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Risk and resilience factors for youth homelessness in Western countries - A systematic review

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Abstract

Objectives—The experience of homelessness for young people can impact social, emotional and physical development, resulting in poorer physical and mental health outcomes. To reduce rates of homelessness in youth, a better understanding of both risk and resilience is needed to inform future intervention development. This article presents a systematic review of published research reporting risk or resilience factors related to homelessness in young people in Western countries, and integrates this information into a provisional developmental model of homelessness risk in youth. Clinical implications of this model on service development are discussed, and a model for monitoring homelessness risk and resilience factors (HOME) is proposed.

Methods—After thorough examination for inclusion criteria, 665 abstracts of peer-reviewed quantitative examinations of risk or resilience factors for homelessness in young people (aged 0–25), including an adequate comparison group (e.g., non-homeless) were selected and, following abstract and full text screening, 16 articles were included in this review. Using a primary prevention framework, an explanatory model for the onset of homelessness using risk and resilience factors is proposed.

Results—Common risks for youth homelessness identified by this research included difficulties with family, mental health or substance use problems, a history of problem behaviors, a history of foster care, homelessness as a child, or running away. Common protective factors included a supportive family, a college education and high socioeconomic status.

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Conclusions—Factors impacting homelessness risk in youth differ from adults, with family, foster care and schooling playing a much more important role. This highlights opportunities for youth homelessness prevention strategies, and monitoring.

Introduction

Homelessness is a major public health problem in the United States, and across the world. It affects millions of people and has a devastating impact on physical, emotional, and spiritual wellbeing. For young people under 18 years, the impact of homelessness is particularly concerning. It is estimated that between 4 and 8 percent of adolescents and young adults in the United States experience homelessness and approximately 1.5 million children experience homelessness annually (1). Homelessness in youth is associated with poor health outcomes (2), difficulties with learning, cognition, social skills and emotion regulation (3), compounded by increased risks for victimization, violence and chronic stressors such as hunger (4). Given that a history of youth homelessness raises risk for future homelessness as an adult (5), understanding and preventing youth homelessness should be a priority.

Current efforts to reduce homelessness are largely tertiary prevention strategies, aimed at supporting those who have already lost housing (6) and primarily focusing on adults who are chronically homeless. Though these efforts are valuable and improve health and housing outcomes, they do not decrease the incidence of new-onset homelessness. To reduce rates of homelessness, primary prevention is critical (7). However, our understanding of risk factors that contribute to youth becoming homeless is scattered, limiting development of primary prevention strategies. The literature lacks a systematic compilation of factors that are associated with or contribute to young people becoming homeless. In addition, while significant research focuses on factors conveying risk for homelessness, there is limited research on factors that are protective against becoming homeless, an important consideration for primary prevention. Further, systematic societal issues such as housing costs are clear risk factors for homelessness (8), but the impact of individual risk factors for homelessness within these wider societal factors is also unclear.

To support the development of homelessness prevention strategies targeted towards young people, this review systematically examines risk and resilience factors associated with homelessness in young people under the age 25 in Western countries. Then, to summarize these factors within a primary prevention framework, we propose an explanatory developmental model for the onset of homelessness in young people. This model includes the identified risk and resilience factors, and highlights points for the development of future interventions to prevent homelessness among youth. Clinical implications of this model are discussed, including a proposed method for monitoring homelessness risk and resilience factors in existing services: Homelessness Outreach and Monitoring of Environments (HOME).

Method

Definitions

Given the focus of this review on primary prevention, our definition of homelessness was designed to be as inclusive as possible to capture all of those who lack stable and safe housing, and follows the definition given by the McKinney-Vento Homeless Assistance Act of 1987. This legislation defined homeless persons as those lacking a fixed, regular, and adequate night-time residence, or having a night-time residence that is a publicly or privately operated shelter, a public or private place that provides temporary residence for those intending to be institutionalized, or a public or private place not designed for use as a regular sleeping accommodation for human beings (9). Our definition also includes those exiting an institution, e.g., jail or a hospital, where they resided temporarily (who were in a shelter or place not meant for human habitation immediately prior to entering that institution), those living in overcrowded or temporary residences, those who “couch-surf” or live with different friends or family members because they do not have a permanent residence (10), those experiencing frequent moves (2 or more in the last 60 days), those experiencing continued difficulties maintaining housing due to disability, domestic violence, or employment barriers, and those at imminent risk of homelessness (persons forced leave their current housing within the next 14 days, who would subsequently be left without a place to go or resources to get housing).

In the literature, homelessness is also differentiated as an acute or chronic experience. Homelessness is a transient state, and the majority of people will only experience short-term or acute homelessness (11). Chronic homelessness is typically defined by continuous homelessness for more than 1 year, or having experienced 4 or more episodes of homelessness in the past 3 years (12).

Search Selection and Strategy

A systematic review was completed of quantitative research articles examining risk and resilience factors for homelessness in youth. For this review, we performed a standardized search of abstracts in PubMed (1950–2019), and PsycINFO (1974–2019) databases on the 23rd of January 2020. Search terms included risk AND/or resilience AND homelessness AND/or homeless AND youth AND/or young AND/or child AND/or adolescent in abstract/titles. As shown in Figure 1 (Supplementary Materials), PubMed resulted in 545 abstracts, and PsycINFO resulted in 614 results. Thus, the initial search yielded 1154 articles including 492 duplicates that were removed. Additional articles were identified through references lists and by speaking with field experts, resulting in three additional articles. The inclusion criteria were that a) the manuscript was published in English and peer reviewed, b) articles were quantitative examinations of risk or resilience factors for homelessness in young people (aged 0–25), and c) articles had an adequate comparison group (e.g., non-homeless). Articles examining participants from non-Western countries were excluded, as there were not enough studies in this area to focus on system-level differences across Western and non-Western societies. Articles were also excluded if the factors examined occurred only subsequent to homeless experiences (i.e. did not measure any factors occurring prior to homelessness episodes). Article abstracts were screened for the inclusion and exclusion

criteria and, after this process, 38 articles remained. The full-texts of these articles were screened for the inclusion criteria, leaving 16 articles for these analyses. During full-text screening articles were primarily excluded due to lacking an adequate comparison group or only examining factors subsequent to homelessness.

Study Quality Assessment and Data Extraction

The rigor of each study was evaluated using the Quality Assessment Tool for Observational Cohort and Cross-sectional Studies, which considers study design, item measurement, selection bias, and detection bias. Risk or resilience factors were extracted from the articles by two independent reviewers. These were defined as any dependent variable where an association with homelessness was measured within the analyses. Factors that were associated with increased risk of homelessness were considered risk factors, and factors associated with decreased risk of homelessness were considered protective factors. Any disagreements were discussed, and a consensus reached. If it was not possible to extract the data from the publication, the authors were contacted for clarification.

Results

Study design varied with 37.5% (n = 6) of the studies considered cross-sectional in design, 56.3% (n = 9) considered longitudinal in design and 6.3% (n = 1) considered retrospective in design. In terms of study rigor, 81.25% of the studies were considered to have low selection bias (n = 13), and 93.75% of the studies had low detection bias (n = 15) as defined by Cochrane risk of bias. All studies met at least 70% of the Quality Assessment Tool for Observational Cohort and Cross-sectional Studies criteria, and thus no studies were excluded due to not meeting rigor standards.

Of note, some of the study populations were specific, rather than a representative sample of the general population. One study examined the lesbian, gay, and bisexual (LGB) population (13), five studies examined youth who were in the foster care system (14–18), one examined youth in the youth protection system in Canada (19) and one examined youth discharged from psychiatric treatment (20). Five samples were large scale surveys of the general population (1, 21–24), one was a nationally representative household sample (2), and the remainder recruited participants from homelessness organizations alongside other control populations (25, 26).

As shown in Table 1, there are specific risk and resilience factors that contribute to or protect youth from experiencing homelessness. In terms of individual factors, one of the most commonly reported risk factors was a history of homelessness (independent from the family), or running away from home (1, 14, 15, 17, 18, 20, 21, 24, 27). For example, the odds of youth reporting homelessness at 12-month follow-up was 1.39 times higher for those with a history of homelessness in their K-12 records (15), compared to those without history. Another study found that the odds of youth reporting homelessness at age 26 was 1.76 times higher for youth with a history of running away (14). This was evident in the general population (21, 28, 29), foster youth populations (14, 15, 17, 18) and for youth exiting psychiatric care (30).

Other individual risk factors included a poor academic schooling history (15, 22), not completing high-school (2) or a history of delinquency or problem behavior (14, 17–19, 26). A poor schooling history was a risk for youth in the foster care system (15) and the general population (22). Those with school adjustment problems at age 11–18 were 1.57 times more likely to become homeless between ages 18–28 (22). Delinquent behavior was a particular risk factor for youth with a history of foster care and youth recruited from homeless services. Those with a history of problem behavior were between 2.08 and 3.00 times more likely to be homeless when compared to a housed control group (19, 26).

A history of substance use was also a common risk factor for homelessness (1, 13, 20, 24, 27, 31), as was a family or peer history of substance use (26). This was evident across all populations examined. When adolescents under the age of 19 were discharged from psychiatric treatment, those who had a history of substance use were at 1.9 times more likely to become homeless in the subsequent five years (20). Though one study (13) found that a younger age of first substance use was associated with homelessness for LGB youth, it highlighted that this substance use was occurring subsequent to the first episode of homelessness.

Another important individual risk for homelessness was emotional regulation and mental health difficulties (14, 24, 25), and this was identified in the general population (24), in youth accessing homelessness services (25), and foster youth populations (14). Similar to adults, mental health problems are highly prevalent in homeless youth (1), and the odds of youth exiting foster care reporting an episode of homelessness 10 years later was 1.40 times higher among those also reporting history of a mental health disorder (14). Having a past diagnosis of depression resulted in 1.61 greater odds of homelessness at age 18–28, and a history of psychiatric hospitalization resulted in 1.82 greater odds (24) of homelessness.

Another common risk factor found for youth homelessness was a history of trauma, particularly physical abuse (14, 19, 20, 22), which was a risk factor in the general population (22), youth from the youth protection system (19), youth discharged from psychiatric treatment (20) and foster youth populations (14). For children aged 11–18, the odds of reporting homelessness at 6-year follow-up was 1.27 times higher for youth who reported experiences of victimization, defined as the frequency in the past year of violent events (e.g., someone pulled a knife or gun out on them) (22). Young people exiting psychiatric treatment with a history of physical abuse were 2.58 times more likely to become homeless, when compared to those without a history of physical abuse (20).

A further risk factor for youth was identifying as a non-heterosexual sexual orientation, with young people who identify as LGB at 2.20 times higher risk of homelessness than youth who are not LGB (2). For this population, disclosing one's sexual orientation – or “coming out” – at a younger age appears to increase this risk. When comparing homeless to non-homeless LGB youth, the homeless group had a younger mean age of coming out than the housed group (13).

In terms of family risk factors, homeless youth from foster care backgrounds often report a high number of foster care placements (14, 15) or not being in their biological family's care

(15). Young people with a history of more than four foster care placements were 1.83 times more likely to report homelessness at 12-month follow-up (15).

In general population samples, young people from a single parent family, step family, or family with non-biological parents also appeared to be at higher risk of homelessness at age 25 (1). Youth who were unmarried and a parent were three times more likely to report homelessness than youth who were not unmarried parents. Economic difficulties or low household income were also risk factors in the general population (2, 24). Adolescents with families experiencing economic difficulty in the past 12 months were at 1.23 greater odds of becoming homeless at age 18–28 (24). Other family risk factors in the general population included family instability (21) and having a father who is incarcerated (23). Additional risks found in populations accessing homeless organizations included family conflict (26) and family drug use (26), which placed youth at higher risk of homelessness or running away. Adolescents reporting family conflict at home were 2.74 times more likely to be homeless, compared to those who reported no conflict (26).

Only one study examined community level factors, finding that youth who were in the foster care system at age 17 and residing in areas providing higher levels of housing supports were less likely to experience homelessness at age 19 than those residing in areas that provided lower levels (18). However, unexpectedly, youth residing in areas with higher housing burden (high housing costs relative to average income) were less likely to experience homelessness than those living in lower housing burdened areas, even after accounting for housing supports (18).

Importantly, there are also factors that appear to buffer youth against becoming homeless; however less is known about these protective factors, as most research found in this review focused on those who have already become homeless and risk factors for this. Interestingly, three studies in the general population reported that being Hispanic protected against homelessness or running away (1, 23, 24). This may reflect that protective factors such as family involvement are more prominent in Hispanic culture (32), however it may also reflect that people of Hispanic ethnicity often underuse housing services (33) and experience homelessness in ways that leave them undercounted (e.g., staying with family)(34). One study in the general population reported that being African American protected against running away (23); however, two other studies, one in a general population and one in a foster youth population, found that African Americans were more likely to become homeless (2, 15). African American youth who had been in the foster care system were 1.68 times more likely to be experiencing homelessness at 12-month follow-up when compared to other races (15). Another study on youth from the foster care system found that non-white participants were more likely to have unstable housing (16).

In general population samples, good educational attainment, defined as completing college by age 25, was protective against homelessness (1); in addition, higher family socioeconomic status (SES) predicted a lower risk of running away (23) and both higher individual or family SES and current employment were associated with a lower risk of homelessness (24). For youth aged 18–28 who reported experiencing homelessness, there were only 76 employed for every 100 people who were unemployed or never employed (24).

Other protective factors in the general population included monitoring-style parenting (23), family relationship quality (family pays attention to, understands and cares about the young person) (22), and a good family routine (spending regular time with the family at scheduled events such as dinner) (1).

For youth in the foster care system, remaining in foster care until age 19 (18), connection to a caring adult (17, 18), a history of being placed with a relative (15), and having a high GPA (15) were all protective factors. For every 100 foster care youth who reported homelessness at 12-month follow-up and did not have a history of being placed with relatives, there were only 68 youth who had a history of being placed with relatives, indicating being placed with relatives was protective (15). Additionally, for youth engaged with homelessness organizations, family involvement (the family giving opportunities to do things with them) was an important protective factor (26).

The included studies varied in how the timing of the episode of homelessness was examined. Several studies examined factors related to past episodes of homelessness (13, 23, 26, 28, 35–37). Several studies were prospective and examined risk factors related to the first episode of homelessness after the initial interview or examination period (14–17, 21–23, 29, 30); however, this was not necessarily the first episode of homelessness in that person's life. Given that multiple studies noted that a prior history of housing instability or homelessness was a risk for future episodes of homelessness (15, 18), it remains difficult to delineate the contribution of past homelessness to these risk factors.

To aid in the comparison of risk and resilience factors across studies, Supplementary Table 1 groups the aforementioned factors. This notes whether each factor was a significant risk or resilience factor, whether it was examined but not found to be significant in a particular study, or if it was not included in the study at all. Since there were many specific factors examined, factors were grouped into categories, with details of each category included below the table. The studies are ordered and grouped by population examined, starting with LGB population (13), foster youth (14–18), youth in the youth protection system (19), youth discharged from psychiatric treatment (20), general population samples, (1, 21–24), the nationally representative household sample (2), and the remaining participants from homelessness organizations with their corresponding control populations (25, 26). Importantly, the majority of risk factors reported by each study were found to be independent of each other (2, 15, 16, 19, 23, 24, 26).

Discussion: Proposed Model of Risk for Youth Homelessness – Moving toward Primary Prevention

This review indicates that a number of individual and family risk factors place young people at higher risk of becoming homeless. Risks for homelessness in the general population identified in the current review appeared to fall into six main categories (1) family related factors (e.g., single parent household, family conflict), (2) mental health, behavioral or substance use problems, (3) a history of trauma, (4) school or academic issues, (5) housing instability as a child, or (6) a history of homelessness or running away. Protective factors were not as commonly examined by the literature, but factors identified in the general population included having a supportive and high-functioning family, higher socioeconomic

status, and educational attainment. Family connection was important across all populations studied. In terms of demographic factors, being of Hispanic ethnicity was protective, whereas being non-white was a risk factor. The factors that had the largest odds of homelessness included a history of running away (17, 24), being in foster care (17), and being from a single parent family (26). These factors appear to differ somewhat from risk factors for homelessness as an adult (38), with the family playing a much more important role.

Importantly, the majority of risk factors reported by each study were found to be independent of each other (2, 15, 16, 19, 23, 24, 26). Of interest, household income was a risk factor that was independent of high school completion, as these risks were significant when controlling for each other (2). Mental health difficulties and substance use difficulties were also independent risk factors (24), as were economic difficulties and mental health (24). Family violence, placement outside the home, a poor parent-child relationship and behavioral disorders also all independently predicted homelessness (19).

Future Directions

This review highlights the current state of research surrounding factors affecting homeless experiences in youth, and identifies gaps in our knowledge. The limited scope of currently available research presented a significant challenge for this systematic review. Firstly, the research on specific populations was limited, impacting the ability to determine whether risk factors differ across sample types (e.g. foster care populations, youth accessing homelessness services, youth justice populations and sexual minority populations). Additionally, certain populations, such as youth with serious mental illnesses, were not examined specifically by any study. Given the high rates of homelessness in this population, and that homelessness interferes with mental health recovery (39), it seems vital to examine specific risk and protective factors related to homelessness for individuals affected by mental health conditions. However, excluding factors particular to specific samples (e.g., number of foster care placements for youth in the foster care system), all categories of risk highlighted by this review were present in large-scale general population studies, in addition to being found in other specific populations. As such, this implies that the risk factors identified here contribute to homelessness more broadly, and across a range of risk groups.

Secondly, research on protective factors was limited. Only ten out of the total sixteen articles examined protective factors, and the protective factors were often very specific and not examined in more than one study. Consequently, this review was only able to identify themes of protective factors present across multiple studies, including connection to family and academic or occupational achievement. Examining resilience factors is challenging, as it is difficult to identify populations who are at risk for homelessness, but manage to remain housed. Following high risk populations, such as LGBTIQ+ youth or youth experiencing severe mental illness, and measuring housing instability as well as possible resilience factors across shorter time periods might allow a more nuanced understanding of which factors reduce likelihood of becoming homeless. A more comprehensive model of resilience factors would facilitate development of a primary prevention strategy. For example, we know that a youth's connectedness to their family and parents is a protective factor. Parents who

are more responsive to their child promote development of strong self-regulation skills, which are protective against becoming homeless (3). Such protective factors represent potential elements to incorporate into prevention efforts, for example through family focused interventions. Other preventative efforts could identify youth whose family may not have capacity to participate in interventions and provide programs that support them to develop other natural support networks and build on resilience factors (e.g., by supporting them to stay in school and develop financial independence).

Thirdly, within the articles reviewed there was little to no research examining community/system level factors, such as social policy, job availability or housing availability, and their role in homelessness. Individual and family factors are clearly important to consider for homelessness, as these can often be targeted more easily by organizations aiming to prevent homelessness. For example, case managers can help an individual to build relationships with their family, get a job and access support for mental health or substance use difficulties. However, without addressing broader community level problems that contribute to homelessness, such as low wages or lack of affordable housing, this may be akin to swimming against the current. With the lack of literature examining individual factors within the context of community level factors, it is difficult to know what role the wider societal environment plays in youth homelessness. This distinction has important policy implications as risk would likely vary depending on what supports or safeguards against homelessness are available from the government. It would be interesting to understand how housing availability impacts young people, and whether current primary prevention interventions, such as rapid re-housing, are effective for youth populations. Rapid re-housing provides homeless individuals and families with short-term assistance to pay rent and support for a quick transition into permanent housing. Further projects should aim to examine risks for youth homelessness within a more comprehensive framework.

Finally, the research examined by this review focused overwhelmingly on individual homelessness, rather than youth who experience homelessness as part of the family unit. Family homelessness is primarily associated with parental difficulties (40), whereas individual homelessness as discussed in this review is primarily related to difficulties the young person is experiencing individually as well as in relation to their family. However, it is unclear what risk or resilience factors might be common across the two situations. It is also important to understand how the experience of family homelessness by a young child risk may contribute to their later risk for homelessness as an adult. For example, since a history of homelessness predicts future homelessness, interventions targeting homeless families to support a quicker transition to housing may reduce later homelessness for the children when they become young adults. Since homeless families account for 35% of the total homeless population, this is an important consideration (41). In order to comprehensively inform policy and develop effective primary prevention for youth homelessness, these issues need to be addressed by future research.

Model of Homelessness in Youth

To summarize the current state of the literature, promote future research addressing these knowledge gaps, and provide a framework for clinicians to integrate into service delivery, a

provisional model summarizing the current knowledge base of the risk and resilience factors for youth homelessness is presented below (Figure 2, Supplementary Materials). Where appropriate, we also integrate other known homelessness risk research that did not meet criteria for our review, to best capture the full cycle of youth homelessness. This model aims to assist in the generation of primary prevention interventions by indicating where known risk and protective factors may be important to consider in the pathway toward youth homelessness. Figure 2 (Supplementary Materials) summarizes known distal risk factors that can occur throughout the development of homelessness risk. These factors include individual, family and community risk factors as discussed above. In addition, this model also includes known proximal risk factors. As homelessness is a dynamic state, considering more proximal risk factors is vital. This includes risk factors discussed above that could be immediate triggers for running away or an initial homelessness episode, such as changes in mental health (25), increases in substance use (1), housing transitions such as exiting foster care (15, 16), leaving a psychiatric stay (20), or family conflict (26). Given 70% of homeless youth cite family conflict as the reason for their homelessness (42), this suggests that feeling disconnected from family, or being forced to leave is a key reason youth leave home. As discussed in the results, it is still difficult to disentangle the impact of past homelessness on these risk factors, which should be addressed in future research.

A young person's resilience factors and resources can also act to protect them against both distal and proximal risk factors. Known protective factors include high socio-economic status (23), employment (24), family support and involvement (26), good family relationships (22) and school achievement (1, 24). These factors may indicate that, despite risks, a young person who is given support in these domains is less likely to end up homeless.

Also discussed in the reviewed literature, and included in the model, are factors that may support exiting homelessness or entering a more chronic homelessness cycle. For example, if young people who have run away from home or are experiencing acute homelessness are able to access services (15), or family support (1), they may be able to become housed again. Additional studies on youth that did not fit review criteria, suggest that youth with feelings of personal control appear more resilient and able to exit homelessness (43). For some young people, becoming homeless and then housed again turns into a repetitive cycle (44). For those young people who experience long term substance use difficulties (24), have difficulty accessing services (45), or severe mental health problems (24), this cycle may lead to chronic homelessness.

Clinical Implications

Complex public health issues such as homelessness are difficult to address as they often require broad, multifaceted interventions to manage the variety of factors involved. Similar public health issues, such as suicide prevention, have been addressed by the World Health Organization (WHO). The WHO suggests the key components to a comprehensive prevention strategy and multi-faceted and include: 1) clear goals or objectives so that progress can be measured, 2) identification of relevant risk and protective factors, 3) effective interventions based on these risk and protective measures, 4) prevention strategies

at the general population level, vulnerable group level and individual level, 5) conducting research on interventions and prevention strategies, and 6) monitoring and evaluation of outcomes (46).

In applying this model to research on youth experiencing homelessness, we suggest similar objectives and intervention strategies including: increasing awareness of risk factors for homelessness (that occur at population levels, family levels and individual levels), understanding and preventing risk factors for homelessness, improving research on homelessness risk and outcomes, and improving services that enhance housing outcomes for those who are at risk of homelessness, with an overall goal of reducing incidence of new homelessness. Additionally, it is important to consider that homelessness risk differs from suicide risk in that suicide prevention is not as directly dependent on policy related factors such as affordable housing, economic status, governmental support and subsidies. Thus, there are more system-level variables in homelessness prevention, and these will also need to be addressed by interventions.

Despite the need for further research, Figure 2 (Supplementary Materials) highlights several ideal targets for existing interventions for youth and may also assist in the development of new interventions. The Upstream program, under development by University of Chicago researchers at Chapin Hall, is a primary prevention initiative involving screening youth at schools to identify those at risk for homelessness or school drop-out and then provide supportive interventions. This example highlights the methods by which we can identify and address such risk factors before young people escalate to crisis (47). Another example of current state-level interventions targeting these risk factors includes state funding for housing supports for youth exiting the foster care system, or extending foster-care beyond age 18. There is evidence that these strategies result in decreased odds of homelessness, supporting the idea that targeting these risk factors is effective (18, 48). Future research should examine if these current strategies are targeting the most prominent risk factors for young people, and if changes can be made to better target key risk factors for youth homelessness such as family conflict.

While these strategies offer hope, many current interventions do not comprehensively address the distal risk factors that put youth at higher risk for homelessness. This highlights a need for further development of services. For example, support services for LGBTIQ+ youth should focus on community integration and support network development, whether that be their own family or a wider community service; family interventions aimed at increasing positive involvement and reducing conflict; and targeted services for children who are missing school or showing problem behaviors at school. Other areas for possible research and development include services that support individuals to navigate the system and access funding assistance or affordable housing, and state level interventions that would affect service availability, affordable housing availability and governmental assistance. A second area of focus for interventions is proximal risk factors, such as targeting youth who are at imminent risk of running away or homelessness. This review indicates there are important factors that could be targeted by current systems of care, for example training medical, substance use and mental health providers to assess for and intervene in homelessness risk, and integrating social services for housing support into pre-existing

infrastructure such as the current health care system. A third intervention point is for youth who have run away from home or who are experiencing acute homelessness. These interventions may need to target youth drop-in centers or identify youth on the streets, and could include increasing service availability and assisting youth to feel more comfortable accessing services, reintegrating youth with their families and supporting families to reach out, encouraging a sense of control and resiliency in the young person, and supporting these youth to access substance use and mental health interventions. Interventions at this final point may be able to prevent a more chronic homelessness cycle.

However, primary preventative efforts require identification of adolescents who are at risk of homelessness (26). While distal and proximal risk factors have been identified in this review, it is unclear if a combination of these factors can be used to predict those at highest risk in a meaningful way. We propose using current knowledge of risk factors through a homelessness risk monitoring system. This can provide a framework for researchers to prospectively follow youth and examine the predictive power of these factors, and for current healthcare or mental health providers to provide targeted supports to young people at risk. Currently there is no clear evidence-based way for youth services (such as mental health care, hospitals and other social support systems such as LGBTIQ+ services) to monitor and prevent homelessness. We propose a novel approach to monitoring these young people in clinical settings, the two step Homelessness Outreach and Monitoring of Environments for young people or HOME assessment (see Supplementary Materials 1). This provides a flexible, actionable method of integrating the current knowledge of risk factors for youth homelessness into current youth services. While HOME is based on the risk factors highlighted in this review, further research is now needed to examine the selection of risk factors, alongside this monitoring approach, and validate whether this combination of risk factors is clinically informative, and whether using this monitoring and outreach approach reduces incidence of homelessness in young people. In addition, we hope to expand HOME as more research is completed to better understand family and community risk alongside additional resilience factors.

Conclusion

Knowledge of risk and protective factors for homelessness in youth is expanding, and suggests a major role of historical homelessness, education and family relationships. This has clinical implications for many existing youth homelessness prevention strategies. However, current research is not yet at the stage that these factors can be used to predict and prevent homelessness in youth. This review presents the HOME monitoring system, which summarizes current knowledge of risk factors, to support examination of these factors in research and use to direct homelessness services in clinical settings. However, this is a provisional model, it is vital that future research efforts focused on the timing of homelessness risk factors, systemic community factors, housing instability, resilience factors, and youth at particular risk for homelessness are used to improve and finesse these strategies.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Highlights

- Factors impacting risk for youth homelessness differ from adults.
- Family connections, foster care, poor school performance and history of running away or homelessness are important factors to consider for youth homelessness prevention.
- HOME proposes a risk identification system to assist with directing supports to youth at risk of homelessness.

Table 1.

Included studies examining risk and resilience factors for homelessness in youth

Study	Country	Sample Size	Sampling strategy	Age range (years)	Male sex (%)	Minority race (%)	Risk factors (factor & effect size)	Resilience factors (factor & effect size)
(18) Prince et al., 2011; Longitudinal (2 year follow-up)	USA	7449	Participants from wave 1 and 2 of the National Youth in Transition Database	17–19	30.2%	> 54.6%	Risk for becoming homeless at age 19: African American , OR=1.41, CI=1.15,1.72, p<.001; History of homelessness , OR=1.81 CI=1.40,1.32, p<.001; History of substance use referral , OR=1.69, CI=1.31,2.18, p<.001; Justice system involvement , OR=1.44, CI=1.05,1.99, p<.05; Removal from home due to child behavior problem , OR=1.44 CI=1.17,1.78, p<.001; Removal from home due to other reasons , OR=1.36, CI=1.15,1.59, p<.001; History of running away , OR=3.87, CI=2.51,5.98, p<.001; State spending on housing supports , B=-0.43, SE=0.12, p<.001; Percentage of housing burdened renters at state level , B=-0.97 SE=0.07, p<.001	Connection to a caring adult , OR=0.68, CI=0.47,0.98, p<.05; Remain in foster care till age 19 , OR=0.36, CI=0.28,0.46, p<.001
(25) Castaños-Cervantes et al., 2018; Cross-sectional	Mexico	135	Participants recruited from nine organizations that serve homeless and at-risk youth.	11–18	0%	Not reported.	Risk for being homeless rather than at risk: Depression t=-2.10, p=.002, CI=-0.71,-0.02; Emotion Dysregulation t=-3.12, p=.039, CI=-1.00,-0.22; Negative Emotions Intensity t=-2.97, p=.004, CI=2.49,-0.49	Resilience against being homeless rather than at risk: Well-being t=3.55, p=.001, CI=0.21,0.75
(2) Morton et al., 2018; Cross-sectional	USA	6295	Participants drawn from a nationally representative sample of households with 13- to 25-year-olds.	18–25	Not reported.	Not reported.	Risk for reporting homelessness: Unmarried with children of their own , RR=3.00, CI=2.37,3.76; Lesbian, gay, bisexual, or transgender , RR=2.20, CI=1.67,2.89; Black or African- American , RR=1.83, CI=1.42,2.35; Incomplete high school , RR=4.46, CI=3.54,5.57; Annual household income of less than \$24,000 , RR=2.62, CI=2.10,3.24	Not reported.
(13) Rosario et al., 2012; Cross-sectional	USA	164	Recruited from three LGB youth-focused community-based organizations and two LGB college student organizations.	14–21	51%	78%	Risk for LGB being homeless rather than non-homeless: Age of identifying as LGB , Homeless: M=14.1, SD=2.7; Not homeless: M=15.0, SD=2.5, p<.05; Age of same sex sexual activity , Homeless: M=13.8, SD=3.5; Not homeless: M=15.2, SD=3.0, p<.05; Age of alcohol use , Homeless: M=14.0, SD=2.6; Not homeless: M=14.8, SD=2.0, p<.05; Age of substance use , Homeless: M=15.0, SD=2.7; Not homeless: M=16.2, SD=2.6, p<.05	Not reported.
(15) Shah et al., 2017; Longitudinal (12-month follow-up)	USA	1202	Data-base data collected from those whose last foster care placement through the public child welfare system occurred	17–21	46%	At least 25%	Risk for becoming homeless at 12 month follow-up: Youth is a parent , OR=2.16, CI=1.54,3.03, p<.001; African American , OR=1.86 CI=1.34,2.60, p=.002; More than 4 care placements , OR=1.83, CI=1.31,2.56, p=.001; More than 4 school moves , OR=1.74	Resilience for becoming homeless at 12 month follow-up: Ever placed with a relative in foster care , OR=0.68 CI=0.51,0.91, p=.01;

Study	Country	Sample Size	Sampling strategy	Age range (years)	Male sex (%)	Minority race (%)	Risk factors (factor & effect size)	Resilience factors (factor & effect size)
(1) Sznajder-Murray et al., 2015; Longitudinal (Risk factors for homelessness at age 25).	USA	8958	Data obtained from the National Longitudinal Survey of Youth 1997 from 1997 – 2009.	12–18	51%	15% Black, 13% Hispanic	<p>CI=1.20,2.53, p=.003; Disrupted adoption, OR=3.42, CI=1.40,8.39, p=.007; History of homelessness in k-12 school data,OR=1.39, CI=1.02,1.91, p=.04; More than 4 convictions, OR=1.57 CI=1.02,2.44, p=.04; History of an injury in medical claims data, OR=1.35, CI=1.01,1.80, p=.04</p> <p>Risk for becoming homeless at age 25: Runaway before age 17, B=0.78, SD=0.27, p<.01; Substance Use, B=0.21, SD=0.09, p<.05; Being in a step-family, B=0.90, SD=0.22, p<.001; Single-parent family, B=0.81, SD=0.20, p<.001; Living with other family (not biological parents), B=1.08, SD=0.29, p<.001</p>	<p>High GPA OR=0.62, CI=0.41,0.94, p=.03</p> <p>Resilience against homelessness at age 25: Hispanic, B=-0.51, SD=0.21, p<.05; Completing college by age 25, B=-1.37, SD=0.36, p<.001; High level of family routine B=-0.78, SD=0.39, p<.05</p>
(14) Dworsky et al., 2013; Longitudinal (Risk factors for homelessness at age 26).	USA	624	Data obtained from the Midwest Evaluation of the Adult Functioning of Former Foster Youth, which followed youths for 10 years beginning in 2002	16–26	Not reported.	Not reported.	<p>Risk for homelessness (before age 26): Male sex, OR=1.45, CI=1.06,1.99, p<.05; Physical Abuse, OR=1.44, CI=1.07,1.93, p<.05; Ran away at least once, OR=1.71, CI=1.27,2.31, p<.001; Mental health disorder, OR=1.40, CI=1.05,1.88, p<.05; Total number of foster placements, OR=1.16, CI=1.04,1.30, p<.01; Delinquency, OR=1.12, CI=1.01,1.24, p<.05</p>	Not reported.
(20) Embry et al., 2000; Longitudinal (5 year follow-up)	USA	83	Participants were discharged from psychiatric treatment between 1981 and 1987.	<19 years (M = 17)	54%	22%	<p>Risk for homelessness before 5 year follow-up: History of drug or alcohol use, RR=1.90, CI=1.01,3.58; Physical abuse RR=2.58, CI=1.35,4.19; In state custody at time of admission, RR=2.88, CI=1.64,5.05; History of running away, RR=2.81, CI=1.39,5.69; No diagnosis of thought disorder, RR=4.79, CI=1.23,18.63</p>	Not reported.
(21) Tyler et al., 2011; Longitudinal (6–8 year follow-up)	USA	7162	Data obtained from the National Longitudinal Study of Adolescent Health	Grade 7–12	45.4%	37.3%	<p>Risk for running away at 6–8 year follow-up: Family instability, $\beta=1.35$, SE=0.23, p<.001; History of running away, $\beta=0.18$, SE=0.03, p<.001</p>	Resilience against running away at 6–8 year follow-up: Female sex , $\beta=-0.11$, SE=0.06, p<.05; Grade at baseline (older) $\beta=-0.14$, SE=0.02, p<.001
(22) Van den Bree et al., 2009; Longitudinal (6 year follow-up)	USA	10433	Data obtained from the National Longitudinal Study of Adolescent Health	11–18 at baseline, 18–28 at follow-up	46.9%	32%	<p>Risk for homelessness at 6 year follow-up: School adjustment problems, OR=1.57, CI=1.35,1.82, p<.01; Experiences of victimization, OR=1.27, CI=1.11,1.45, p<.01</p>	Resilience against homelessness at 6 year follow-up: Family relationship quality , OR=0.79, CI=0.69,0.90, p<.01
(26) Bearsley-Smith et al., 2008; Cross-sectional	Australia	5747	Homeless adolescents were recruited from agencies and secondary school	M = 15–17 across groups	44.2%	Not reported.	<p>Risk for homelessness compared to those who were not at risk for homelessness: Single parent or repartnered family, RR=10.59, CI=5.06,22.16, p<.001; Poor family</p>	Resilience against homelessness compared to those who were not at risk for homelessness:

Study	Country	Sample Size	Sampling strategy	Age range (years)	Male sex (%)	Minority race (%)	Risk factors (factor & effect size)	Resilience factors (factor & effect size)
(19) Robert et al., 2005; Cross-sectional	Canada	218 (110 experienced homelessness)	students at risk or not at risk for homelessness were recruited from randomly selected schools.	12-17 (mean 15.68)	61%	Not reported.	management (rules and boundaries), RR=1.99, CI=1.40,2.81, p<.001; Family conflict, RR=2.74, CI=1.69,4.46, p<.001; Family drug use, RR=2.08, CI=1.44,3.00, p<.001; Peer drug use, RR=0.57, CI=0.38,2.41, p<.001; Anti-social peers, RR=1.79, CI=1.33,0.86, p<.001; Early problem behavior, RR=2.08, CI=1.50,2.88, p<.001	Opportunities for family involvement, RR=0.47, CI=0.28,0.80, p<.01; Enjoy family involvement, RR=0.47, CI=0.27,0.82, p<.01; Opportunity for school involvement, RR=0.57, CI=0.41,0.79, p<.01
(23) Tyler & Bersani, 2008; Longitudinal	USA	1,579	Data obtained from the National Longitudinal Survey of Youth-97 (NLSY-97).	12-13 during baseline, 14-17 at follow up	51%	22% African American, 20% Hispanic	Risk factors: associated with homelessness group compared to control: Behavioral disorders, OR=3.00, CI=1.58,5.73, p<.001; Poor youth/parent relationship, OR=2.28, CI=1.20,4.35, p<.05; High level of parent violence (abuse), OR=2.17, CI=1.13,4.17, p<.05; Prior placement in substitute environment outside the home, OR=2.15, CI=1.13,4.09, p<.05	Not reported.
(24) Shelton et al., 2009; Cross-sectional	USA	14,888	Data obtained from wave 3 of the National Longitudinal Study of Adolescent Health	18-28	47%	33%	Predictors associated with increased risk of running away in mid-adolescence: Female, B=0.81, SE=0.25, p .01; Neighborhood victimization, B=0.49, SE=0.22, p .05; Personal victimization, B=0.31, SE=0.15, p .05; School suspension, B=0.99, SE=0.31, p .01; Delinquency, B=0.58, SE=0.10, p .01	Predictors associated with decreased risk of running away in mid-adolescence: Higher SES, B=-0.15, SE=0.07, p .05 African American: B=-0.88, SE=0.28, p .01; Hispanic, B=-0.64, SE=0.31, p .05; Monitoring style parenting, B=-0.10, SE=0.04, p .01
							Variables associated with homelessness: Age at follow up, OR=1.17, CI=1.10,1.25, p<.01; Native American, OR=2.06, CI=1.34,3.16, p<.01; Ever ran away, OR=4.03, CI=3.13,5.19, p<.01; Ordered out of home by parents, OR=3.16, CI=2.48,4.03, p<.01; Parental caregiver neglect, OR=1.47, CI=1.09,1.98, p=0.03; Foster care, OR=2.15, CI=1.34,3.45, p<.01; Adopted, OR=1.65, CI=1.05,2.61, p<.01; Biological father incarcerated, OR=1.45, CI=1.13,1.87, p<.01; Duration of welfare assistance before age 18, OR=1.14, CI=1.05,1.25, p<.01; Economic difficulty in the past 12 months, OR=1.23, CI=1.11,1.35, p<.001; Ever diagnosed as having depression: OR=1.61, CI=1.17,2.23, p<.01; Psychiatric hospitalization (past 5 years), OR=1.82, CI=1.08,3.08, p=0.03; Addiction problems - drugs (past12 months), OR=1.16, CI=1.04,1.29, p=0.01	Variables associated with homelessness: Hispanic, OR=0.70, CI=0.50,0.99, p=.04; Grade when respondent left school, OR=0.88, CI=0.82,0.94, p<.01; Currently employed, OR=0.76, CI=0.60,0.97, p=.03

Study	Country	Sample Size	Sampling strategy	Age range (years)	Male sex (%)	Minority race (%)	Risk factors (factor & effect size)	Resilience factors (factor & effect size)
(16) Fowler et al., 2009; Retrospective	USA	265	Foster youth were contacted from Department of Human Services Records whose foster care had ended between 2002 and 2003. Interviews were conducted during 2005 & 2006.	19–23, M = 20.5	48%	78% African American, 22% White, 1% were members of another racial/ethnic group	Grouped into 4 categories of housing stability (since leaving foster care): Continuously stable (n=153), Decreasingly stable (n=29), Increasingly stable (n=31), Continuously unstable (n=52). Non-White (all classes compared to continuously stable), b=-0.38, SE=0.12; t=-3.20; More placement transitions while in foster care (continuously unstable compared to continuously stable), b=0.64, SE=0.22, t=2.94; Less likely transition out of foster care after independent living placements (continuously unstable compared to continuously stable), b=-0.66, SE=0.31, t=-2.17; Younger at exit from foster care and more placements during time in the system (decreasingly stable compared to continuously stable), b=0.77, SE=0.40, t=1.99; Less likely to have left foster care after restrictive placements (increasingly stable compared to continuously stable); b=-0.63, SE=0.31, t=-2.04	Not reported.
(17) Dworsky & Courtney, 2009; Longitudinal	USA	321	Data were obtained from the Midwest study, a longitudinal data set on foster youth	17 or 18 at baseline, 19 at second interview, 21 at final follow up	49.2%	54.8%	Risk factors predicting homelessness after exiting foster care: Physically abused by primary caregiver, OR=2.95, p<.05; Currently placed in a group care setting, OR=4.03, p<.05; Ran away while in care more than once, OR=7.96, p<.001; Number of delinquent behaviors, OR=1.19, p<.05	Resilience factors protecting against homelessness after exiting foster care: Very close to at least one adult family member, OR=0.32, p<.05

Note: All confidence intervals are 95%