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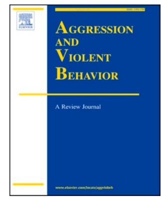

Suicidality in homeless children and adolescents: A systematic review☆

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ABSTRACT

Suicide has been found to be the leading cause of death in the homeless youth population. Mortality rates due to suicide in this cohort can be 12–40 times more elevated than those observed in the general population. Therefore, a systematic review of the literature was conducted in order to investigate potential factors associated with suicidality among homeless children and adolescents. After a thorough investigation of peer-reviewed articles from main databases in this literature (ProQuest and EBSCO), a final number of 94 articles were studied to produce the contents of this systematic review. Factors associated with suicidality were divided into two main categories, namely risk factors and protective factors. The results of this review revealed significant risk factors including gender, sexual orientation, history of abuse, mental health diagnoses, negative coping styles, duration of homelessness, and survival sex. Conversely, this review identified protective factors associated with suicidality among homeless children and adolescents, such as the role of resilience, positive coping strategies, and supportive school environment. Given the impact of suicide rates in this already at-risk population, understanding these factors becomes paramount knowledge related to long-term outcomes for the homeless youth population.

1. Introduction

On a single night in 2019, the United States had roughly 568,000 people facing homelessness (HUD, 2019). However, given the challenge of collecting valid data from this transient population, the actual number is estimated to be even higher (HUD, 2019; Lee et al., 2017; Thompson et al., 2016). The homeless population is under-researched (Gauvin et al., 2019), which presents barriers to understanding how to provide the most effective services to this group. Despite practical research difficulties, one aspect that has been studied is how these individuals survive and thrive while living in poverty. Studies have indicated how persons struggling with homelessness adopt different strategies to cope with daily stressors (Sinyor et al., 2017; Thompson et al., 2011; Toolis & Hammack, 2015).

Throughout the literature, multiple protective and risk factors have been linked to the concept of resilience, henceforth understood as the capacity of individuals to cope successfully with significant change, adversity, or risk (Rew et al., 2001; Ungar, 2004). Social connectedness, religiosity, social support, internal locus of control, and positive emotionality have been found to beneficially effect an individual's resilience (Thompson et al., 2016; Ungar, 2004; Whitbeck, 2009). Qualities often associated with resilience, often referred as "street smarts," tend to appear as homeless individuals learn where to find resources, who to trust while on the street, and social structures along with the street culture economy (Thompson et al., 2011).

Considering that many homeless individuals forfeit hope and seek to end their own lives, studies have focused on examining suicidality in this at-risk population (Lee et al., 2017; McBride, 2012; Sinyor et al., 2017). Research emphasizing the prevalence of mental illness in the homeless adult population evidenced a range from one third to two thirds of the North American homeless population (Brown et al., 2015; HUD, 2019), with at the very minimum one-fourth of those individuals having attempted suicide at least once in their lifetimes (Eynan et al., 2002). Regarding gender differences, studies have suggested 26% of homeless women and 21% of homeless men admitted to failed suicide attempts. As the treatment of mental disorders in this population remains far from ideal, rates of suicidality have increased by almost 12% from 2005 to 2014 (HUD, 2019; Toolis & Hammack, 2015).

Moreover, multiple studies have shown the relationship between coping, suicidality, and experiences of abuse suffered prior to becoming

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homeless to be consistently strong (Thompson et al., 2016). Overall, one factor that was strongly related to suicidality was hopelessness, which is often understood as the perceived absence of hope (Cleverley & Kidd, 2011; Rew et al., 2001). This factor proved to be important irrespective of gender, as both males and females had exhibited lower suicidality when empowered with feelings of hopefulness (Toolis & Hammack, 2015).

Coping strategies are understood as forms of dealing with adverse situations (Kidd & Carroll, 2007), with the construct of "coping" in itself being widely validated (Gauvin et al., 2019). Individual coping strategies highlighted in the literature include ignoring problems, engaging in prayer or meditation, writing, reading, getting involved with music, escaping difficult scenarios while on the street, having a sense of humor, and 'venting' (Thompson et al., 2016). Negative coping mechanisms in the homeless adults included engaging in substance use to cope with difficult situations (e.g., trauma, losing a pet, being arrested) (Okamura et al., 2014). Strategies involving self-mutilation via cutting, burning, piercing, and tattoos were reportedly used to relieve stress and put physical pain on the spotlight in lieu of emotional pain (Thompson et al., 2016).

Mortality rates in the homeless youth can be 12–40 times more elevated than those in the general population (Kidd, 2007), with suicide having been found as the leading cause of death among homeless youth (Roy et al., 2004; Kidd, 2007). Despite receiving less emphasis in literature than their adult counterparts, studies looking at suicidality among at-risk homeless youths have observed a pressing need for more research to focus on this sub-group of homeless individuals (Barr et al., 2017; Kidd et al., 2017). This lacuna in the empirical literature, combined with previous studies claiming a lack of congruency in the measuring of constructs such as suicidal ideation (Thompson et al., 2010), or positive and negative coping strategies (Lynn et al., 2014), leaves a gap in the research focused on compiling relevant information. Therefore, the purpose of this systematic review is to attempt to fill that gap by exploring and summarizing risk and protective factors associated with suicidality, specifically in homeless children and adolescents. Given that many homeless youths continue to maintain their unhoused status and later add to the sub-group of suffering homeless adults (McLean, 2005), understanding the factors associated with suicidality proves a paramount task to ensure long-term benefits for homeless youth and the entire homeless population.

2. Methods

2.1. Selection of studies

An extensive literature review was conducted drawing from two distributors, EBSCO and ProQuest. Keywords utilized in the search were: homeless*, suicid*, adolescen*, and child*. The asterisks were used to allow for a more extensive search, insofar a wider variation of those words could be found in the search engine (e.g., suicide, suicidal, suicidality). Additionally, to search and present updated information, a recency filter was used to ensure only articles dating from the last two-decade span (1999–2019) were discovered. This search on two EBSCO databases (CINAHL and Medline) yielded 107 articles, which after excluding duplicate studies in those two databases resulted in 20 total articles. The review on eight ProQuest databases (PsycINFO, PsycARTICLES, Health & Medical Collection, Psychology Database, Public Health Database, Science Database, Social Science Database, and ERIC) produced 333 articles, which resulted in 240 total articles after removing the duplicates in the eight databases. The ten databases were then crossed by hand to remove duplicates, totaling 74 duplicate articles. The current review was restricted to empirical research published in peer-reviewed journals and did not include qualitative studies or information from grey literature. Subsequently, the final number of articles for this systematic review combining both EBSCO and ProQuest databases was 94.

3. Results

3.1. Risk factors

3.1.1. Gender

Gender differences are often observed in rates of suicidality in the homeless youth population. To that extent, studies have indicated females tend to present with higher rates of both ideation and attempts (Eynan et al., 2002; Hadland et al., 2015; Walls et al., 2009; Yoder, 1999), while males may account for more suicide completions (Walls et al., 2009). Of note, suicide attempts among females often result in more medical help needed in the aftermath than the attempts observed in males, which could be due to males choosing more lethal means (Swahn et al., 2012; Ferguson et al., 2015). Eynan et al. (2002) reported the prevalence of suicidal ideation in females to be as high as 78%, whereas for males a lower number (56%) was observed. In terms of attempts, some studies reported rates in females to vary from 56% to 59%, and in males to vary from 27% to 39% (Eynan et al., 2002; Kidd et al., 2017).

Yoder et al. (2010) suggest that females may present with higher rates even when making the distinction between single attempters and multiple attempters. Among the homeless youths with a history of a single attempt, the distribution of females can be upwards of 70%, and over 60% among multiple attempters (Yoder et al., 2010). Other studies point to smaller differences between females and males, with the former having higher suicide ideation (34%), planning (24%), and attempt (21%) compared to rates reported among males (23%, 19%, and 16% respectively) (Swahn et al., 2012).

Some studies have suggested lifetime rates of suicidality in homeless female youths to be twofold to threefold of those seen in males (Walls et al., 2009), with other authors reporting females being 2.4 times more likely than males to have a history of suicide attempts (Oppong Asante & Meyer-Weitz, 2017). Congruently, one study that created models for gender differences in suicide ideation and attempts found that being female increases the odds of attempting suicide fivefold, even when other variables (e.g., physical health, bulling history, substance use history) are taken into account (Frederick et al., 2012). In addition, Frederick et al. (2012) found the only variable that nullified the impact of being female in the suicidality rates appeared to be mental health diagnosis.

It is important to note that there is research that did not find a significant gender differences in suicidality among homeless youth (Desai et al., 2003; Rew et al., 2001), particularly among suicide ideators (Yoder et al., 2010).

3.1.2. Sexual orientation

One demographic aspect that has warranted the attention of researchers in the area of homeless youth and suicide is sexual orientation. The majority of research suggests that youths identifying as LGBTQ (Lesbian, Gay, Bisexual, Transgender, and Questioning) are at increased risk for facing homeless (Walls et al., 2009), as some studies point to prevalence rates of 56% of homeless LGBTQ adolescents having become homeless after disclosing their sexual orientation to their parents (Rhoades et al., 2018). In addition, almost one in three youths contacting national LBGTQ crisis services program admit to experiencing homeless at some point in their lives (Hadland et al., 2015; Rhoades et al., 2018).

Taking sexual orientation into account becomes of importance, given homeless youths who identify as LBGTQ have displayed higher rates of suicidality than their heterosexual peers (Noell & Ochs, 2001; Walls et al., 2009; Yoder et al., 2010). Homeless sexual minority adolescents are almost three times more likely to have a history of suicide ideation and attempts than the homeless adolescents identifying as heterosexual (Walls et al., 2009). Other studies point to lower yet concerning rates, such as almost 40% of homeless youths identifying as non-heterosexual endorsing suicidal ideation. Moreover, those who reported homosexual

experiences had a prevalence of suicidal ideation of up to 53% (Rohde et al., 2001).

Gender differences in the LGBTQ youth were also observed. To that extent, differences in suicidal ideation rates when participants were of the male gender appeared to be minimal with the prevalence for male youth identifying as gay or bisexual was reported to be 54%, compared to 50% percent of ideation reported among heterosexual males. Similar discrepancies are found in the comparison between female heterosexuals and non-heterosexuals, insofar as 70% of the non-heterosexual sample admitting to suicidal ideation, compared to 62% of the heterosexual group (Noell & Ochs, 2001). Furthermore, differences in suicidal attempts are also present in literature with males identifying as LGBTQ show a 44% lifetime rate, where those identifying as heterosexual presented with a 33% lifetime rate (Kidd et al., 2017). In the female cohort, the rates for those in the LGBTQ group were 52%, while in the heterosexual the rate of suicide attempts was approximately 41% (Noell & Ochs, 2001).

Other studies indicate slightly higher discrepancies among the rates of suicidal attempts. Fifty-four percent of homeless males identifying as gay report at least one instance of suicide attempt, whereas 32% of homeless males identifying as heterosexual admit to a minimum of one suicide attempt in their lifetime (Walls et al., 2009; Whitbeck, 2009). On a similar note, other studies report 20% of homeless youths who had attempted suicide identifying with the LGBTQ community (Hadland et al., 2015).

Suicide attempt rates in the LGBTQ2S (2S meaning “2-spirit”, which is a classification often used in some indigenous populations) were reported to be even higher in those compared to the cisgender groups, insofar as 70% reported suicide attempts compared to 39% in cisgender and heterosexual homeless youths (Kidd et al., 2017).

Another study reported sexual orientation playing a role in suicide ideation among homeless youth classified as single attempters and multiple attempters (Yoder et al., 2010). Non-heterosexual homeless youth presented with higher incidence of multiple attempts than their heterosexual counterparts (Yoder et al., 2010). More specifically, 25.9% of multiple attempters identified as non-heterosexual, compared to 15% of single attempters, 10.1% of suicide ideators, and 6.8% of non-suicidal peers (Yoder et al., 2010).

Despite numerous studies presenting evidence of sexual orientation having significant impacts in lifetime rates of suicidal ideation and attempts, there are studies reporting either little or no difference (Frederick et al., 2012; Rew et al., 2001; Yoder, 1999).

3.1.3. Abuse

The association between abuse and suicidality has been extensively supported by empirical research. In a study that included 208 homeless youth, Kidd and Shahar (2008) found a positive correlation between reported suicide ideation and a history of both physical and sexual abuse and neglect. Regression analysis demonstrated that physical abuse and self-esteem were significant predictors of suicide ideation, accounting for 29% of the variance in suicide ideation (Kidd & Shahar, 2008). In addition to being associated with each other, physical and sexual abuse and neglect were found to be correlated with an assortment of other factors, including fearful and dismissive attachment, throwaway status, loneliness, and feeling trapped. In a study of 398 homeless youth and young adults, reports of trauma, which included physical and sexual abuse and domestic violence prior to becoming homeless and after becoming homeless, was significantly correlated with reported suicide ideation (Barr et al., 2017). This correlation was not observed when comparing these variables to suicide attempts within the same participants (Barr et al., 2017).

When comparing multiple-attempters, single-attempters, ideators, and non-suicidal participants, Yoder et al. (2010) found that multiple-attempters reported higher rates of physical abuse and neglect compared to other comparison groups, while single-attempters reported experiencing higher rates of abuse and neglect compared to non-suicidal peers. Specifically, multiple-attempters were more likely to reported family neglect and family physical and sexual abuse. Single-attempters appeared more likely to have experienced family neglect and family physical abuse compared to non-suicidal peers (Yoder et al., 2010). Ideators did not report abuse-related experiences at a significantly higher rate than non-suicidal youth (Yoder et al., 2010). In a study that included 495 homeless youth aged 14–26, Hadland et al. (2012) found high rates of abuse and neglect, as measured by the Childhood Trauma Questionnaire (CTQ), among participants reporting a suicide attempt within the six months prior to the study. Approximate proportions specific to this sample included, 50% reporting emotional abuse, over 40% reporting physical neglect, 40% reporting physical abuse, over 30% reporting emotional neglect, and between 20%–30% reporting sexual abuse (Hadland et al., 2012).

3.1.4. Mental health disorders

Compared to housed youth, homeless children and adolescent can have up to twice the rate of lifetime psychiatric disorders (Barr et al., 2017; Kamieniecki, 2001; Kidd, 2007). Researchers in Canada (Votta & Manion, 2004) found evidence that almost 40% of homeless youth faced mental health difficulties, whereas 80% have histories of past mental health care (e.g., attending outpatient psychiatric services). Having a psychiatric diagnosis appears to increases the likelihood twofold for suicidal ideation in homeless adolescents (Swahn et al., 2012).

When assessing homeless youth with a diagnosable mental health condition, research has demonstrated that suicide ideation can have prevalence rates of over 70%, whereas attempts can reach prevalence rates of 50% (Eynan et al., 2002; Swahn et al., 2012). Regarding suicide attempts, one study found 52% of homeless youth with psychotic disorder and 42% of those with a mood disorder admitted to having attempted suicide (Eynan et al., 2002). Another study (Votta & Manion, 2004) found that in terms of suicidality, one-fifth of those carrying a mental health diagnosis admitted to attempting to end their lives, while 43% indicated at one point endorsing suicidal ideation, albeit without plan or intent. Of all diagnosis in the DSM, there is some evidence indicating psychotic disorders to have higher risks of suicide attempts among the homeless population (Votta & Manion, 2004). Desai et al. (2003) found that scores on depression and psychosis measures evidenced the highest predictors of suicidal behavior.

A question often posed in literature is whether the psychiatric disorders precede homelessness. As cited in Kamieniecki (2001), culturally sensitive research has been conducted, with a study done in Australia indicating that over 85% of its participants reported a mood, psychotic, and/or substance use history prior to becoming homeless. Another study conducted in London mentioned substance use and psychotic diagnoses preceding the homeless state in over 70% of its participants. Lastly, two studies conducted in St. Louis and San Francisco found that mental health diagnoses were present in 75% and 54% (respectively) of homeless adolescents prior to entering homelessness.

On a similar note, one study (Rohde et al., 2001) indicated that almost three-fourths (73%) of the interviewed homeless youth reported experiencing their first depressive episode prior to becoming homeless. Fifteen-percent of that same sample indicated having the onset of depression concomitantly with the homeless episode of at least one year, and the remaining 12% noted endorsing depressive symptomatology after the homelessness episode (Rohde et al., 2001). Desai et al. (2003) reported that those with history of suicide attempts had recent discharges from inpatient psychiatric programs, or received outpatient psychiatric interventions in the two months prior to the suicide attempt.

Ample evidence in literature highlights the importance of focusing on symptoms of depression in homeless youth who are at risk for suicide. Frederick et al. (2012) found depression to be the only variable that was able to predict both suicide ideation and attempts, irrespective of other variables. There is evidence suggesting that experiencing depression more than doubles the odds of homeless youth endorsing suicidal ideation, while history of self-harm elevates the odds more than

threefold (Frederick et al., 2012).

Depressive symptomatology warranting a diagnosis was highly prevalent in the homeless youth population (Kidd, 2007; Ryan et al., 2000; Swahn et al., 2012). Rates of depression in the homeless youth population have been shown to impact suicidality insofar as one study pointed to 67% of their sample of depressed homeless youth being prone to suicide versus 31% of non-depressed peers from the same sample (Rohde et al., 2001). Votta and Manion (2004) found that homeless adolescents had mean scores on the Beck Depression Inventory (BDI) of 16.32 (SD = 12.88), while non-homeless adolescents had scores of 11.23 (SD = 10.35). To put the scores in perspective, the difference in the mean scores of the BDI equates to the homeless group falling in the mild depression segment (14–19), and the non-homeless falling in the minimal depression segment (0−13).

A number of studies (Yoder, 1999; Rhoades et al., 2018; Kidd, 2006) have found a high incidence of mental health disorders among the homeless youth population. While some indicated posttraumatic stress disorder and depression were among the most common diagnoses (Kidd, 2007), others found the disorders with highest incidence in their homeless youth sample to be Bipolar I or II (26.9%), Schizophrenia spectrum (21.4%), and Depression (20.3%) (Merscham et al., 2009). Surprisingly, PTSD symptoms were only found in 8.2% of the participants within this same study (Merscham et al., 2009). However, there were studies (Barr et al., 2017; Hodgson et al., 2015) placing higher emphasis on the detrimental aspects of PTSD in relation to suicidality. Barr et al. (2017) found that the average number of PTSD symptoms in the homeless youth population is 2.77 (SD = 1.12). The authors reported that PTSD symptoms were the only significant risk factor associated with suicide attempt, whereas having history of trauma without endorsing PTSD symptoms was not a significant predictor of suicide attempts. Similarly, another study (Hodgson et al., 2015) found the highest incidence of mental health condition diagnosed in homeless youth to be PTSD, with 35.6% of participants meeting diagnostic criteria. Generalized Anxiety Disorder followed at 18.9%, Personality Disorders were found in 18.9% of participants, and Major Depression Disorder in 17.8% of the participants (Hodgson et al., 2015). However, when observing lifetime prevalence of the disorders, Major Depressive Disorder appeared to have the highest prevalence with 43.3% of participants meeting diagnostic criteria for the disorder (Hodgson et al., 2015). Homeless youth endorsing comorbid diagnoses involving PTSD, mood disturbances, and/or anxiety issues represented the highest-risk group for suicide (Hodgson et al., 2015).

In a study that analyzed the most prevalent psychiatric diagnoses among the homeless youth with varying degrees of suicidality; namely multiple attempts, single attempts, suicide ideation, and non-suicidal youth, multiple attempters had the highest incidence of mental health disorders (Yoder et al., 2010). Specifically, 51.9% of multiple attempters met criteria for a diagnosis of PTSD, compared to 42.5% of single attempters, 31.8% of suicide ideators, and 15.3% of non-suicidal youth (Yoder et al., 2010). Regarding depression, 46.3% of multiple attempters endorsed depressive symptomatology, 27.3% of ideators, and 15.3% of non-suicidal youth (Yoder et al., 2010). Perhaps contrary to popular belief, carrying a schizophrenia diagnosis does not appear to increase the risk for suicidal behavior, even when the severity of symptomatology is controlled for (Desai et al., 2003).

The presence of depressive disorders is often associated with history of abuse. Children and adolescent who have been exposed to violence prior or after homelessness are at greater risk for suicidality being identified as the highest-risk group (Kidd et al., 2017). Prevalence rates of children and adolescent who recount a history of sexual abuse while reporting depressive symptoms was observed to be 14% (Ryan et al., 2000). When including both sexual and physical abuse, 35% of homeless youth endorsed depressive symptomatology (Ryan et al., 2000). Furthermore, 60% of children and adolescent with depression and history of sexual and physical abuse reported suicide ideation compared to approximately 40% of peers who only reported history significant for one type of abuse (Ryan et al., 2000).

Carrying one diagnosis already poses a risk for suicide. Unsurprisingly, comorbidity was also shown to impact the homeless youth population, with multiple suicide attempters meeting criteria for an average of 2.91 (SD = 1.39) mental health disorders, suicide ideators an average of 2.10 (SD = 1.26), and non-suicidal individuals an average of 1.51 (SD = 1.22) (Yoder et al., 2010). Another study (Hodgson et al., 2015) reported homeless adolescents endorsing either mood, substance, or conduct disorder to have 3.04 (SD = 1.87) comorbid diagnoses, whereas PTSD, mood, and anxiety issues having 5.23 (SD = 2.84) comorbid diagnoses. On the same note, one study (Barrett et al., 2018) pointed to the risk of suicide ideation and attempts being higher for homeless youth who carry dual diagnosis of substance use and another mental health condition, compared to those who did not meet criteria for a dual diagnosis.

One study (Yoder et al., 2007) divided those diagnoses into internalizing disorders (i.e., PTSD and Major Depressive Disorder) and externalizing disorders (i.e., Conduct Disorder, Substance Use), and reported finding confirmatory factor analysis to support the notion that those two types and suicidality were intercorrelated. Furthermore, comorbid diagnoses either in the same group or in-between groups (internalizing or externalizing) showed an even stronger association with suicidal ideation in this population (Yoder et al., 2007).

Other relevant aspects of mental health in homeless youth were also analyzed. Prevalence of mental health diagnoses and suicidality is observed in homeless youth with involvement in gang-related activities. Sixty-two percent of participants who were not involved in gangs reported depressive symptomatology, whereas over 80% of those admitting to be members of gangs endorsed depression; PTSD was present in over 40% of non-involved youth, while over 61% of those involved displayed PTSD symptomatology (Petering, 2016).

3.1.5. Negative coping

The coping style employed by homeless youth has been found to have both beneficial and detrimental effects on overall functioning and wellbeing. The disengagement coping style, studied by (Votta and Manion (2003) and Votta and Manion (2004) and Votta and Farrell (2009) consists of strategies such as behavioral and cognitive avoidance, social withdrawal, and wishful thinking. Homeless male youth reported a higher use of disengagement coping compared to youth accessing services at local drop-in centers (Votta & Manion, 2003). Disengagement coping strategies were also found to be a statistically significant predictor of depressive symptoms and both internalizing and externalizing behaviors among homeless youth (Votta & Manion, 2003). In a subsequent analysis, the use of disengagement coping among homeless male youth was observed to be a positive predictor of suicide ideation and past suicide attempts (Votta & Manion, 2004). Votta and Farrell (2009) explored the association between disengagement coping and depressive symptomatology among homeless adolescent females between the age of 16 and 19. Although homeless female youth did not differ from their housed counterparts in regard to reported use of disengaging or engaging coping strategies, homeless female youth reported more depressive symptoms and poorer self-esteem (Votta & Farrell, 2009). In ensuing analysis, a disengagement coping style served as a statistically significant predictor of reported depressive symptomatology in the “Clinical” range of the Beck Depression Inventory (BDI) and behavior problems as measured by the Youth Self-Report Form (YSR) (Votta & Farrell, 2009).

Kidd and Carroll (2007) observed a significant relationship between maladaptive coping and suicide ideation. Youth who reportedly employed maladaptive coping strategies such as cognitive and behavioral avoidance, social withdrawal, and drug and alcohol use appeared to be at higher risk of suicidality (Kidd & Carroll, 2007). A link was also observed between the use of anger as a coping strategy and the experience of feeling trapped, “suggesting that although it may be perceived as helpful by the youth it is likely indicative of heightened risk” (Kidd &

Carroll, 2007 p.293). Adolescent homeless youth who had reported a suicide attempt were more likely to utilize a nonproductive coping style, with tension reduction and self-blame being utilized more frequently by those participants who reported a history of a suicide attempt (Gauvin et al., 2019). Secondary analysis identified the use of drugs, alcohol, and cigarettes as a significant tension reduction strategy among homeless adolescents who attempted suicide (Gauvin et al., 2019).

3.1.6. Duration of homelessness (chronic vs episodic)

Age of first episode of homelessness was found to pose a risk for suicide among homeless youth. One study found that adolescents who admitted to attempting suicide multiple times became homeless at a slightly younger age (12.88 years-old) than those who had only suicide ideation (13.74 years-old) or those who qualified as non-suicidals (13.78 years-old) (Yoder et al., 2010). Similarly, another study reported that participants who admitted to endorsing suicidal ideation in the past 12 months were younger than those who did not (Frederick et al., 2012). Overall, the older the homeless youth, the lower the risk for suicide attempts (Kidd et al., 2017).

Detriments of homelessness can be observed in children and adolescents as they progress into adulthood. An elevated rate of suicide ideation has been reported in research focused on homeless persons who have a history of becoming homeless prior to the age of 18 (Cleverley & Kidd, 2011; Yoder, 1999). More specifically, one study found over 71% of those who were homeless prior to the age of 18 admitted to suicidal ideation, compared to 54% of those who reported becoming homeless after the age of 18 (Eynan et al., 2002). This reported discrepancy is also evident when considering actual suicidal attempts. Over 40% of those suffering homeless before adulthood admitted to having attempted suicide, contrasted with less than 30% in the population who experienced homelessness after the age of 18 (Eynan et al., 2002; Swahn et al., 2012).

Higher rates of lifetime suicidality have been found to be associated with longer periods of living in the homeless state (Oppong Asante & Meyer-Weitz, 2017). Individuals who experienced homelessness for longer than six months displayed suicidal ideation rates of 73%, compared to 55% in those who had the reported homeless status for less than six months (Eynan et al., 2002). Time spent on the street also appears to indirectly impact suicidality through the construct of resilience. Multiple studies have emphasized the importance of resilience, with one study suggesting subjects who have been homeless for longer periods reported lower rates of resilience (Cleverley & Kidd, 2011). In addition to the predicaments imposed by homelessness itself, there appears to be a stigma related to the amount of time spent on the streets (Kidd et al., 2017). Evidence points to homeless youth experiencing a social stigma based on the total time spent living on the street, with those in a chronic situation being more susceptible to the detriments of that stigma (Kidd, 2006).

3.1.7. Victimization (survival sex)

Exposure to sexual victimization appears to impact rates of suicide ideation and attempts (Kidd, 2006; Swahn et al., 2012; Kidd and Kral, 2002). One study (Gauvin et al., 2019) found that in a sample of unhoused youth ages 12–19, 11% admitted to engaging in prostitution to cope with homelessness. Research conducted in Ghana (Oppong Asante et al., 2016) reported one out of two homeless youths in their sample admitted to trading sex for food, protection, or to obtain a place to sleep. Those engaging in survival sex are reportedly more likely to also engage in substance use, specifically alcohol and marijuana (Oppong Asante & Meyer-Weitz, 2017).

Sex trade while homeless impacts rates of both suicidal ideation (Swahn et al., 2012) and suicidal attempts (Kidd, 2006; Boivin et al., 2005). Homeless youths who reported a history of survival sex presented with an almost threefold rate of suicidal attempts compared to those rates seen in the homeless youths without a history of survival sex (Walls et al., 2009). Some authors found that almost 30% of homeless youths who had attempted suicide multiple times were victims of sexual abuse (Yoder et al., 2010). To put it in perspective, only 8.5% of non-suicidal homeless adolescents admitted to being exposed to sexual victimization (Yoder et al., 2010). Another study (Hadland et al., 2015) found similar results, with over 11% of suicide attempters admitting to trading sex, whereas only 9% of non-attempters had engaged in survival sex.

In terms of gender differences, homeless heterosexual females reportedly accounted for over 60% of homeless youth engaging in sex trading to cope with homeless (Oppong Asante et al., 2016; Walls et al., 2009). On the diversity spectrum, research looking at sexual orientation and sex trade indicates that engaging in survival sex poses a stronger impact on suicidality among the homeless heterosexual youth, compared to the homeless sexual minority youth (Walls et al., 2009). Survival sex appears to have enough negative influence on suicide rates to the point of minimizing the detriments of other variables (e.g., familial abuse or neglect prior to homelessness) (Walls et al., 2009).

Additional studies provide consistent evidence to survival sex playing a role in the risk factor for suicide. One study (Yoder et al., 2010) divided the sample of homeless youth into four subgroups: multiple attempters, single attempters, suicide ideators, and non-suicidal. Participants who had admitted to trading sex were more prevalent in the multiple attempters' subgroup (16.7%) than in any other subgroup (12.5% in the single attempters; 10.6% in the suicide ideators; and 5.1% in the non-suicidal) (Yoder et al., 2010).

3.1.8. Additional risk factors

A variety of additional risk factors have been identified in research studies focused on the experience of homeless youth. In a study of 628 homeless youth and young adults, Walls et al. (2009) found that a history of being in the custody of social services increased the probability of a suicide attempt close to two times the rate compared to those respondents without a reported history of contact with social services. This relationship was found to be stronger among heterosexual participants compared to sexual minority participants as "little difference emerged in predicted probability of reporting an attempt based on whether or not they were ever in the custody of social services" (Walls et al., 2009, p.246). In addition, those respondents who reported a recent mental health hospitalization were 30 times more likely to report a suicide attempt compared to those respondents who did not report a recent mental health hospitalization (Walls et al., 2009).

Stigmatization – whether perceived or self-stigma – appears to have a significant impact on the psychological wellbeing and, consequently, suicidality among the homeless youth population (Kidd, 2007; Oppong Asante et al., 2016). (Kidd (2007)) explored the impact of perceived social stigma among homeless youth and found that the level of experienced stigmatization was significantly related to reported suicide ideation among a homeless population between the age of 14 and 24 years. Utilizing the same measure to assess experienced stigma as Kidd (2007), Oppong Asante et al. (2016) found a significant relationship between self-stigma and social stigma with overall psychological functioning.

Studies have found support for the hypothesis that homeless youth who qualify as throw-aways are at higher risk for suicide attempts (Yoder et al., 2010). Throw-aways are considered those who have been kicked out of the home or stopped from going home by a parent or adult guardian (Slesnick & Meade, 2001). One study (Yoder et al., 2010) found that approximately 92% percent of multiple attempters were "throw-aways," contrasted to 71% of "throw-aways" in the non-suicidal group.

Research by Yoder et al. (2010), reported that participants who endorsed multiple suicide attempts indicated higher rates of exposure to both suicide ideation and completed suicide among friends and family members. For instance, those that had experienced a friend die by suicide were two times more likely to attempt suicide themselves when compared to those who were non-suicidal (Yoder et al., 2010). When the unfortunate scenario happened to a family member, multiple attempters

had almost double the probability than non-suicidal youths (Yoder et al., 2010). Additionally, children and adolescents who had both parents being deceased were significantly associated with suicide ideation (Swahn et al., 2012).

In a study with 505 participants, gang involved homeless youth endorsed higher rates of suicide attempts compared to homeless youth that did not acknowledge being involved with a gang (Petering, 2016). Those participants who stated that they were gang members were observed to experience a rate of suicide attempts 2.5 times higher than non-gang involved peers (Petering, 2016). Specifically, a distinction was made between those participants who identified as gang members compared to those who identified as gang affiliated, with gang membership being associated with increased risk of attempted suicide (Petering, 2016). Frederick et al. (2012) reported that 45% of their sample of homeless youths reported experiencing bullying at school. Among a sample of 150 "street-involved youth" ranging in age from 16 to 21, experiencing bullying at school was found to be a significant predictor of suicide ideation. In a study utilizing data from two separate cohorts (2006 & 2009) totaling 2732 homeless adolescents and young adults, Mackelprang, Harpin, Grubenhoff, and Rivare (2014) found a higher rate of lifetime suicide ideation and attempts among participants who self-reported a history of traumatic brain injury (TBI). Of this sample, 43% reported a history of TBI, with 51% experiencing their first TBI prior to becoming homeless (Mackelprang et al., 2014).

3.2. *Protective factors*

3.2.1. *Resilience*

Resilience and self-esteem have stood out as a prominent protective factor among the homeless population. The results of a study employing a convenience sample of homeless youth suggested that those who express feeling resilient engaged in less suicidal behavior (Rew et al., 2001) Specifically, resilience was negatively correlated with factors including reported hopelessness, perceived loneliness and social support, and the level of reported life-threatening and suicidal behaviors with these factors explaining 54% of the variance in measured resilience (Rew et al., 2001). A study of 227 homeless children and adolescents in Ghana, ranging in age from 8 to 19 years, reported a relationship between resilience and suicide ideation with resilience appearing to serve to mitigate suicide ideation (Oppong Asante et al., 2016). Both resilience and self-esteem were negatively correlated with suicide ideation among homeless youth between 15 and 21 years of age (Cleverley & Kidd, 2011). Regression analysis revealed that 30% of the variance in suicide ideation was accounted for by resilience (Cleverley & Kidd, 2011). Self-esteem accounted for an additional 18% of the variance in suicide ideation (Cleverley & Kidd, 2011). Kidd and Shahar (2008) observed a negative correlation between self-esteem and suicide ideation, stating that self-esteem "served to buffer the impact of fearful attachment on loneliness" (p.169). Additionally, research participants classified as multiple-attempters reported lower self-esteem and higher rates of suicide ideation (Yoder et al., 2010).

3.2.2. *Positive coping*

Utilizing the Developmental Assets Profile to assess individual strength among adolescents, Barnes et al. (2018) found that factors such as positive identity, social competency, and empowerment decreased the probability of reported suicide ideation and attempts among homeless youth with a mean age of 14.9 years. The strength of this relationship among homeless adolescents was found to be weaker than same-aged housed peers (Barnes et al., 2018). Gauvin et al. (2019) found that adolescent homeless youth who had not attempted suicide reported perceiving stronger social support and "more guidance and reliable alliance than did adolescents who had attempted suicide" (p.6) compared to peers who endorsed nonproductive coping strategies such as tension reduction and self-blame. A negative correlation was observed between emotional regulation and awareness and suicide ideation among a group of 398 homeless youth and young adults (Barr et al., 2017). The results appear to support the hypothesis that emotional regulation and awareness may serve to lessen the impact of trauma exposure, thus the development of PTSD symptoms which serve as a risk factor for suicidality among this population (Barr et al., 2017). Kidd and Carroll (2007) observed a decreased risk of suicide ideation among youth who reported believing in a better future as a coping strategy which was based on endorsement of the statement "think about how things will get better in the future" (p.288).

3.2.3. *Additional protective factor*

Utilizing data from 1169 school-attending homeless high school students who completed the California Healthy Kids Survey (CHKS), Moore et al. (2018) found a negative relationship between factors related to a positive school environment and suicide ideation. Factors related to a positive school environment included "caring relationships, high expectations, school connectedness, meaningful participation, and safety" (p.301). Kidd and Shahar (2008) reported a negative correlation between subjective reports of overall health and suicide ideation among homeless youth between the ages of 14 and 24. Although subjective health status was measured using only one questions, the authors reported strong convergent validity for this item in assessing health status. In a study of 133 homeless youth, Slesnick, Kang, and Aukward (2008) found a higher rate of treatment attendance among those participants with a history of a past suicide attempt. This is a significant finding since consistent treatment has been previously shown to serve as a protective factor in suicide completion among adolescent populations.

4. Summary & discussion

The current systematic review identified both risk and protective factors associated with suicidality in homeless youth. The identification and understanding of these factors support the design and implementation of prevention and intervention programs for this vulnerable population. Consistent with empirical research and demographic information related to suicidality among the non-homeless youth populations, this review found that females tend to present with higher rates of both ideation and attempts (Eynan et al., 2002; Hadland et al., 2015; Walls et al., 2009; Yoder, 1999), while males account for more suicide completions (Walls et al., 2009). Demographic data has pointed to the method utilized during a suicide attempt as accounting, in part, for this disparity. The stigma associated with expressing these difficulties and seeking out support and/or treatment has also been suggested as a factor related to this disparity. Homeless male youths appear to be less likely to report a history of suicide attempts compared to females or transgender youth (Walls et al., 2009). Of note, there exist very few studies looking at the rates of suicidality among transgender youth, despite some studies reporting the highest rate of suicidal behaviors within the homeless population among transgender youth (Rhoades et al., 2018). On the other hand, there were few studies reporting no differences in suicidality of the homeless youth based on gender (Desai et al., 2003; Rew et al., 2001; Yoder et al., 2010). Sexual orientation was found to be a risk factor in the trajectory of homeless youths. To that extent, some studies suggest that the influence of sexual orientation on suicidality in the homeless youth population is strong enough to lessen the effect of gender differences in suicidality in the same population (Walls et al., 2009). Homeless sexual minority adolescents appear to be almost three times more likely to have a history of suicide ideation and attempts than the homeless adolescents identifying as heterosexual (Walls et al., 2009). In a recent study, Fulginiti, Rhoades, and Mamey (2020) presented evidence suggesting a connection between minority stress and suicidality among LGBTQ youth. Nevertheless, findings from certain studies included in this review indicated either little or no difference between homeless sexual minorities and homeless heterosexual peers (Frederick et al., 2012; Rew et al., 2001; Yoder, 1999). Regardless, there appears to be a lack of empirical research looking at suicidality in the

LGBTQ youth homeless population and this serves as a key area of investigation for future empirical studies. Numerous studies (Kidd & Shahar, 2008; Yoder et al., 2010; Hadland et al., 2015; Barr et al., 2017) provided evidence supporting an association between a reported history of abuse and/or neglect and suicidality within the homeless youth population. Kidd and Shahar (2008) reported a higher rate of suicide ideation among homeless youth who reported a history of physical abuse. Abuse, both physical and sexual, and neglect also appear to be correlated with other identified risk factors such as throwaway status and feeling trapped (Kidd & Shahar, 2008). In addition, participants who acknowledge attempting suicide multiple times reported higher rates of physical abuse and neglect (Yoder et al., 2010). Higher rates of emotional abuse and neglect also appear to increase the risk of suicidality among homeless youth (Hadland et al., 2012).

Findings indicate that carrying a mental health diagnoses poses a considerable risk to the success of adolescents when they are experiencing homelessness. This finding was consistent with previous empirical research (Fleischmann et al., 2005; Goldston et al., 2009) that specifically identified mood, anxiety, and disruptive behavior disorders as prominent risk factors related to suicidality among non-homeless youth. Compared to housed youth, homeless children and adolescent can have up to twice the rate of lifetime psychiatric disorders (Barr et al., 2017; Kamieniecki, 2001; Kidd, 2007). Rates of comorbidity were observed to reach 70% of homeless youth assessing services (Hodgson et al., 2015). Of note, youth with history of abuse often display higher tendencies to internalize problems, which could in turn contribute to depressive symptomatology and increase the risk of suicidal behavior. Given the difficulty homeless youths find in accessing services, psychiatric disorders often go untreated, which in return increases the risk for suicidality (Barrett et al., 2018). Additionally, the longer youth live in the homelessness state appears to increase the risk for developing a mental health condition, with females reportedly experiencing more considerable trauma from chronic homelessness than males (Kidd et al., 2017).

The coping strategy employed by homeless youth represents a significant factor related to the risk of suicidality. Disengagement, maladaptive, and avoidant coping styles were observed to increase the risk of suicide ideation and attempts among homeless youth. Numerous authors (Votta & Manion, 2003; Votta & Manion, 2004; Votta & Farrell, 2009) presented evidence supporting an association between disengagement coping strategies, depressive symptomatology, suicide ideation and past suicide attempts. The use of anger, tension reduction, and self-blame as coping strategies was also found to be correlated with an increased risk of suicidality (Kidd & Carroll, 2007; Gauvin et al., 2019). Conversely, a number of studies highlighted the negative association between homeless youth suicidality and adaptive coping strategies including positive identity, social competency, and empowerment (Barnes et al., 2018); perceptions of strong social support (Gauvin et al., 2019); beliefs of a better future (Kidd & Carroll, 2007); and emotional regulation and awareness (Barr et al., 2017).

Becoming homeless at a younger age has greater detriments in regard to overall quality of life, higher presence of mental health symptomatology, greater prevalence of substance use, and elevated risk for suicide attempts. In addition, it appears that the more chronic the homelessness span, the higher the chance of having less resilience and higher risk for suicide in the homeless youth population. In other words, the longer they live in homelessness, the higher the risk for the development of mental health symptomatology and subsequent suicidality (Thompson et al., 2010). Homeless heterosexual females account for over 60% of homeless youth engaging in sex trading to cope with homelessness (Oppong Asante et al., 2016; Walls et al., 2009). Sex trade while homeless impacts rates of both suicidal ideation (Swahn et al., 2012) and suicidal attempts (Kidd, 2006). Additional risk factors identified as playing a role in the risk of suicidality among homeless youth included a history of being in the custody of social services (Walls et al., 2009), the experience of stigmatization (Kidd, 2007; Oppong Asante et al., 2016), throwaway status (Slesnick & Meade, 2001; Yoder et al., 2010), exposure to the suicide of another (Yoder et al., 2010), gang involvement (Petering, 2016), bullying (Frederick et al., 2012), and reported history of traumatic brain injury (Mackelprang, Harpin, Grubenhoff, & Rivare, 2014).

In addition to risk factors, a variety of identified protective factors appear to mitigate the risk of suicidality among the homeless youth population. Resilience appears to be a significant protective factor that reportedly demonstrated a negative association with suicide ideation and attempts across multiple studies (Rew et al., 2001; Yoder et al., 2010; Cleverley & Kidd, 2011; Oppong Asante and Meyer-Weitz, 2017). A positive school environment, characterized by a stronger connection with school, was found to have a negative correlation with suicide ideation (Moore et al., 2018). School attendance may serve as a means for homeless youth to connect with treatment and other social services. Perceptions of overall health (Kidd & Shahar, 2008) and higher rates of treatment attendance (Slesnick, Kang, & Aukward, 2008) also appear to impact the reported rate of suicidality among homeless children and adolescents.

4.1. Limitations

A variety of limitations became apparent throughout this systematic review related to the participant characteristics, as well as the research design and methodology of the studies cited. The age ranges of participants differed among the many studies utilized as part of this review. Although a vast majority of participants across all studies were adolescents, the label of "youth" often included young adults and in some cases, adults in their mid to late twenties (Barr et al., 2017; Cameron et al., 2004; Cleverley & Kidd, 2011; Desai et al., 2003; Eynan et al., 2002; Harris et al., 2017; Meltzer et al., 2012; Torchalla et al., 2012). Children under the age of 13 years old appear to be disproportionally represented in the research literature. This may be due to the fact that, in many cases, youth need to be 16 years of age or older to gain access to services within homeless shelters and drop-in centers (Kidd et al., 2017). Sample size and sample characteristics also appeared to be an issue for some studies cited. In some cases, the sample size was small due to the transient nature of the homeless population. Certain studies cited utilized the same sample of participants (Kidd, 2006; Kidd & Carroll, 2007; Kidd, 2007; Kidd & Shahar, 2008; Votta & Manion, 2003; Votta & Manion, 2004). Many studies relied on convenience samples of homeless youth who came in contact with the study based on receiving services through a particular social service agency. The results from convenience samples may not generalize to the entire homeless youth population, specifically those homeless youth who do not seek out assistance from or come in contact with outreach agencies.

Operational definitions of key variables differed across studies sampled for this review, and in some cases, these operational definitions were ambiguous. When employing the specifier "attempted suicide," some studies did not make a proper distinction between a true suicide attempt and alternative means of self-injury reported by homeless youth (Kamieniecki, 2001). The operational definitions of "trauma," "maltreatment," and "abuse," took on many, in some cases interchangeable, forms among the studies included in this review. Overall, these terms may have included physical abuse, sexual abuse, exposure to domestic violence at home and/or while homeless, neglect, victimization, and/or the threat of harm or death (Kidd & Shahar, 2008; Yoder et al., 2010; Hadland et al., 2012; Barr et al., 2017). The situational criteria related to being homeless differed among many studies including the amount of contact with family, the amount of time an individual was homeless, the type of access that participants had to a shelter or temporary housing, general access to resources in the community, and the condition of being kicked out of their homes by a family member or guardian. Although many studies utilized measures with strong psychometric properties, a noticeable number of studies assessed risk and protective factors related to suicidality based on a limited

number of questions or abbreviated measures.

Moreover, regardless of this review including studies from different geographical region within the United States and around the world, there were a limited number of studies addressing this topic from a multicultural perspective, including the empirical study of variables including ethnicity, national origin, and cultural components intrinsic to stigma surrounding suicidality in the homeless population. Studies in other languages other than English were not included in the current review if translations were not available.

The stated purpose of the current review was to survey and summarize currently available empirical studies examining the risk and protective factors related to suicidality in homeless children and adolescents rather than provide new knowledge in these areas via a meta-analytic design. Despite these cited limitations, this systematic review identified an abundance of information that needs to be considered and implemented by professionals working with homeless children, adolescents, and families.

4.2. Recommendations

Since homelessness poses a direct risk for suicidality, it appears that interventions focused on decreasing the structural causes of homelessness (e.g., improving social service programs, availability of subsidized housing) would potentially serve to diminish the risk of suicidality among children and adolescents (Eynan et al., 2002). A screening tool that includes an assessment of the risk factors identified in this systematic review should be incorporated into the standard intake procedure of drop-in centers, shelters, and out-reach programs providing services for homeless children, adolescents, and their families.

In addition to assessing for the risk of suicidality, a comprehensive screening measure assessing risk factors can equip professionals with information needed to make effective referrals for additional services when considered necessary. Several protective factors were identified as part of this review, including resilience (Rew et al., 2001; Cleverley & Kidd, 2011; Oppong Asante et al., 2016), self-esteem (Kidd & Shahar, 2008), social support (Gauvin et al., 2019), empowerment (Barnes et al., 2018), positive school environment (Moore et al., 2018), and emotion regulation and awareness (Barr et al., 2017). The vast majority of screening measures looking at coping mechanisms, for instance, focus on individuals 18 and older. Given the importance of understanding coping mechanisms to decrease suicidality in the homeless youth, it is recommended for future empirical studies to gather individuals from this population (ideally from different cultures) and develop a screening tool normed in homeless persons 18 or younger.

Moreover, homeless youth would benefit from the incorporation of interventions designed to enhance these protective factors as part overall service delivery. Unfortunately, homeless youth are unlikely to make use of mental health services (Cleverley & Kidd, 2011; Coates & McKenzie-Mohr, 2010). Based on a study cited by Selsnick et al. (2008), those youth with a history of attempting suicide have a higher rate of treatment attendance, which highlights the importance of services in lowering suicidality. There is research suggesting that to increase the utilization of those services, the interventions need to take place inside the family shelter system, and/or lower the barriers to accessing those services, such as cost, location, transportation, and health insurance (Lynn et al., 2014). Lastly, Rhoades et al. (2018) calls attention to the use of internet, cellphones, and smartphones among unstably housed youth as a possible road to increasing access to assistance and crisis services.

In terms of research, it is recommended that future studies attempt to bridge the gap between the lack of available data of children and adolescents when compared to adults. The lack of pediatric psychological measures and interventions normed in this population is alarming, and constitutes an area of improvement in which research can impact future rates of adult homelessness – as children and adolescents can receive more adequate help and potentially diminish homelessness rates as they transition into adulthood. As mentioned in previous sections of this systematic review, research looking into family interventions whose children are facing homeless along with parents can prove to have a meaningful, positive impact in the lives of those who are in desperate need of help.

References

Barnes, A. J., Gilbertson, J., & Chatterjee, D. (2018). Emotional health among youth experiencing family homelessness. *Pediatric, 141*, 1–8. https://doi.org/10.1542/peds.2017-1767.

Barr, N., Fulginiti, A., Rhoades, H., & Rice, E. (2017). Can better emotion regulation protect against suicidality in traumatized homeless youth? *Archives of Suicide Research, 21*, 490–501. https://doi.org/10.1080/13811118.2016.1224989.

Barrett, P., Griffin, E., Corcoran, P., O'Mahony, M. T., & Arensman, E. (2018). Self-harm among the homeless population in Ireland: A national registry-based study of incidence and associated factors. *Journal of Affective Disorders, 229*, 523–531.

Boivin, J., Roy, É., Haley, N., & Guillaume Galbaud, D. F. (2005). The health of street youth: A Canadian perspective. *Canadian Journal of Public Health, 96*(6), 432–437.

Brown, S. M., Begun, S., Bender, K., Ferguson, K. M., & Thompson, S. J. (2015). An exploratory factor analysis of coping styles and relationship to depression among a sample of homeless youth. *Community Mental Health, 51*, 818–827.

Cameron, K. N., Racine, Y., Offord, D. R., & Cairney, J. (2004). Youth at risk of homelessness in an affluent Toronto suburb. *Canadian Journal of Public Health, 95*(5), 352–356.

Cleverley, K., & Kidd, S. A. (2011). Resilience and suicidality among homeless youth. *Journal of Adolescence, 34*(5), 1049-1054. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1016/j.adolescence.2010.11.

Coates, J., & McKenzie-Mohr, S. (2010). Out of the frying pan, into the fire: Trauma in the lives of homeless youth prior to and during homelessness. *The Journal of Sociology & Social Welfare, 37*(4), 65–96.

Desai, R. A., Liu-Mares, W., Dausey, D. J., & Rosenheck, R. A. (2003). Suicidal ideation and suicide attempts in a sample of homeless people with mental illness. *Journal of Nervous and Mental Disease, 191*(6), 365-371. doi: http://dx.doi.org.ezproxylocal.library.nova.edu/10.1097/00005053-200306000-00003.

Eynan, R., Langley, J., Tolomiczenko, G., Rhodes, A. E., & al.. (2002). The association between homelessness and suicidal ideation and behaviors: Results of a cross-sectional survey. *Suicide & Life-Threatening Behavior, 32*(4), 418–427.

Ferguson, K. M., Bender, K., & Thompson, S. J. (2015). Gender, coping strategies, homelessness stressors, and income generation among homeless young adults in three cities. *Social Science & Medicine, 135*, 47–55.

Fleischmann, A., Bertolote, J. M., Belfer, M., & Beautrais, A. (2005). Completed suicide and psychiatric diagnoses in young people: A critical examination of the evidence. *American Journal of Orthopsychiatry, 75*, 676–683. https://doi.org/10.1037/0002-9432.75.4.676.

Frederick, T. J., Kirst, M., & Erickson, P. G (2012). Suicide attempts and suicidal ideation among street-involved youth in Toronto. *Advances in Mental Health, 11*(1), 8–17. https://doi.org/10.5172/jamh.2012.11.1.8

Fulginiti, A., Rhoades, H., Mamey, M. R., et al. (2020). Sexual minority stress, mental health symptoms, and suicidality among LGBTQ youth accessing crisis services. *Journal of Youth and Adolescence*.

Gauvin, G., Labelle, R., Daigle, M., Breton, J-J., & Houle, J. (2019). Coping, social support, and suicide attempts among homeless adolescents. *Crisis: The Journal of Crisis Intervention and Suicide Prevention,* 1-10. Advance online publication. https://doi.org/10.1027/0227-5910/a000579.

Goldston, D. B., Daniel, S. S., Erkanli, A., Reboussin, B. A., Mayfield, A., Frazier, P. H., & Treadway, S. L. (2009). Psychiatric diagnoses as contemporaneous risk factors for suicide attempts among adolescents and young adults: Developmental changes. *Journal of Consulting and Clinical Psychology, 77*(2), 281–290. https://doi.org/10.1037/a0014732

Hadland, S. E., Marshall, B. D. L., Kerr, T., Qi, J., Montaner, J. S., & Wood, E. (2012). Suicide and history of childhood trauma among street youth. *Journal of Affective Disorders, 139*, 377–380.

Hadland, S. E., Wood, E., Dong, H., Marshall, B. D. L., Kerr, T., Montaner, J., & DeBeck, K. (2015). Suicide attempts and childhood maltreatment among street youth: A prospective cohort study. *Pediatrics, 136*, 440–449. https://doi.org/10.1542/peds.2015-1108.

Harris, T., Rice, E., Rhoades, H., Winetrobe, H., & Wenzel, S. (2017). Gender differences in the path from sexual victimization to HIV risk behavior among homeless youth. *Journal of Child Sexual Abuse, 26*(3), 334–351. https://doi.org/10.1080/10538712.2017.1287146

Hodgson, K. J., Shelton, K. H., & van den Bree, M. B. M. (2015). Psychopathology among young homeless people: Longitudinal mental health outcomes for different subgroups. *British Journal of Clinical Psychology, 54*(3), 307-325. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1111/bjc.12075.

Kamieniecki, G. W. (2001). Prevalence of psychological distress and psychiatric disorders among homeless youth in Australia: A comparative review. *Australian and New Zealand Journal of Psychiatry, 35*, 352–358.

Kidd, S., & Shahar, G. (2008). Resilience in homeless youth: The key role of self-esteem. *American Journal of Orthopsychiatry, 78*(2), 163. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1037/0002-9432.78.2.163.

Kidd, S. A. (2006). Factors precipitating suicidality among homeless youth: A quantitative follow-up. *Youth & Society, 37*, 393–422. https://doi.org/10.1177/0044118X05282763.

Kidd, S. A. (2007). Youth homelessness and social stigma. *Journal of Youth and Adolescence, 36*(3), 291–299.
Kidd, S. A., & Carroll, M. R. (2007). Coping and suicidality among homeless youth. *Journal of Adolescence, 30*, 283–296.
Kidd, S. A., Gaetz, S., & O'Grady, B. (2017). The 2015 national canadian homeless youth survey: Mental health and addiction findings. *Canadian Journal of Psychiatry, 62*(7), 493-500. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1177/0706743717702076.
Kidd, S. A., & Kral, M. J. (2002). Suicide and prostitution among street youth: A qualitative analysis. *Adolescence, 37*, 411–430.
Lee, K. H., Jun, J. S., Kim, Y. J., Roh, S., Moon, S. S., Bukonda, N., & Hines, L. (2017). Mental health, substance abuse, and suicide among homeless adults. *Journal of Evidence-Informed Social Work, 14*(4), 229–242.
Lynn, C. J., Acri, M. C., Goldstein, L., Bannon, W., Beharie, N., & McKay, M. M. (2014). Improving youth mental health through family-based prevention in family homeless shelters. *Children and Youth Services Review, 44*, 243-248. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1016/j.childyouth.2014.05.
Mackelprang, J. L., Harpin, S. B., Grubenhoff, J. A., & Rivare, F. P. (2014). Adverse outcomes among homeless adolescents and young adults who report a history of traumatic brain injury. *American Journal of Public Health, 104*, 1986–1992.
McBride, R. G. (2012). Survival on the streets: Experiences of the homeless population and constructive suggestions for assistance. *Journal of Multicultural Counseling and Development, 40*(1), 49–61.
McLean, L. (2005). *Seeking sanctuary: An exploration of the realities of youth homelessness in Calgary*. Calgary, AB: Broadview Applied Research Group, Inc.
Meltzer, H., Ford, T., Bebbington, P., & Vostanis. (2012). Children who run away from home: Risks for suicidal behavior and substance misuse. *Journal of Adolescent Health, 51*, 415–421. https://doi.org/10.1016/jadohealth.2012.04.002.
Merscham, C., Van Leeuwen, J., & M., & McGuire, M.. (2009). Mental health and substance abuse indicators among homeless youth in Denver, Colorado. *Child Welfare, 88*(2), 93–110.
Moore, H., Benbenishty, R., Astor, R. A., & Rice, E. (2018). The positive role of school climate on school victimization, depression, and suicidal ideation among school-attending homeless youth. *Journal of School Violence, 17*, 298–310. https://doi.org/10.1080/15388220.2017.1322518.
Noell, J. W., & Ochs, L. M. (2001). Relationship of sexual orientation to substance use, suicidal ideation, suicide attempts, and other factors in a population of homeless adolescents. Journal of *Adolescent Health, 29*(1), 31-36. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1016/S1054-139X(01)00205-1.
Okamura, T., Ito, K., Morikawa, S., & Awata, S. (2014). Suicidal behavior among homeless people in Japan. *Social Psychiatry and Psychiatric Epidemiology, 49*(4), 573–582.
Oppong Asante, K., & Meyer-Weitz, A. (2017). Prevalence and predictors of suicidal ideations and attempts among homeless children and adolescents in Ghana. *Journal of Child and Adolescent Mental Health, 29*, 27–37.
Oppong Asante, K., Meyer-Weitz, A., & Petersen, I. (2016). Mental health and health risk behaviours of homeless adolescents and youth: A mixed methods study. *Child & Youth Care Forum, 45*(3), 433-449. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1007/s10566-015-9335-9.
Petering, R. (2016). Sexual risk, substance use, mental health, and trauma experiences of gang-involved homeless youth. *Journal of Adolescence, 48*, 73–81.
Rew, L., Taylor-Seechafer, M., Thomas, N. Y., & Yockey, R. D. (2001). Correlates of resilience in homeless adolescents. *Journal of Nursing Scholarship, 33*, 33–40.
Rhoades, H., Rusow, J. A., Bond, D., Lanteigne, A., Fulginiti, A., & Goldbach, J. T. (2018). Homelessness, mental health and suicidality among LGBTQ youth accessing crisis services. *Child Psychiatry and Human Development, 49*(4), 643–651.
Rohde, P., Noell, J., Ochs, L., & Seeley, J.R. (2001). Depression, suicidal ideation and STD-related risk in homeless older adolescents. *Journal of Adolescence, 24*, 447-460. doi:https://doi.org/10.1006/jado.2001.0382.
Roy, E., Haley, N., Leclerc, P., Sochanski, B., Boudreau, J., & Boivin, J. (2004). Mortality in a cohort of street youth in Montreal. *JAMA, 292*, 569–574.
Ryan, K. D., Kilmer, R. P., Cauce, A. M., Watanabe, H., & Hoyt, D. R. (2000). Psychological consequences of child maltreatment in homeless adolescents: Untangling the unique effects of maltreatment and family environment. *Child Abuse & Neglect, 24*(3), 333-352. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1016/S0145-2134(99)00156-8.
Sinyor, M., Kozloff, N., Reis, C., & Schaffer, A. (2017). An observational study of suicide death in homeless and precariously housed people in Toronto. *Canadian Journal of Psychiatry, 62*(7), 501–505.
Slesnick, N., & Meade, M. (2001). System youth: A subgroup of substance-abusing homeless adolescents. *Journal of Substance Abuse, 13*(3), 367-384. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1016/S0899-3289(01)00082-7.
Slesnick, N., Kang, M. J., & Aukward, E. (2008). Treatment attendance among homeless youth: The impact of childhood abuse and prior suicide attempts. *Substance Abuse, 29*(2), 43–52.
Swahn, M. H., Palmier, J. B., Kasirye, R., & Yao, H. (2012). Correlates of suicide ideation and attempt among youth living in the slums of Kampala. *International Journal of Environmental Research and Public Health, 9*(2), 596–609.
The U.S. Department of Housing and Urban Development (HUD) (2019). *The 2019 Annual Homeless Assessment Report (AHAR) to Congress.* Retrieved from https://files.hudexchange.info/resources/documents/2019-AHAR-Part-1.pdf on Dec 27, 2020.
Thompson, R. W., Arnkoff, D. B., & Glass, C. R. (2011). Conceptualizing mindfulness and acceptance as components of psychological resilience to trauma. *Trauma, Violence & Abuse, 12*, 220–235.
Thompson, S. J., Bender, K., Windsor, L., Cook, M. S., & Williams, T. (2010). Homeless youth: Characteristics, contributing factors, and service options. *Journal of Human Behavior in the Social Environment, 20*(2), 193–217. https://doi.org/10.1080/10911350903269831
Thompson, S. J., Ryan, T. N., Montgomery, K. L., Lippman, A. D. P., Bender, K., & Ferguson, K. (2016). Perceptions of resilience and coping: Homeless young adults speak out. *Youth & Society, 48*(1), 58–76.
Toolis, E. E., & Hammack, P. L. (2015). The lived experience of homeless youth: A narrative approach. *Qualitative Psychology, 2*(1), 50–68.
Torchalla, I., Strehlau, V., Li, K., Schuetz, C., & Krausz, M. (2012). The association between childhood maltreatment subtypes and current suicide risk among homeless men and women. *Child Maltreatment, 17*(2), 132–143.
Ungar, M. (2004). *Nurturing hidden resilience in troubled youth.* Toronto, Ontario, Canada: University of Toronto Press.
Votta, E., & Farrell, S. (2009). Predictors of psychological adjustment among homeless and housed female youth. *Journal of the Canadian Academy of Child and Adolescent Psychiatry, 18*, 126–132.
Votta, E., & Manion, I. G. (2003). Factors in the psychological adjustment of homeless adolescent males: The role of coping style. *Journal of the American Academy of Child and Adolescent Psychiatry, 42*, 778–785.
Votta, E., & Manion, I. (2004). Suicide, high-risk behaviors, and coping style in homeless adolescent males' adjustment. *Journal of Adolescent Health, 34*(3), 237-243. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1016/j.jadohealth.2003.06.0.
Walls, N. E., Potter, C., & Van Leeuwen, J. (2009). Where risks and protective factors operate differently: Homeless sexual minority youth and suicide attempts. *Child & Adolescent Social Work Journal, 26*(3), 235-257. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1007/s10560-009-0172-2.
Whitbeck, L. B. (2009). *Mental health and emerging adulthood among homeless young people*. New York, NY: Psychology Press.
Yoder, K. A. (1999). Comparing suicide attempters, suicide ideators, and nonsuicidal homeless and runaway adolescents. *Suicide & Life-Threatening Behavior, 29*(1), 25–36.
Yoder, K.A., Longley, S.L., Whitbeck, L.B., & Hoyt, D.R. (2007). A dimensional model of psychopathology among homeless adolescents: suicidality, internalizing, and externalizing disorders. *Journal of Abnormal Child Psychology, 36*, 95-104. doi: https://doi.org/10.1007/s10802-007-9163-y.
Yoder, K. A., Whitbeck, L. B., & Hoyt, D. R. (2010). Comparing subgroups of suicidal homeless adolescents: Multiple attempters, single attempters and ideators. *Vulnerable Children and Youth Studies, 5*(2), 151-162. doi:http://dx.doi.org.ezproxylocal.library.nova.edu/10.1080/17450121003615385.