucked into that whole idea, every once in a while...Like that people on the streets, like all these, 'cause there's so many- there's so many more kids and it's like this whole community, you think that these people like care about you...They're not sturdy people....And they care more about themselves than anyone else.

The barrier to support most commonly reported by participants is their hesitancy to be emotionally open with those in their lives whom they like the most. Brett (age 17) indicates that he does not usually confide in his friends: "I'm not really kind of a come out of the closet kind of person, I don't really share my feelings with people", while Ray (age 15) comments that he prefers to express his feelings in writing with "a pen and paper", adding "I just keep it personal."

Some participants provide reasons for their reluctance to express their thoughts and feelings with other people. Several participants indicate that while they do have friends or family members whom they can talk to when they are upset, sometimes they do not talk to these friends because they feel like they may be inconveniencing or troubling them. Connor (age 18) suggests that because many of his street-involved friends have their own issues or concerns that they are

coping with, he does not want to further burden them with his problems:

I figure, why spread all the crap that I feel to other people when I'm just gonna bring them down, when I can just think about it and deal with it myself. I'd rather not down everyone else and make them feel worse when they have their own shit to deal with.

Likewise, Brian (age 16) reports that he rarely talks to his girlfriend about his problems: "I try not to do that too much just 'cause she – I think she has trouble like opening up... so I don't want to burden her with my things while she seems to have a lot inside."

Other participants express concern about being emotionally vulnerable among people who may not understand their problems. Craig (age 16) suggests that he is hesitant to confide in his foster brothers because they have not experienced the same difficulties as him, so he feels they have difficulty empathizing with him:

They aren't- they don't have a strong mind as I do. Well, that's how I could put it. Like, I- I've seen and learned a lot, right, and like my old foster brothers don't see what I see so it's hard to talk to 'em. I need someone at my level...

Danielle (age 18) reiterates this sentiment, emphasizing how her father has difficulty understanding her problems: "My dad gets frustrated 'cause some of the stuff I say doesn't make sense, like and he's just like, 'What are you talking about?' You know? And he- he thinks all my problems are a little bit over exaggerated." Carrie (age 17), explains that she often regrets opening up to others because she feels they do not understand her. She is thus hesitant to turn to others for emotional support:

I'm not really that guarded of a person but I just don't like telling people things and then afterwards if they don't understand it then I just feel kinda cheated... Like if people ask me about my past and stuff, and if I tell them something and they pretend to understand

and they don't, you can tell, then I just wish I never told them.

Other participants emphasize that while they do confide in those closest to them, they will only discuss certain topics or issues with them. Tanya (age 18) comments that she regularly talks with her brothers but there are "some things I don't talk about." Likewise, when asked if she confides in her friends, Melanie (age 17) responds, "Some of them I do, some of them I just don't want them to know some personal things. I won't let everyone know."

A final limitation on support identified in several participants' responses is that few or none of the people closest to them can improve their mood or self-esteem. Cassandra (age 18) indicates in her response that she has a large support network of family, friends and service providers who are supportive of her in numerous ways. When asked if they make her feel good, she responds: "No one really can. I- I just- I don't like myself very much and no matter what anybody says, I mean it's always the same." Similarly, despite reporting consistent support from her network of friends, Maria (age 16) comments "My friends don't really make me feel good for myself". The above statements suggest that while many of participants describe having generally supportive relationships with those whom they like the most, there are certain limitations or barriers they may reduce their likelihood of feeling fully supported in their daily lives.

Section 5.4 - Summary

This chapter presents the findings of the thematic analysis of semi-structured data on the participants' relationships and the social support they offer. While the majority of participants describe friends or intimate partners as sources of social support, many receive support from family members, and some receive support from service provider. Most participants describe having supportive social relationships. Some participants focus on the specific type(s) of social

support that are offered; emotional support is the most commonly reported type of support, followed by companionship, then instrumental support, and last, informational support. Some participants emphasize the reciprocal exchange of social support in their social networks. Others discuss barriers to or limitations on the support they receive. Only a few participants describe having minimal social support in their daily lives due to social isolation.

Chapter 6: Quantitative Findings

Section 6.0 - Introduction

This chapter presents the findings of the analyses conducted for the quantitative component of this thesis research. Section 6.1 presents an overview of the quantitative findings. Section 6.2 presents descriptive statistics on the availability and sources of social support for participants. Section 6.3 presents the results of the zero-order correlations between independent and dependent variables. Section 6.4 presents the findings of the multivariate linear and logistic regression analyses.

Section 6.1 – Overview of Quantitative Findings

This chapter presents the findings of the analyses of closed-ended data conducted to (1) assess the perceived availability of social support (including the types and sources of support available) with descriptive analyses; (2) test two theories (the main effects and stress-buffering theories) by examining the relationship between social support and mental health, mental well-being and substance use among participants with zero-order correlation and multivariate linear and logistic regression; and (3) examine how sources of social support for street-involved youth impact their health and well-being outcomes with zero-order correlation and multivariate linear and logistic regression. With regards to the first objective of these analyses, the descriptive analyses of closed-ended data on participants' social networks confirm the results of the thematic analysis in two central ways. First, as was found with the thematic analysis, most participants perceive a high degree of social support in their daily lives (i.e., indicate that they receive emotional and informational support from their relationships, that they can rely on others in times of need and that they have family and friends who help them feel safe, secure and happy). Second, similar to the findings of the thematic analysis, the descriptive findings suggest that friends and intimate partners are the primary sources of social support for these youth. However,

many participants rely on family members for support and some rely on service providers. Few participants indicate that there is no one they can rely on in a crisis situation.

With regards to the second and third objectives of this research, the results of zero-order correlation and multivariate linear regression analyses provide some support for the main effects theory of social support; perceived social support is directly, longitudinally predictive of reduced alcohol and hard drug use, fewer mental health concerns, and better mental well-being. The sources of social support for street-involved youth (i.e., family, friends, and service providers) did not have a significant impact on any of these health and well-being outcomes.

Section 6.2 - Descriptive Statistics on Social Support

6.2a - Perceived Social Support

Table 11 presents participants' responses to statements about their perceived availability of social support (for which the responses were '1' (strongly agree), '2' (agree), '3' (disagree), and '4' (strongly disagree)). Just over 6% of participants agree or strongly agree that if something went wrong no one would help them. Eighty percent of participants agree or strongly agree that they have family and friends who help them feel safe, secure and happy. Almost nine out of ten participants agree or strongly agree that there is someone they trust whom they can turn to for advice if having problems. Approximately 16% agree or strongly agree that there is no one they feel comfortable talking about problems with. Approximately 45% agree or strongly agree that they miss a feeling of closeness with another person, while 16.4% of participants agree or strongly agree that people have difficulty feeling close to them. Approximately 88% of participants agree or strongly agree that there are people they can count on in an emergency.

As previously discussed in Chapter 4, participants' overall perceived social support scores were determined by averaging (with equal weight) participants' scores on each of the above seven indicators into a single score. Table 14 shows descriptive statistics for this

combined social support scale. The mean score was 3.1 (on a scale from 1 to 4), with scores ranging from 1.7 to 4.0.

Table 11: Perceived Availability of Social Support

	Strongly Agree	Agree	Disagree	Strongly Disagree
If something went wrong, no one would help me.	2.3%	3.9%	54.3%	39.5%
I have family and friends who help me feel safe secure and happy.	26.9%	53.1%	14.6%	5.4%
There is someone I trust whom I would turn to for advice if I were having problems.	50%	37.7%	9.2%	3.1%
There is no one I feel comfortable talking about my problems with.	3.1%	13.1%	53.8%	30.0%
I miss a feeling of closeness with another person.	10%	35.4%	40.0%	14.6%
People have difficulty feeling close to me.	3.9%	12.5%	51.6%	32%
There are people I can count on in an emergency.	37.7%	50%	10.8%	1.5%

N=130

Table 12: Combined Perceived Social Support Scale Descriptive Statistics

	Minimum	Maximum	Std. Deviation	Mean
Combined Perceived Social Support Scale	1.7	4.0	.47	3.1
N=130				

6.2b - Sources of Social Support

Table 13 presents participants' responses to the question used to measure participants' sources of social support, "Who would you turn to first in any type of crisis situation?" The majority of participants (57%) indicate that they would turn to a friend or intimate partner first in a crisis situation. A substantial minority (35.2%) indicate that they would turn to a family member first, while a small minority of participants (3.9%) indicate that they would first turn to a service provider or that there is no one they would turn to in a crisis situation (3.9%). The responses for

participants' second choice about who they would turn to follow a similar pattern, with friends or intimate partners being the most common response (43.8%), closely followed by family members (38.3%), service providers (13.3%), no one (3.9%), and other (.8%). Participants' third choice follows a quite different pattern than the first two choices, with approximately a third of youth indicating they would turn to service providers (33.95), followed closely by family members (31.5%), a friend or intimate partner (28.2%), and last, no one (6.5%).

As detailed in Section 4.4 (Measures) participants' responses to the question about whom they would turn to first were assigned a score of 3; their second responses were assigned a score 2; and their third responses were assigned a score of 1, with an observed minimum score of zero and maximum score of six for each of the variables (family support, friend support, service provider support). Table 14 shows descriptive statistics for each of these support source variables. With a mean score of 2.73, friend support is the highest among participants, followed by family support with a mean score of 2.04 and last, service provider support with a mean score of .70.

Table 13: Participant Responses- "Who would you turn to first in a crisis situation?"

	First (%)	Second (%)	Third (%)
No one	3.9	3.9	6.5
Family	35.2	38.3	31.5
Friend or Girlfriend/boyfriend	57.0	43.8	28.2
Service Provider	3.9	13.3	33.9
Other	0.0	.8	0.0
Total	100.0	100.0	100.0
N=128			

Table 14: Family, Friend and Service Provider Support Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation
Family Support	0.00	6.00	2.04	1.79
Friend Support	0.00	6.00	2.73	1.62
Service Provider Support	0.00	4.00	.70	.97
N=128				

Section 6.3 - Zero-order Correlations

Prior to conducting multivariate regression analyses, zero-order correlations were first estimated to examine the direction, strength and significance of the relationship between each of the independent variables with the dependent variables, ignoring the influence of other independent variables. The bivariate correlation matrix (see Appendix B) indicates that there is a negative correlation between sexual orientation and number of mental health concerns ($r = -.27, p < .01$). This suggests that heterosexual participants have a fewer number of mental health concerns than non-heterosexual participants. Additionally, perceived social support at wave one is negatively correlated with number of mental health concerns at wave two ($r = -.24, p < .05$), indicating that as perceived social support increases, number of mental health concerns decreases. There is also a positive correlation between perceived social support at wave one and mental well-being at wave two ($r = .44, p < .001$), indicating that as perceived social support increases so too does mental well-being. Perceived social support at wave one is negatively correlated with alcohol consumption at wave two ($r = -.23, p < .05$), indicating that as perceived social support increases, alcohol consumption decreases. Gender is negatively correlated with daily cannabis use ($r = -.22, p < .05$), indicating that females are significantly less likely than males to be daily cannabis users. Perceived social support at wave one is negatively correlated with hard drug use (logged) at wave two ($r = -.28, p < .01$), indicating that as perceived social support increases, hard drug use decreases. Visible minority status is also negatively correlated with hard

drug use at wave two ($r=-.25, p<.01$), indicating that those who identify as a visible minority are significantly less likely to use hard drugs than those who do not identify as a visible minority.

Section 6.4 - Multivariate Regression Results

6.4a - Mental Health Concerns

Table 15 presents the findings obtained for the OLS regression model with mental health concerns as the dependent variable, the coefficient of determination (i.e., overall model fit) (R^2), as well as the unstandardized regression coefficients (and corresponding standard errors), standardized regression coefficients and significance levels for each of the independent variables. The coefficient of determination for the model (R^2) is .20, while the adjusted R^2 is .11, indicating that the model accounts for about 11% of the variation in the dependent variable.

Sexual orientation ($t=-.2.32, p<.05$) and perceived social support ($t=-2.84, p<.01$) are the only two variables that have a significant effect on the dependent variable, number of mental health concerns at wave two. Unstandardized coefficients indicate the predicted change in the dependent variable given a one-unit change in the independent variable, while controlling for the other independent variables included in the model. The unstandardized regression coefficient for sexual orientation ($b=-.65, p<.05$) indicates that there is a predicted .65 decrease in number of health concerns at wave two for heterosexual street-involved youth compared to non-heterosexual street-involved youth, holding all covariates constant.

Perceived social support (at wave one) is negatively associated with number of mental health concerns ($b=-.88, p<.01$); for each one unit increase on the social support scale, there is a predicted .88 decrease in number of health concerns at wave two, holding all other variables constant. The remaining independent variables (age; gender; sexual orientation, Aboriginal status; visible minority status; lifetime abuse; living situation instability; family as sources of support,

friends as sources of support; and service providers as sources of support) do not significantly contribute to the multiple regression model.

Two additional models were estimated with each of the interaction terms (between perceived social support and lifetime abuse, and perceived social support and living situation instability, respectively) and all other independent variables included. I evaluated the respective interaction terms using an F-test. This allowed me to determine if there was a significant increase in the variance accounted for when each of the interaction terms were added to the model. Neither of these F-tests were significant, which indicates that these interaction terms did not have a significant effect on the dependent variable, number of mental health concerns at wave two (see Appendix C for the regression results).

Table 15: OLS Regression Results - Mental Health Concerns

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Age	0.129	0.109	0.121	1.183	0.24
Gender (female=1)	-0.169	0.271	-0.06	-0.622	0.535
Sexual orientation (heterosexual=1)	-0.65*	0.28	-0.234	-2.318	0.023
Aboriginal	-0.308	0.291	-0.1	-1.057	0.293
Visible minority	0.055	0.621	0.009	0.089	0.929
Lifetime abuse	0.143	0.139	0.102	1.032	0.305
Living situation instability	-0.057	0.038	-0.135	-1.484	0.141
Family support	-0.053	0.11	-0.068	-0.483	0.63
Friend support	0.099	0.107	0.114	0.922	0.359
Service provider support	-0.075	0.175	-0.046	-0.43	0.668
Perceived social support	-0.877**	0.309	-0.281	-2.84	0.005
(Constant)	3.035	2.18		1.392	0.167
*p<.05; **p<.01; ***p<.001					
N = 110					
R ² = .20; Adjusted R ² = .11					

6.4b - Mental Well-Being

Table 16 presents the findings obtained for the OLS regression model with mental well-being as the dependent variable. The coefficient of determination for the model (R^2) is .28, while the adjusted R^2 is .19, indicating that the model explains 19% of the variation in the dependent variable.

Two of the eleven independent variables have a significant effect on mental well-being: visible minority status ($t=-2.07$, $p<.05$); and perceived social support ($t=4.34$, $p<.001$). Visible minority status is negatively associated with mental well-being ($b=-1.03$, $p<.05$); on average, participants who identify as a visible minority score 1.03 units lower on the mental well-being scale than those who do not identify as a visible minority, holding all other variables constant. Perceived social support at wave one ($b=1.07$, $p<.001$) is positively related to mental well-being at wave two. With other variables held constant, well-being scores at wave two increase by 1.07 units for each one-unit increase in perceived social support. The remaining independent variables (age; gender; sexual orientation, Aboriginal status; lifetime abuse; living situation instability; family as sources of support; friends as sources of support; service providers as sources of support; and overall social support) did not significantly contribute to the multiple regression model.

Two additional models were estimated with each of the interaction terms (between perceived social support and lifetime abuse, and perceived social support and living situation instability, respectively) and all other independent variables included. I evaluated the respective interaction terms using an F-test. This allowed me to determine if there was a significant increase in the variance accounted for when each of the interaction terms were added to the model. Neither of these F-tests were significant, which indicates that these interaction terms did not have

a significant effect on the dependent variable, mental well-being at wave two (see Appendix C for the regression results).

Table 16: OLS Regression Results- Mental Well-Being

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Age	.021	.087	.023	.237	.813
Gender (female=1)	-.249	.217	-.106	-1.147	.254
Sexual orientation (heterosexual=1)	.179	.224	.077	.797	.427
Aboriginal	.051	.233	.020	.219	.827
Visible minority	-1.031*	.497	-.202	-2.074	.041
Lifetime abuse	-.092	.111	-.078	-.825	.411
Living situation instability	-.025	.031	-.072	-.824	.412
Family support	.150	.088	.228	1.698	.093
Friend support	.129	.086	.178	1.503	.136
Service provider support	.013	.140	.010	.096	.924
Perceived social support	1.072***	.247	.410	4.337	.000
(Constant)	2.289	1.745		1.311	.193
*p<.05; **p<.01; ***p<.001					
N = 110					
R ² = .28; Adjusted R ² = .19					

6.4c – Alcohol Use

Table 17 presents the findings obtained for the OLS regression model with logged alcohol use as the dependent variable. This dependent variable was logged because frequency distribution analyses indicated that it is positively skewed; this transformation was utilized in order to normalize the distribution of the variable, allowing this model to better meet the assumption of normality, which underlies regression.

The coefficient of determination (R^2) is .36, while the adjusted R^2 is .13 indicating that the model explains 13% of the variation in the dependent variable. Perceived social support at wave one is the only variable that has a significant impact on the dependent variable, alcohol use at wave two ($t=-2.18, p<.05$). Perceived social support at wave one is negatively associated with alcohol use at wave two ($b=-.55, p<.05$); with other variables held constant, the reported number of times alcohol was used in the past thirty days decreases by 55% with each one-unit increase on the perceived social support scale.⁴ The remaining independent variables (age; gender; sexual orientation, Aboriginal status; visible minority status; living situation instability; family as sources of support; friends as sources of support; and service providers as sources of support) did not significantly contribute to the OLS regression model.

Two additional models were estimated with each of the interaction terms (between perceived social support and lifetime abuse, and perceived social support and living situation instability, respectively) and all other independent variables included. I evaluated the respective interaction terms using an F-test. This allowed me to determine if there was a significant increase in the variance accounted for when each of the interaction terms were added to the model. Neither of these F-tests were significant, which indicates that these interaction terms did not have a significant effect on the dependent variable, alcohol use (logged) at wave two (see Appendix C for the regression results).

⁴ In such models where the dependent variable has been log-transformed and the predictors have not, the format for interpretation is that dependent variable changes by $100*(\text{coefficient})$ percent for a one unit increase in the independent variable while all other variables in the model are held constant.

Table 17: OLS Regression Results- Alcohol Use (Logged)

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Age	.131	.089	.157	1.462	.147
Gender (female=1)	.163	.222	.075	.734	.465
Sexual orientation (heterosexual=1)	.255	.229	.118	1.114	.268
Aboriginal	.243	.238	.102	1.019	.311
Visible minority	-.415	.508	-.088	-.818	.415
Lifetime abuse	.167	.114	.153	1.471	.144
Living situation instability	.006	.031	.018	.186	.853
Family support	-.075	.090	-.124	-.837	.405
Friend support	-.055	.088	-.081	-.623	.535
Service provider support	-.009	.143	-.007	-.062	.951
Perceived social support	-.551*	.253	-.226	-2.182	.031
(Constant)	1.311	1.783		.736	.464
*p<.05; **p<.01; ***p<.001					
N = 110					
R ² = .13; Adjusted R ² = .03					

6.4d - Daily Cannabis Use

Table 18 presents the findings obtained for the logistic regression model with daily cannabis use as the dependent variable. To evaluate the goodness-of-fit for this logistic regression model, I examined two pseudo R-squares, Cox and Snell's and Nagelkerke's Pseudo R-square measures. Cox and Snell's R² (.12) is based on calculating the reduction in the proportion of unexplained variance after adding independent variables to the model. However, this measure is often difficult to interpret because the maximum possible value can be (and usually is) less than 1.0. The Nagelkerke R² corrects this issue by modifying the Cox and Snell R² (it divides Cox and Snell's measure by its maximum value) (Bewick Cheek & Ball, 2005). This measure is typically higher than the Cox and Snell measure and varies from 0 to 1, making it easier to interpret. However, this measure tends to be lower than traditional ordinary least

squares R^2 measures. The Nagelkerke R^2 for the logistic regression model with daily cannabis use as the dependent variable is .16, indicating that there is a small increase in the proportion of variance explained when compared to the null model with no independent variables.

Two independent variables, gender (Wald=4.97, $p<.05$), and Aboriginal status (Wald=4.19, $p<.05$), have a significant impact on the dependent variable, daily cannabis use at wave two. The odds ratio for gender is .36 ($p<.01$), indicating that male participants are 2.78 times (i.e., $1/.36$) more likely to be daily cannabis users than females. The odds ratio for Aboriginal status is .36 ($p<.001$), indicating that non-Aboriginal participants are 2.78 times (i.e., $1/.36$) more likely to be daily cannabis users than Aboriginal participants. The remaining independent variables (age; sexual orientation, visible minority status; lifetime abuse; living situation instability; family as sources of support; friends as sources of support; service providers as sources of support; and perceived social support) did not significantly contribute to the logistic regression model.

Two additional models were estimated with each of the interaction terms (between perceived social support and lifetime abuse, and perceived social support and living situation instability, respectively) and all other independent variables included. I evaluated the respective interaction terms using a likelihood ratio test. This allowed me to determine if there was a significant increase in the variance accounted for when each of the interaction terms were added to the model. Neither of the likelihood ratio tests were significant, which indicates that these interaction terms did not have a significant effect on the dependent variable, daily cannabis use at wave two (see Appendix C for the regression results).

Table 18: Logistic Regression Results- Daily Cannabis Use

	B	S.E.	Wald	df	Sig.	Exp(B)
Age	-.063	.178	.123	1	.725	.939
Gender (female=1)	-1.014	.455	4.967	1	.026	.363*
Sexual orientation (heterosexual=1)	.049	.462	.011	1	.915	1.051
Aboriginal	-1.021	.499	4.190	1	.041	.360*
Visible minority	-.930	1.021	.831	1	.362	.395
Lifetime abuse	-.053	.228	.054	1	.816	.948
Living situation instability	-.076	.063	1.450	1	.229	.927
Family support	.113	.181	.385	1	.535	1.119
Friend support	.046	.176	.069	1	.793	1.047
Service provider support	.024	.287	.007	1	.933	1.024
Perceived social support	-.768	.514	2.232	1	.135	.464
(Constant)	7.703	3.663	4.423	1	.035	2215.114
*p<.05; **p<.01; ***p<.001						
N = 110						
Cox & Snell R ² = .12; Nagelkerke R ² = .16						

6.4e - Hard Drug Use

Table 19 presents the findings obtained for the OLS regression model with logged hard drug use as the dependent variable. This dependent variable was logged because frequency distribution analyses indicated that it is positively skewed; this transformation was utilized in order to normalize the distribution of the variable, allowing this model to better meet the assumption of normality which underlies regression.

The coefficient of determination (R^2) is .15, while the adjusted coefficient of determination (R^2) is .05, indicating that the model accounts for approximately 5% of the variation in the dependent variable, logged average number of times hard drugs were used in the past thirty days. Two independent variables have a significant association with hard drug use (logged) at wave two: visible minority status ($t=-2.06$, $p<.05$); and perceived social support ($t=-2.62$, $p=.01$). Visible minority status is negatively associated with hard drug use ($b= -.61$, $p<.05$); street-involved youth who identify as a visible minority have a 61% reduction in

the average number of times they used hard drugs in the past thirty days.⁵ Perceived social support at wave one is also negatively associated with hard drug use at wave two ($b=-.38, p=.01$); with other variables held constant, the reported average number of times hard drugs were used in the past thirty days decreases by 38% with each one-unit increase on the perceived social support scale. The remaining independent variables (age; gender; sexual orientation, Aboriginal status; lifetime abuse; living situation instability; friends as sources of support; and service providers as sources of support) did not significantly contribute to the multiple regression model.

Two additional models were estimated with each of the interaction terms (between perceived social support and lifetime abuse, and perceived social support and living situation instability, respectively) and all other independent variables included. I evaluated the respective interaction terms using an F-test. This allowed me to determine if there was a significant increase in the variance accounted for when each of the interaction terms were added to the model. Neither of these F-tests were significant, which indicates that these interaction terms did not have a significant effect on the dependent variable, hard drug use (logged) at wave two (see Appendix C for the regression results).

⁵ In such models where the dependent variable has been log-transformed and the predictors have not, the format for interpretation is that dependent variable changes by $100 * (\text{coefficient})$ percent for a one unit increase in the independent variable while all other variables in the model are held constant.

Table 19: OLS Regression Results- Hard Drug Use (Logged)

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Age	.013	.052	.026	.244	.808
Gender (female=1)	-.075	.129	-.059	-.584	.560
Sexual orientation (heterosexual=1)	.028	.133	.022	.211	.833
Aboriginal	.038	.138	.027	.272	.786
Visible minority	-.606*	.295	-.218	-2.058	.042
Lifetime abuse	-.019	.066	-.029	-.283	.778
Living situation instability	.001	.018	.006	.059	.953
Family support	-.014	.052	-.038	-.261	.795
Friend support	.033	.051	.084	.654	.515
Service provider support	.028	.083	.037	.332	.741
Perceived social support	-.383**	.147	-.268	-2.615	.010
(Constant)	2.580	1.035		2.494	.014
*p<.05; **p<.01; ***p<.001					
N = 110					
R ² = .15; Adjusted R ² = .05					

Section 6.5- Summary

This chapter presents the findings of the quantitative analyses conducted for my thesis research. The descriptive findings on participants' social networks indicate that most participants perceive a high degree of social support in their daily lives and that there is considerable diversity in terms of whom they can rely on for support in times of need. The zero-order correlations indicate that perceived social support is positively correlated with mental well-being and negatively correlated with number of mental health concerns, alcohol consumption and hard drug use. All of these findings held after controlling for other independent variables in the multivariate regression analyses. This provides some support for the main effect theory of social support. The results did not support the stress-buffering theory since neither of the interaction

terms (between perceived social support and lifetime abuse, and perceived social support and living situation instability, respectively) had a significant effect on the dependent variables. The findings of the zero-order correlation and regression analyses indicate that sources of social support (i.e., friends, family, and service providers) do not have a significant impact on the health and well-being of participants.

Chapter 7: Discussion

Section 7.0 - Introduction

While the relationship between social support and health has been extensively examined among general populations of youth, limited research has been conducted on this relationship among street-involved youth. Moreover, the few studies that have examined the link between social support and health and health-related behaviours among street-involved youth have typically relied on cross-sectional data, limiting the ability of researchers to determine the direction of the association between social support and health outcomes. This thesis research aimed to address these knowledge gaps. There were three main objectives of this thesis research. The first was to describe the perceived availability of social support among street-involved youth in Victoria, British Columbia. The second objective was to longitudinally assess two distinct theories of the relationship between social support and health (the stress-buffering and main effect theories) by examining the temporal relationship between key social support indicators and the substance use and mental health and well-being of this subpopulation of youth. The third objective was to examine how sources of social support for street-involved youth (including family, friends, and service providers) impact their later substance use and mental health and well-being. This chapter presents a discussion of the findings of the analyses that were conducted to achieve these research objectives. Section 7.1 summarizes the findings of the qualitative and quantitative findings. Section 7.2 discusses these findings in relation to the previous empirical work.

Section 7.1 - Summary

7.1a - Social Support Among Street-Involved Youth

The first objective of this study was to describe the perceived availability of social support (including the extent, types and sources of social support) among a purposive sample of 130 street-involved youth in Victoria, British Columbia. This involved a thematic analysis of semi-structured interview data as well as an analysis of responses to closed-ended questions to obtain descriptive statistics on perceived social support among participants.

Qualitative findings. The thematic analysis of participants' responses to the open-ended question, "Tell me about the people in your life whom you like the most", suggest that street-involved youth are heterogeneous in terms of the sources, extent, and types of social support that are available to them. With regards to sources of social support, the majority of youth name friends or intimate partners as central sources of support in their everyday lives. However, a large minority of participants discuss the supports that are offered to them by family members, and a small handful of participants discuss having supportive relationships with local service providers. Notably, very few participants describe themselves as socially isolated (i.e., indicate that they have very few or no close relationship with other people).

There is also considerable diversity among participants in terms of the extent of social support they receive in their relationships with those whom they like the most. This diversity may be best conceptualized as continuum of intensity of social support that is available to these youth through their social networks. On the high end of this continuum are the many youth who discuss having reliable and/or consistent overall support in their daily lives. Many of these youth report having people in their social networks whom they can depend on to provide them with a wide range of supports, while others emphasize the consistency in the support they receive from

others. Further down the continuum are youth who do not discuss having reliable or consistent generally supportive relationships with others, but instead emphasize that they can rely on others for social support when facing difficult situations (i.e., in times of need). Moreover, some youth suggest that there are key limitations in the support they receive from those in their social networks. On the far end of the continuum are the few youth who report that they are socially isolated and/or have minimal social support in their daily lives. However, few youth occupy this low end of the continuum, as most participants indicate that they are supported, at least to some extent, by those in their lives whom they like the most.

Participants discuss a variety of types of social support that they receive through their interactions with those in their social networks. The most common type of support mentioned by participants in their responses is emotional support; many youth discuss having intimate, trusting relationships with individuals in their social networks whom they feel comfortable confiding in, and who improve their mood when they are upset. Companionship support is another prominent type of support mentioned by participants in their responses; these youth describe having a sense of belonging with others, usually friends or intimate partners, rooted in similar interests, recreational activities, past experiences, or beliefs. While some of these youth describe their relationships as playful and fun, others emphasize how sharing or having similar past experiences has fostered a deep connection between themselves and their companions. A significant minority of participants discuss receiving instrumental support (including housing, money, resources and physical protection) from individuals in their social networks, and a small but noteworthy group of youth comment that they receive informational support, including advice, guidance and knowledge, from others. Thus, participants' responses suggest that there is

substantial diversity among street-involved youth both in terms of the depth of their relationships and the ways in which they are supported by others.

Quantitative Findings. The results of the analysis of survey data on the social relationships of street-involved youth largely corroborates with the results of the thematic analysis. In response to questions on the perceived availability of social support, most participants indicate that they have supportive social networks comprised of at least one individual whom they feel close to and can confide in about their problems. Moreover, most participants also agree that they have someone whom they can rely on for support in times of need, and that they have family and friends who help them feel safe, secure and happy. These findings confirm the qualitative findings that many street-involved youth perceive a high degree of social support in their daily lives and that there is heterogeneity among street-involved youth in terms of the types of support that are available to them.

Analysis of survey data indicates that there is also substantial diversity in terms of whom street-involved youth rely on for social support. As was found with the thematic analysis, most participants indicate that friends and intimate partners are their primary sources of support in times of need. However, many participants indicate that they can rely on family members for support and a significant minority indicate they can rely on service providers, such as counsellors and youth support workers. Moreover, similar to the findings of the thematic analysis, very few participants indicate that there is no one they can turn to in a crisis situation. Thus, these findings confirm the qualitative findings that street-involved youth have diverse social networks comprised of friends, intimate partners, family members, and service providers who are reliable sources of social support.

7.1b - The Effect of Social Support on Substance Use & Mental Health & Well-Being

The second objective of this research was to test two distinct theories of the relationship between social support and health, the stress-buffering and main effect theories (Cohen & Wills, 1985; Cohen, Gottfried & Underwood, 2000; House, 1981), by examining the temporal relationship between perceived social support and the substance use and mental health and well-being of street-involved youth. The third objective was to examine how sources of social support for street-involved youth impact their later substance use and mental health and well-being. To achieve these objectives, zero-order correlations were estimated and five multivariate regression analyses (four linear models and one logistic model) were conducted to assess the significance, direction and strength of the relationship between these variables.

Overall, the results of these analyses provide partial support for the main effect theory of social support, as perceived social support was found to have beneficial health effects (i.e., predicted reduced levels of alcohol and hard drug use, lower total number of mental health concerns and improved overall mental well-being) for all street-involved youth regardless of their stress levels or adverse life experiences. Specifically, street-involved youth's perceptions of the availability of social support in their lives was found to directly predict their future alcohol and hard drug use and mental health and well-being, both at the bivariate level and when other factors (including fundamental health determinants, such as age, gender, sexual orientation and ethnicity) were included in the analyses. Overall, perceived total social support and alcohol use were negatively associated, indicating that lower initial levels of perceived social support are associated with higher rates of later alcohol use among street-involved youth. Similarly, perceived total social support and hard drug use were negatively associated, indicating that lower initial levels of perceived social support are associated with higher rates of later hard drug use among street-involved youth. Additionally, perceived social support was negatively associated

with future number of mental health concerns, suggesting that street-involved youth with higher initial levels of perceived social support are likely to have a lower number of mental health concerns in the future. Last, perceived social support and mental well-being were positively associated, indicating that street-involved youth with higher initial levels of perceived social support were more likely to have better overall mental well-being in the future. Perceived social support was not significantly related to later daily cannabis use (in neither the bivariate and regression analyses). Thus, there is no evidence of a main effect between social support and being a daily cannabis user.

Overall, the stress-buffering hypothesis was not supported by the findings of this research, as the relationship between social support and these health outcomes did not vary depending on participants' stress levels; neither of the two interaction terms (between perceived social support and lifetime abuse, or perceived social support and living situation instability) had a significant association with any of the five dependent variables (mental health, mental well-being, alcohol use (logged), hard drug use (logged) or daily cannabis use) once added to the regression models. In fact, neither of the two stressors, lifetime abuse and living situation instability, had a significant relationship with any of these dependent variables. Thus, this research provides no evidence to suggest that living situation instability or abuse predict detrimental health outcomes or that social support moderates the relationship between stressors and health.

There were several other noteworthy findings were uncovered in the regression analyses. First, none of the three types of sources of social support (family support, friend support, or agency support) were found to have a significant relationship with later substance use or mental health or well-being. Second, sexual orientation had a significant impact on mental health, with non-heterosexual participants reporting a greater number of mental health concerns. Third, while

initial perceived social support did not significantly predict future daily cannabis use among street-involved youth, gender was found to have a significant effect on daily cannabis use, with males being more likely to be daily cannabis users. Additionally, Aboriginal participants were less likely to be daily cannabis users than non-Aboriginal participants. Last, participants who identify as a visible minority were less likely to use hard drugs than those who do not identified as a visible minority. However, those who identified as a visible minority had poorer mental well-being compared to those who did not identify as such.

Section 7.2 - Relation of Findings to Existing Empirical Literature

The findings this research challenge both the finding of and the assumption underlying much of the previous work in this area that street-involved youth are a socially isolated or excluded population of youth, who tend to have few social relationships and thus receive limited social support (Byrne, 1999; Di Paolo, 1999; Ennet et al. 1999; Gaetz, 2004; Maclean, Embry, and Cause, 1999; Panter-Brick, 2000; Ringwalt et al. 1998; Sleznick, 2004; Webber, 1991; Whitbeck & Hoyt, 1999). The findings of the thematic analysis and descriptive statistics estimated for this research instead suggest that only a small minority of street-involved youth are socially isolated, and the majority perceive a high degree of perceived social support in their daily lives.

Consistent with a small body of recent research (Johnson et al., 2005; Rice, 2010; Tyler & Melander, 2011; Wenzel et al., 2010) the results highlight the considerable diversity among street-involved youth in terms of the sources and types of social support that are available to them. My research extends this scholarship by employing a mixed methods and longitudinal analysis. As a result, my findings offer a nuanced understanding of the ways in which street-involved youth are supported by different individuals in their social networks, as well as the

social context and circumstances in which this support is provided. Moreover, by asking youth about the people in their lives whom “they like the most”, this research draws attention to the aspects of social support are most valued by street-involved youth, including reliability, consistency, emotional depth and a sense of belonging.

The findings of the regression analyses largely correspond with and extend the findings of the limited existing research on the link between social support and health outcomes among street-involved youth, which have generally provided more support for the main effect theory of social support than the stress-buffering theory (Bao et al. 2000; De la Haye et al., 2012; Irwin, LaGory, Ritchey, & Fitzpatrick, 2008; Smart & Walsh, 1993; Taylor-Seehafer et al. 2007; Unger et al., 1998). First, there was a significant negative relationship between social support and number of mental health concerns, which is consistent with previous empirical studies that have also found that street-involved youth with higher levels of social support are more likely to have better mental health, including fewer depressive or psychological symptoms (Bao et al., 2000; Smart and Walsh, 1993; Unger et al., 1998). However, because this research is based on longitudinal data, it extends the findings of previous cross-sectional work by providing evidence of a positive, temporal relationship between initial perceived social support and later mental health. Moreover, my thesis research makes a unique contribution to the literature with the finding of a positive temporal relationship between perceived social support and mental well-being among street-involved youth.

Similar to the findings of previous work (Ennet et al. 1999; Falci et al. 2011; Unger et al. 1998; Wenzel et al. 2010; Zlatevksi 2011), there were mixed findings on the relationship between social support and substance use; while perceived social support was not longitudinally predictive of daily cannabis use among street-involved youth, it did have a negative temporal

relationship with alcohol and hard drug use; youth with higher levels of initial overall social support were subsequently less likely to use alcohol and hard drugs. This finding is consistent with those of several other recent studies that have also found a positive association between social support and substance use (Falci et al., 2011; Zlatevski, 2011).

Previous work suggests that who provides social support to street-involved youth may be an important determinant of their health and well-being; specifically, it is thought that having limited ties to family members may have detrimental health effects for street-involved youth (Bao et al., 2000). Moreover, relying on street-based peers for support is thought to have the potential to improve health and well-being but also increase the likelihood of risky behaviours (Bao et al. 2000; De la Haye 2012; Kidd & Shahar, 2008). However, my thesis research suggests that none of the three types of sources of social support (family; friends; service providers) are longitudinally predictive of substance use or mental health and well-being. This finding, along with the evidence to support the main effect theory of social support, suggests that in terms of health and well-being, it is more important that youth feel supported in their relationships than *whom* they receive support from.

Overall, the findings of my regression analyses provide partial support for the main effect theory of social support, suggesting that access to social support has beneficial health effects (i.e., improved mental health and well-being as well as reduced alcohol and hard drug use) for all street-involved youth, regardless of their stress levels associated with adverse life experiences. Since previous research on the link between social support and health among street-involved youth has almost exclusively relied on cross-sectional data, the longitudinal findings of my research make an additional contribution to the literature in this area by furthering understanding of the direction of the association between social support and health and well-being.

Chapter 8: Conclusions

Section 8.0 - Introduction

The purpose of my thesis research was (1) to describe the social relationships and perceived availability of social support among street-involved youth; (2) to test two prominent theories of social support (the stress-buffering and main effect theories) by examining the temporal relationship between perceived social support and substance use and mental health and well-being for these youth; and (3) to examine how their sources of support impact their substance use and mental health and well-being. I conducted a mixed methods analysis of data collected for an ongoing, five-wave, prospective panel study of street-involved youth in Victoria, British Columbia. There were two central findings of this analysis. First, both the qualitative and quantitative findings suggest that the majority of street-involved youth perceive a high degree of perceived social support in their daily lives, and that there is also considerable heterogeneity in terms of the sources and types of social support that are available to them. Second, the results of the multivariate regression analyses provide partial support for the main effect theory of social support; perceived social support is longitudinally predictive of reduced alcohol and hard drug use as well as fewer mental health concerns and better mental well-being, regardless of stress levels among street-involved youth. In this chapter, I will assess the analytic and empirical strengths and limitations of this research, as well as make suggestions for future research, policy and practice.

Section 8.1 - Strengths and Limitations

My thesis has several key strengths. First and foremost, it partly fills a gap in the literature by longitudinally examining the effect of perceived social support on the health and well-being of street-involved youth. Moreover, multivariate regression analyses allowed for this

assessment to be conducted while controlling for a range of control variables, including fundamental health determinants, such as age, gender, sexual orientation and ethnicity. While these strengths do not allow me to infer causation between social support and health, they do suggest that social support has a direct, temporal association with later substance use and mental health and well-being, independent of other key health determinants. I have considerable confidence in the direction of association from perceived social support to these health outcomes because the health outcomes were measured several months after perceived social support and only refer to the time period after the original observations. However, these health variables may, in some cases, be linked to patterns (in substance use, mental health, and mental well-being) that have been established over time.

My thesis also has several other limitations. First, since the data are drawn from a purposive sample of street-involved youth, the findings are not generalizable to the wider population of street-involved youth in the Victoria Census Metropolitan Area. Another limitation is that the responses to interview questions are based on self-report data and thus may be subject to concerns such as reporting bias; participants may have altered their responses to questions so as to present themselves in a more positive or desirable manner or to avoid possible consequences for reporting certain self-reported behaviours. A final limitation is that only perceived social support (not received or actual social support) was assessed among participants in this research. While perceived social support is typically viewed as a more stable measure of social support, assessing received social support (by asking street-involved youth about specific instances of support) may provide further important information on the opportunities for social support that are available to street-involved youth.

Section 8.2 - Implications of Findings for Future Research, Policy and Practice

There is a need for further research on the relationship between social support and health among street-involved youth, as there is limited existing knowledge on this topic. In particular, while this research provided evidence of temporal association between initial perceived social support and later health outcomes (with several months in between these variables), future research would benefit from examining how the relationship between social support and health holds over a longer period of time; once the five waves of data collection for the *Risky Business?* project is complete, it will be possible to examine how these relationships hold over a time period of a year to several years in total. Additionally, future research in this area would benefit from including multiple measures of social support, including structural measures (e.g., number of contacts in an individual's social network; frequency of contact with certain individuals), as well as numerous functional measures, including measures of received social support. This research would also benefit from the inclusion of additional measures of health and well-being, including physical health. This would further understanding of the specific aspects of social support that may differentially affect various health outcomes among street-involved youth. Third, future research on this topic would benefit from having a comparison group of a general or housed sample of youth; this would allow researchers to further examine how social support (including availability, sources, types and content) varies between these respective groups of youth, and the implications this may have for their health and well-being. Lastly, while this research does not provide evidence of a relationship between sources of social support and health outcomes, future research should examine how additional characteristics of these sources (beyond their relationships with street-involved youth), such as their health behaviours (Kidd & Shahar, 2008), may affect the relationship between social support and health among this population.

The findings of my thesis research may have implications for interventions and policies that aim to improve the health and well-being of street-involved youth. First, the finding that social support is longitudinally predictive of alcohol and hard drug use as well as mental health and well-being suggests that to improve the health and well-being of street-involved youth, greater efforts and resources should be directed toward assisting them to strengthen their existing social support networks and to develop new supportive relationships. However, both the qualitative and quantitative findings of this research suggest that policy makers and program implementers need to be vigilant in ensuring they do not homogenize the experiences of street-involved youth with “one size fits all” interventions. Instead, policies and programs need to be flexible and adapt to the specific needs of street-involved youth. In particular, since this research suggests that it does not seem to matter (in terms of substance use and mental health and well-being) who street-involved youth rely on for social support as long as they feel supported, programs and policies should be focused on assisting street-involved youth to foster or maintain the social relationships that they themselves view as the most beneficial or supportive. These interventions will likely have the greatest benefits for improving the health and well-being of street-involved youth.

Section 8.3 - Concluding Remarks

This research makes several important contributions to the literature on social support among street-involved youth. First, it provides a more nuanced understanding of the diversity among street-involved youth in terms of the availability, types and sources of social support in their daily lives. Additionally, it highlights the significance of this variation for street-involved youth’s health and well-being, as one of the first longitudinal studies to provide evidence of a direct temporal relationship between social support and health and well-being among street-

involved youth. Specifically, perceived social support was found to be longitudinally predictive of reduced alcohol and drug use, fewer mental health concerns and better mental well-being, after controlling for a range of key health determinants.

Thus, while the literature on street-involved youth tends to depict street-involved as a “high-risk population”, who are generally more susceptible to adverse physical and mental health outcomes compared to more advantaged population of youth (e.g., Roy et al., 2004), the findings of this research suggest that there needs to be greater acknowledgement of the resilience of many street-involved youth in forming and maintaining supportive social relationships, which ultimately have a protective impact on their health and well-being. Moreover, while some street-involved youth report low levels of social support in their daily lives, fortunately, social support is a modifiable factor. Thus, there is great potential to improve the health and well-being of these youth through increased policy and program efforts aimed at strengthening and developing their social support networks.

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Appendix C: Multivariate Regression Results with Interaction Terms

Mental Health Concerns

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.616	2.469		1.060	.292
	Age	.131	.110	.123	1.189	.237
	Gender	-.165	.273	-.059	-.607	.546
	Sexual Orientation	-.656	.282	-.236	-2.325	.022
	Aboriginal	-.307	.293	-.100	-1.048	.297
	Visible Minority	.084	.628	.014	.133	.894
	Lifetime Abuse	.499	.980	.356	.509	.612
	Living Situation Instability	-.056	.038	-.134	-1.465	.146
	Family Support	-.051	.111	-.066	-.462	.645
	Friend Support	.094	.108	.108	.863	.390
	Service Provider Support	-.062	.179	-.038	-.346	.730
	Perceived Social Support	-.769	.426	-.247	-1.804	.074
	Perceived Social Support*Lifetime Abuse	-.111	.303	-.260	-.367	.715

a. Dependent Variable: Mental Health Concerns Adjusted R2= .11

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.016	2.328		.866	.389
	Age	.130	.109	.122	1.195	.235
	Gender	-.201	.272	-.072	-.739	.461
	Sexual Orientation	-.685	.281	-.246	-2.437	.017
	Aboriginal	-.296	.291	-.097	-1.019	.311
	Visible Minority	.022	.620	.004	.036	.971
	Lifetime Abuse	.141	.138	.100	1.015	.312
	Living Situation Instability	.299	.294	.715	1.019	.311
	Family Support	-.068	.110	-.087	-.615	.540
	Friend Support	.092	.107	.106	.857	.394
	Service Provider Support	-.126	.179	-.077	-.701	.485
	Perceived Social Support	-.509	.431	-.163	-1.181	.240
	Perceived Social Support*Living Situation Instability	-.111	.091	-.869	-1.222	.225

a. Dependent Variable: Mental Health Concerns Adjusted R2= .12

Mental Well-being

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.515	1.978		1.272	.207
	Age	.020	.088	.022	.227	.821
	Gender	-.251	.219	-.107	-1.150	.253
	Sexual Orientation	.182	.226	.078	.807	.422
	Aboriginal	.050	.235	.020	.215	.830
	Visible Minority	-1.046	.503	-.205	-2.079	.040
	Lifetime Abuse	-.284	.785	-.241	-.362	.719
	Living Situation Instability	-.025	.031	-.072	-.828	.410
	Family Support	.149	.089	.227	1.676	.097
	Friend Support	.132	.087	.182	1.515	.133
	Service Provider Support	.006	.144	.005	.044	.965
	Perceived Social Support	1.014	.342	.388	2.969	.004
	Perceived Social Support*Lifetime Abuse	.060	.243	.167	.247	.805

a. Dependent Variable: Mental Well-being Adjusted R2= .19

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.391	1.879		1.273	.206
	Age	.021	.088	.023	.234	.815
	Gender	-.246	.219	-.105	-1.121	.265
	Sexual Orientation	.182	.227	.078	.805	.423
	Aboriginal	.050	.235	.019	.212	.832
	Visible Minority	-1.028	.500	-.202	-2.055	.043
	Lifetime Abuse	-.091	.112	-.078	-.818	.415
	Living Situation Instability	-.061	.237	-.173	-.257	.798
	Family Support	.151	.089	.231	1.696	.093
	Friend Support	.129	.086	.179	1.501	.137
	Service Provider Support	.018	.145	.014	.128	.899
	Perceived Social Support	1.035	.347	.396	2.980	.004
	Perceived Social Support*Living Situation Instability	.011	.073	.104	.152	.880

a. Dependent Variable: Mental Well-being Adjusted R2= .19

Alcohol Use (Logged)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.657	2.020		.820	.414
Age	.129	.090	.156	1.442	.153
Gender	.160	.223	.073	.717	.475
Sexual Orientation	.260	.231	.120	1.129	.262
Aboriginal	.242	.239	.101	1.010	.315
Visible Minority	-.439	.514	-.093	-.854	.395
Lifetime Abuse	-.127	.802	-.116	-.158	.875
Living Situation Instability	.005	.031	.017	.172	.863
Family Support	-.077	.091	-.126	-.850	.397
Friend Support	-.050	.089	-.075	-.567	.572
Service Provider Support	-.020	.147	-.015	-.134	.894
Perceived Social Support	-.640	.349	-.263	-1.834	.070
Perceived Social Support*Lifetime Abuse	.092	.248	.275	.370	.712

a. Dependent Variable: Alcohol use (Logged) Adjusted R2=.02

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.795	1.914		.415	.679
Age	.131	.090	.158	1.464	.146
Gender	.147	.224	.067	.656	.514
Sexual Orientation	.238	.231	.109	1.028	.306
Aboriginal	.249	.239	.104	1.040	.301
Visible Minority	-.432	.509	-.091	-.848	.398
Lifetime Abuse	.166	.114	.151	1.456	.149
Living Situation Instability	.186	.241	.569	.771	.443
Family Support	-.083	.091	-.136	-.913	.364
Friend Support	-.058	.088	-.086	-.662	.510
Service Provider Support	-.034	.147	-.027	-.233	.816
Perceived Social Support	-.365	.354	-.150	-1.031	.305
Perceived Social Support*Living Situation Instability	-.056	.075	-.564	-.753	.453

a. Dependent Variable: Alcohol use (Logged) Adjusted R2=.02

Daily Cannabis Use

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a						
Age	-.060	.179	.111	1	.739	.942
Gender	-1.008	.455	4.911	1	.027	.365
Sexual Orientation	.035	.462	.006	1	.940	1.035
Aboriginal	-1.024	.500	4.197	1	.041	.359
Visible Minority	-.871	1.027	.718	1	.397	.419
Lifetime Abuse	.795	1.625	.240	1	.624	2.216
Living Situation Instability	-.075	.063	1.408	1	.235	.928
Family Support	.118	.183	.416	1	.519	1.126
Friend Support	.034	.179	.037	1	.848	1.035
Service Provider Support	.050	.293	.030	1	.863	1.052
Perceived Social Support	-.518	.692	.560	1	.454	.596
Perceived Social Support*Lifetime Abuse	-.267	.507	.278	1	.598	.766
Constant	6.757	4.066	2.761	1	.097	860.207

a. Variable(s) entered on step 1: age, Newgender, Newsexorient, aborigin, vismin, W1babuse, livsitbyhand, W1bFamSup, W1bFriendsup, W1bAgencysup, W1aSSScale, sociabuse.

Nagelkerke R2= .16

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a						
Age	-.064	.178	.128	1	.721	.938
Gender	-.994	.457	4.734	1	.030	.370
Sexual Orientation	.077	.464	.027	1	.869	1.080
Aboriginal	-1.032	.500	4.266	1	.039	.356
Visible Minority	-.904	1.022	.782	1	.377	.405
Lifetime Abuse	-.051	.228	.051	1	.822	.950
Living Situation Instability	-.329	.481	.466	1	.495	.720
Family Support	.125	.184	.462	1	.496	1.133
Friend Support	.053	.178	.090	1	.764	1.055
Service Provider Support	.063	.297	.045	1	.832	1.065
Perceived Social Support	-1.035	.724	2.043	1	.153	.355
Perceived Social Support*Living Situation Instability	.079	.149	.282	1	.595	1.082
Constant	8.437	3.924	4.623	1	.032	4616.174

a. Variable(s) entered on step 1: age, Newgender, Newsexorient, aborigin, vismin, W1babuse, livsitbyhand, W1bFamSup, W1bFriendsup, W1bAgencysup, W1aSSScale, socialive.

Nagelkerke R2=.16

Hard Drug Use (Logged)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.969	1.170		2.539	.013
	Age	.011	.052	.023	.219	.827
	Gender	-.078	.129	-.061	-.607	.545
	Sexual Orientation	.034	.134	.026	.252	.801
	Aboriginal	.037	.139	.026	.263	.793
	Visible Minority	-.633	.298	-.227	-2.126	.036
	Lifetime Abuse	-.349	.464	-.542	-.752	.454
	Living Situation Instability	.001	.018	.003	.035	.972
	Family Support	-.015	.052	-.043	-.295	.769
	Friend Support	.038	.051	.096	.740	.461
	Service Provider Support	.015	.085	.021	.181	.857
	Perceived Social Support	-.483	.202	-.338	-2.390	.019
	Perceived Social Support*Lifetime Abuse	.103	.144	.527	.719	.474

a. Dependent Variable: Hard Drug Use (Logged) Adjusted R2=.05

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.570	1.114		2.307	.023
	Age	.013	.052	.026	.243	.809
	Gender	-.076	.130	-.059	-.581	.563
	Sexual Orientation	.028	.134	.022	.206	.837
	Aboriginal	.038	.139	.027	.271	.787
	Visible Minority	-.607	.296	-.218	-2.047	.043
	Lifetime Abuse	-.019	.066	-.029	-.282	.779
	Living Situation Instability	.005	.140	.025	.034	.973
	Family Support	-.014	.053	-.038	-.261	.795
	Friend Support	.033	.051	.084	.648	.519
	Service Provider Support	.027	.086	.036	.315	.753
	Perceived Social Support	-.379	.206	-.265	-1.842	.069
	Perceived Social Support*Living Situation Instability	-.001	.043	-.019	-.026	.979

a. Dependent Variable: Hard Drug Use (Logged) Adjusted R2=.04