Stress, Trauma, and Illness for Women Experiencing Homelessness: The Need for Integrated Trauma-Informed Care

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Abstract
Stressful and traumatic events predispose women to homelessness, but being homeless also places women at risk for experiencing traumatic events. This vicious cycle is further worsened by physical ailments. We apply the stress-process model to examine the relationship between stressful life events, victimization, and chronic physical conditions with a sample of 150 women experiencing homelessness in three U.S. cities. Correlation results indicate significant associations between the prevalence of childhood abuse, stressful life events, victimization while homeless, and the number of chronic health conditions. Regression models show significant relationships between child abuse, stressful life events, and the number of chronic conditions experienced by homeless women. As stress-process model research hypothesizes, primary or early traumas can reduce coping resources and make individuals more susceptible to later secondary traumas and re-victimization experiences due to inability to handle stress. By acknowledging these women as victims of traumatic and stressful lives before and during episodes of homelessness and by utilizing a trauma-informed care model during treatment, service providers may be able to better address their currently unmet health needs.

Keywords: stress-process model, trauma-informed care, homeless women, victimization, chronic conditions, and child abuse

Introduction
Despite recent federal strategic plans to both prevent and end homelessness, it is still a problem in the United States. As of December 2017, 553,742 Americans experienced homelessness on a given night, and 39% of those experiencing homelessness were women.[1] Although many efforts to assist women out of homelessness and poverty have been undertaken, many women cycle through the system and return to homelessness.[2] To understand the needs of homeless women and uncover how to properly distribute care, it is important to understand the interconnected and cyclical nature of victimization, stress, homelessness, and the toll they take on an individual's health. Trauma and victimization throughout the lives of women may act as a seemingly insurmountable barrier to proper care, especially while experiencing homelessness. Stress and trauma underlie many of the initial causes and continuous nature of homelessness for women.[3,4] Understanding trauma and stress as root causes of homelessness can bring about new and potential changes to existing services for homeless individuals. This study has two primary aims. First, we examine the relationship between stress, trauma, and chronic physical conditions within a homeless female population. Second, we highlight the need for trauma-informed healthcare administration for homeless populations.

Background
The Stress-Process Model
This study utilizes Pearlin's stress-process model as an orienting framework, which views stress as dynamic, commonplace, and arising from participation in society[5,6] Within this model, stress is conceptualized in a number of forms including: chronic stress, a singular traumatic or stressful experience, repeated traumatic events, secondary stress, and contextual stress. The stress-process

model also allows researchers to look into the accumulation and proliferation of various types of stress and how primary-occurring stressors lead to additional secondary stressors.[6] Chronic stressors are "relatively enduring problems, conflicts, and threats that many people face in their daily lives".[5] Traumatic stressors are "sudden, unanticipated, dramatic, and clearly threatening experiences" like natural disasters and sexual assaults.[7] Traumas are most often considered a discrete form of stress, but can also develop into chronic traumatic conditions due to event fear and anticipation. Primary stressors, e.g., chronic stressors and traumatic stressors, can lead to secondary stressors such as depression, family or work dysfunction.[8] Contextual stressors are threat exposures due to membership in social units based on race, class, mental health status, and socioeconomic status.[7,9,10]

The stress-process model focuses on how the organization of society and one's social place play a part in determining exposure to stressors, availability of coping resources (stress mediators), and health outcomes. Substantial research supports the notion that stressors encountered by people in society are unequally distributed among the population. For example, much research finds associations between psychological distress and one's gender, marital status, and socioeconomic status [11,12] Single individuals, females, LGBTQ+ members, those from low socioeconomic backgrounds, and other minority groups tend to encounter more chronic and traumatic stressors over their lifetime resulting in negative impacts to group members' psychological and physical health.[13,14] Encountering such stressors makes secondary stressors more likely and leads to stress proliferation in one's life.[13]

Stress can be mediated by coping resources and social supports. Coping resources are personal attitudes, behaviors, and values and social supports are friends, family, and group membership.[15] Both can alter what stressors one experiences and how stress affects health outcomes. In terms of the social distribution of coping mediators, however, those "groups most exposed to hardship are the least equipped to deal with it".[16] Females, racial minorities, unmarried, or lower SES individuals may be less able to cope with stress. For example, they may exhibit more fatalism and less self-esteem, which impact coping. [17,18] Gender is found to be a key component in determining exposure to stressors as well as ability to cope with stress. Women receive more perceived support than men due to women's likelihood of having significantly larger, better quality, and more frequent contact with both formal and informal social networks. [5,17] Coping styles and techniques are also distributed by gender; women have been shown to cope with stressors in a more expressive manner, while men tend to respond more stoically."[10]

Most importantly, exposure to stress, lack of coping resources, and lack of social supports affect an individual's physical and mental health.[19,20] Research shows as multiple stressors proliferate in an individual's life, the body reacts, resulting in an increased allostatic load.[21] The allostatic load is when the body continues to release hormones in response to stress. This constant hormonal response deteriorates, or "weathers", many biological processes, leading to morbidity, rapid cell aging, and mortality.[22] Chronic stress is found to expose individuals to heart problems, obesity, psychiatric problems, and substance use problems.[23-25] Epidemiological research shows that the most disenfranchised groups in society collectively experience more risk for encountering stressors, stress proliferation, and negative health outcomes.[13]

Trauma, Stress, and Homelessness

Stressors, or stressful experiences, are the "conditions with potential to arouse adaptive capacity of individuals".[6] Trauma is "an experience that creates a sense of fear, helplessness, or horror, and overwhelms a person's resources for coping".[26] Experiencing life as a homeless person is a traumatic experience.[26,27] Women experiencing homelessness represent a very vulnerable subset of the homeless population. Some research indicates that in some conditions, females are exposed to more stressors, are more vulnerable to stress, experience higher levels of stress, and do not cope with stress as well as men.[28]

While not all women who experience trauma and stressors become homeless, the majority of homeless women have experienced issues like childhood abuse, poverty, intimate partner violence, assault, and abuse while deployed in the military before experiencing homelessness.[27,29-33] Subsequent depression and anxiety about prior traumas contribute to women's repetitive and/or chronic episodes of homelessness due to dilapidated coping skills, and impaired ability to keep healthy relationships or trust others.[31,32] Traumatic experiences also magnify feelings of stress, powerlessness, and social isolation which help make women more susceptible to re-victimization while on the streets.[31,34] Furthermore, homeless women continually deal with stressors that perpetuate their homeless condition like chronic medical conditions, pregnancy, caring for dependents, unemployment, assault, and inability to obtain vital resources (e.g., food, shelter, and medical care). Over time, chronic stressors physically and mentally break down women experiencing homelessness, resulting in anxiety, depression, post-traumatic stress disorder (PTSD), attention deficits, immune system exhaustion, and substance dependence.[26,28,34-36] As health worsens, accessing care becomes more difficult. Poor mental and physical health that is caused, worsened, and perpetuated largely by trauma acts as barriers to the care needed to rectify those exact problems.

Homelessness and Illness

Homelessness complicates the ability to maintain proper physical health. Trauma and chronic stress tax the immune system, making individuals more susceptible to sickness and disease.[26] Homeless individuals, both male and female, suffer high rates of tuberculosis, environmental exposure, infestations, skin and foot problems, and respiratory infections.[29,37-39] Women suffer a variety of unique medical issues due to barriers in access to nutrition, regular health care, and hygienic practices.

Specifically, homeless women more often suffer medical issues like ulcers, asthma, and sexually transmitted diseases.[40,41] Females experiencing homelessness are likely not to receive adequate nutrition resulting in iron deficiencies, anemia, obesity, high cholesterol, and chronic illness mismanagement.[42,43] Chronic conditions seen in the female homeless population include hypertension, gastrointestinal problems, neurological disorders, arthritis, pulmonary diseases, peripheral vascular disease, and muscular skeletal disorders.[44,45]

Barriers to Healthcare

Homeless women living on the streets utilize very little healthcare compared to other populations. They are least likely to be hospitalized, utilize preventative care methods, or obtain health screenings.[46] Common and easily treatable ailments advance into extremely problematic issues that leave females too sick to obtain necessary care.[47] Preventative care could negate the devastating consequences of many ailments experienced by homeless women, but homeless

women are not likely to have regular care doctors.[48] Food and housing insecurity relate to postponing medications, medical care, and hospitalization.[49] Acquisition of essential resources like food and shelter take priority over medical care. Small issues become acute and require immediate medical attention often in a pricey emergency room setting.[50-52] These chronic conditions serve as stressors that act as a barrier to obtaining stable housing.[53] Common barriers to care cited by homeless women include transportation issues, inconvenient hours, lack of childcare, long office wait times, complicated bureaucratic systems, cost, and lack of insurance.[37,54]

Women who experience trauma often develop coping mechanisms that keep them from seeking medical care or properly utilizing available sources of care. [46] Medical professionals may also misinterpret traumatized women's behavior as adversarial, leading them to deny proper care or improperly assess symptoms and needs. Other research shows that women perceive the health care system as adversarial-a forgotten or lost form appears like an attempt at medical care fraud and services are immediately denied.[55] Culture and language differences also serve as barriers to care as women who cannot read, are deaf, or do not speak English have trouble reading health care-related signs, accessing people who can direct them to health services, or communicating their needs to medical professionals.[56] Young homeless women indicate that they often do not understand medical terminology or forgo care because the treatment option provided did not align with belief systems.[57] Additionally, the experience of going to a hospital can be a triggering and traumatic event. Some women do not want to seek care out of fear of bad medical news.[58] The Substance Abuse and Mental Health Services Administration (SAMHSA)[59] indicates that re-traumatization occurs for women while attempting to access medical care. Women experience an inability to choose their own physician, mistrust of male medical staff, and lack of access to food, water, or facilities. Additionally, many women are uncomfortable with the experience of undressing and being left alone in a room for extended periods while confused about what is going on. For women previously locked in rooms, physically and/or sexually assaulted, and left unsure about the future state of their lives, the hospital experience is far too reminiscent of past traumas.

The Current Study

Homeless women experience high rates of trauma, which impact their physical health and may serve as a barrier to seeking care, thus exacerbating health problems. We examine the relationships between stressful life events, traumatic victimization experiences, and chronic physical conditions with a sample of women reporting being homeless. We hypothesize that women experiencing frequent stressful life events and traumatization will also experience high rates of medical issues. While the interaction between stress and health is well-known in the literature, this particular population of women experiencing episodes of homelessness requires increased attention.

Data and Methods

Procedures

The data utilized come from Novel Approaches to Understanding Mental Disorder, Substance Abuse, and HIV Risk among Homeless Women Pilot Study. Homelessness was operationalized using the definition provided in the Steward A. McKinney Act of 1987: a person is homeless if

they lack “a fixed, regular, and adequate nighttime residence, if their primary nighttime residence is a supervised, publicly, or privately operated shelter designed to provide temporary living accommodations, an institution that provides temporary residence for individuals intended to be institutionalized, or a public or private place not designed for or ordinarily used as regular sleeping accommodations for human beings”. [60] In addition, women who reported “doubling up”, that is, “staying with family, friends, or someone else where they are not contributing to the rent and they expect to be asked to leave in less than two months” [61] were also considered homeless.

The study utilized a multiple frame sampling approach [62,63] to target homeless women in three cities across the United States (Omaha, NE, Portland, OR and Pittsburg, PA). A total of 561 individuals were invited to participate between August 2010 and May 2011 using 1) systematic random sampling of women utilizing shelters, 2) in-person contact at meal locations based on predetermined random starts and skip intervals, and 3) in-person contact at outdoor locations (all women at these locations were approached). After screening for mental health and substance use issues, informed consent was requested and obtained. One hundred forty-six participants were eliminated from study participation because they did not meet criteria for homelessness (n=64), did not identify as a woman (n=33), were younger than age 19 or older than age 54 (n=38), or were already selected from another sampling frame (n=11). Researchers excluded women older than age 54 because there are government assistance programs available to seniors starting at age 55. The researchers did not want the additional access due to age to skew results. An additional 45.9% (n=207) did not respond to contact letters at shelters or were missed at outdoor/meal locations. Of the 208 eligible and contacted participants, 8% refused interviews (n=45). Five individuals interviewed twice; their duplicate interviews were removed from the study leaving a total sample population of 159 women experiencing episodes of homelessness.

Interviews lasted approximately two hours. Women who participated received a $20 gift card to a local store for participation in each of the two sessions. The interviews included four survey instruments. During the first interview session, the women completed the Composite International Diagnostic Interview (WHO-CIDI) and the Diagnostic Interview for DSM-IV Personality Disorders (DIPD-IV). In the second interview session, women completed a Paper and Pencil Event History Life Experience Interview, an event history calendar, and a self-administered questionnaire.

Measures

Questions were selected from the Self-Administered Questionnaire and the Paper and Pencil Event History Life Experience Interview. The dependent variable, *chronic conditions*, was assessed by asking participants whether, in the past 12 months, they had experienced or were told by a doctor or other health professional they had any of 12 health conditions (see Table 1).

Table 1. Prevalence of Chronic Medical Conditions in Past 12 Months (n=137)

	Number (%)
Chronic back or neck problems	63 (45.99%)
Seasonal Allergies	62 (45.26%)
Frequent or Severe Headaches	52 (37.96%)
Arthritis or rheumatism	51 (37.22%)
Other Chronic Pain	42 (30.66%)
High blood pressure	38 (27.74%)
Asthma	41 (29.93%)
Diabetes or high blood sugar	17 (12.41%)
Thyroid disease	17 (12.41%)
Ulcer in stomach or intestine	16 (11.68%)
Other lung disease	12 (8.76%)
Cancer	7 (5.11%)
Heart disease	6 (4.38%)
Neurological problems	4 (2.92%)
Tuberculosis	3 (2.19%)
Epilepsy or seizures	3 (2.19%)
Malaria or other parasitic diseases	2 (1.46%)
Stroke	2 (1.46%)
At least one chronic condition	120 (87.59%)

Affirmative responses were summed into a count of chronic health conditions. The focal independent variables included were *stressful life events*, *victimization while homeless*, and *childhood victimization*. The first was measured by asking participants whether they had experienced any of 19 discrete events over the past 12 months, including divorce, death of a spouse, personal injury or illness, or death of a close friend (shown in Appendix 1). *Victimization while homeless* was assessed as a binary variable indicating whether participants had experienced any victimization on the street, including being robbed, beaten up, or sexually assaulted (1=victimized; 0=not victimized). *Childhood victimization* was measured as a binary variable indicating whether the participant had experienced any physical, verbal, or sexual abuse before they were 18 years old (1=abused; 0=not abused). We controlled for *age* and *number of months homeless*.

Missing Data and Analytic Plan

Of the 159 women in the sample, 137 had valid data on all of the measures used in the current study. Nine women had missing values on all but the number of months homeless and were deleted from the analytic sample. Multiple imputation with chained equations was utilized to impute values for the remaining 13 cases with STATA *mi impute*.[64] This procedure resulted in a final analytic sample of 150.

Analysis proceeded in two stages. First, we present univariate and bivariate statistics for the study variables. Frequencies and bivariate correlations for the chronic health conditions using non-imputed data are shown in Tables 1 and 2, respectively. Using the imputed data, we used ordinary least squares regression to analyze the adjusted associations between the independent variables and chronic health conditions, shown in Table 3.

Table 2. Pearson's correlations among study variables (n=137)

	1	2	3	4	5	6
1. Chronic conditions	1.00					
2. Stressful Life Events	.37***	1.00				
3. Victimization While Homeless	.26**	.33**	1.00			
4. Childhood Abuse	.21*	.17*	.10	1.00		
5. Months Homeless	.04	.17*	.33**	.10	1.00	
6. Age	.34***	-.03	.08	-.06	.05	1.00

***p<.001; **p<.01; *p<.05

Table 3. Ordinary least squares regression of relative relationships between stressors and chronic health conditions (n=150)

	B	*se*	*t*
Stressful Life Events	0.24	0.07	3.57***
Victimization while Homeless	0.39	0.40	0.98
Childhood Abuse	0.84	0.42	2.02*
Months Homeless	0.03	0.04	0.83
Age	0.09	0.02	5.18***
Constant	-2.32	0.87	-2.67**
Adjusted R^2	0.25		

***p<.001; **p<.01; *p<.05

Note: In a negative binomial model, patterns of relationships and significance of coefficients are virtually the same.

Results

Demographics

Descriptive statistics for the study variables are provided in Table 4. The 137 women in the study ranged from 19-54 years of age (M=38.37; SD =10.31) and had been homeless on average 6.05 months over the course of their lives (*SD* = 36.09). The women experienced an average of 4.14 stressful life events related to relationships, homelessness, and general life within the past 12 months of the study (*SD* = 2.87). About two-fifths of women (43%) reported being victimized while homeless. Approximately three-quarters (76.92%) experienced abuse during their childhood.

Table 4. Descriptive Statistics of Sample Population

Variable	Mean	Standard Deviation	Min	Max	Description
# of Chronic Conditions	3.28	2.47	0	12	Number of chronic conditions experienced or diagnosed within the past 12 months
Age	38.89	10.18	19	54	Age in years
Child Abuse	0.75		0	1	0=no experience of child abuse 1=experience of child abuse
Months Homeless	8.89	4.73	1	192	Number of months homeless in lifetime
Stressful Life Events	4.11	2.89	0	12	Stressful events related to relationships, homelessness, and general life experiences within the past 12 months
Victimized while Homeless	0.45		0	1	0=no victimization while homeless 1= Experienced being beaten up, robbed, sexually coerced, raped, threatened with a weapon, and/or assaulted with a weapon while homeless

Prevalence of Chronic Conditions

Many women experiencing homelessness also experienced chronic illness or were diagnosed with a medical condition within the past 12 months of time of study. Only 17 women (13.08%) reported no chronic ailments. Five women reported as many as 9 (3.85%) co-occurring chronic conditions ($M = 3.28$ $SD = 2.55$). The most common chronic conditions were chronic back or neck problems (45.99%) seasonal allergies (45.26%), frequent or severe headaches (37.96%), and arthritis or rheumatism (37.22%). Additionally, 42 respondents (30.66%) stated they experienced other forms of chronic pain and 41 (29.93%) reported having asthma. Other common conditions within the past year included diabetes (12.41%), thyroid disease (12.41%), and ulcers (11.68%). Less than 10% of the sample reported other lung diseases (8.76%), cancer (5.11%), heart disease (4.38%), neurological problems (2.92%), tuberculosis (2.19%), malaria or other parasitic diseases (2.19%), epilepsy or seizure conditions (2.19%), or stroke (1.46%).

Bivariate Associations

Several statistically significant bivariate relationships were found between the study variables. Chronic health conditions were positively associated with stressful life events ($r = .37$, $p<.001$), victimization while homeless ($r = .26$, $p<.01$), and childhood abuse ($r = .21$, $p<.05$). Health conditions were also positively correlated with age ($r = .34$, $p<.001$). Stressful life events were positively associated with victimization while homeless ($r = .33$, $p<.001$) and with childhood abuse ($r = .17$, $p<.05$). Victimization while homeless and childhood abuse were positively associated ($r = .33$, $p<.001$).

Multivariate Regression

Ordinary least squares regression was conducted to test for significant relationships between the unstandardized independent and dependent variables (See Table 3). Stressful life events were positively associated with chronic health conditions ($b = .24$, $p<.001$) as was any childhood abuse ($b = .84$, $p<.05$), controlling for age and number of months homeless. For each additional stressful life event, chronic health conditions were predicted to increase by .24. Compared to never experiencing child abuse, having a history of child abuse increased chronic health conditions by .84. Participant age was also positively associated with health, such that for each year of age, chronic health conditions could be expected to increase by .09 ($p<.000$). Neither victimization while homeless nor the number of months homeless were associated with health. The F-statistic of overall model significance is 11.04 and the p-value=0.000.

Discussion

Findings from this regression model point to significant relationships between child abuse, stressful life events, and the number of chronic conditions experienced by homeless women. As the stress-process model research hypothesizes, primary or early traumas can reduce coping resources and make individuals more susceptible to later secondary traumas and re-victimization experiences due to inability to handle stress. The stress model says that chronic and prolonged exposure to stressful and traumatic events not only make women more vulnerable to additional stress and trauma, but also "weather" the body's biological capacity to cope with stress and strain. While much of the literature associates these forms of trauma and stress to mental disorders, the findings from this study mirrors findings showing relationships between stress, lack of resources, and physical ailments.[65,66,67,68]

Experiencing chronic health conditions make the experiences of homelessness even more complicated. "Chronic conditions are considered extreme stressors impacting homeless women's ability to obtain stable housing".[53] Not only are homeless women subject to more stressors, they also face a variety of additional female health consequences related to pregnancy and childbirth. Prior research shows how trauma and victimization act as a barrier to proper medical care.[69] For example, 30.77% of this sample indicated that they needed to see a doctor or nurse within the last 12 months but were unable to do so. While this descriptive statistic does not fully address the relationship between trauma and access to care, it does indicate that there is work to be done to help women get proper access to care.

Trauma-Informed Care

To circumvent the compounding problems of trauma and barriers to proper care, both medical professionals and homelessness service providers should utilize the developing model for "trauma-informed care". The trauma-informed care model is a framework connecting understandings of biological processes, psychological stress and trauma, and sociological determinants of health like poverty, racism, and gender inequality to address social health problems.[70] The trauma-informed care model acknowledges stress, trauma, and social disadvantage and their effect on mental and physical health. Issues deriving from repeat, prolonged stress make it difficult for individuals to seek help or use available assistance advantageously for physical and mental problems that arise due to and exacerbated by social disadvantages. The trauma and stress that result from exposure to poor social environments, either before or during episodes of homelessness, predispose individuals into developing issues with cognition, trust, planning, and communication. Biopsychosocial integration readdresses how individuals see disadvantaged groups as to better deliver care. Instead of seeing individuals as aggressive, ignorant, or the cause of their own disadvantage, advocates see individuals as victims of stress and trauma. The majority of these individuals experienced childhood neglect or abuse, interpersonal violence and negative social stigmas through life. Negative attitudes and behaviors displayed are merely habits formed as coping mechanisms to adverse events and prolonged disadvantage.[71] A recent United States Interagency Council on Homelessness report indicates that utilization of the trauma-informed model could help to facilitate the end of homelessness.[1]

Currently, both the field of medicine and homeless service settings respectively see the value in using a trauma-informed care model. However there is currently little research specifically on the integration of health care services within homeless service settings. This may be due to gaps in available outcomes studies utilizing trauma-informed care models within homeless populations[26] as well as the lack of consensus as how to specifically apply trauma-informed care models within daily health care practices for general populations.[72]

There exists a major need for inter-professional collaboration between medical treatment services and homelessness services utilizing a trauma-informed care model. Take, for example, situations where both services are needed concurrently: volunteer medical treatment programs for the homeless, outpatient services for individuals in homelessness specialty courts, as well as within jails and prisons. For example, 63.85% of this study sample had been to jail, prison, or correctional facility since the age of 18. Creating integrated programs of healthcare and other services for the homeless will help to facilitate multiple forms of assistance called "systems-of-

care". Doctors working with homeless populations know to be on the lookout for signs of trauma to adjust approach and overcome the hurdles this population put up as coping mechanisms. Additionally, group therapy, counseling, and social groups aimed at helping the female homeless population create potential for social support structures to decrease stress and increase self-efficacy so individuals learn proper coping skills for past and future traumas. Some programs have made moves to sensitize health care students to working with vulnerable populations. For example, University of New Mexico Health Sciences Center (UNMHSC) provides an inter-professional education model for training for their fourth year medical and pharmacy students in their Street Outreach and Shelter Care elective to promote interest in working with homeless populations, foster acceptance, and improve health outcomes[73]. While the inter-professional collaboration of social workers, health care, and housing appears to be the correct direction for reducing negative health outcomes and issues of homelessness, there is currently little rigorous literature defining how to effectively collaborate. [74,75] It is possible, however, when a community is willing to socially support and allot funding for said programs.[76]

Limitations and Future Research

Rates of mental disorders and substance use are prevalent in women experiencing episodes of homelessness and make up a core issue experienced by individuals who experience stress and trauma. The stress-process model indicates that mental weathering is a very prominent issue. However, we chose to leave the variables related to the samples substance use and mental health out of this research due to their focus in the 2015 article, *Borderline personality disorder and Axis I psychiatric and substance use disorders among women experiencing homelessness in three US cities* by Whitbeck, Armenta, & Welch-Lazoritz, which utilizes the same data set.[77]

Birectionality between health conditions and stressful life events serves as a potential limitation of this study. Additionally, two of the stressful life events "felt ill" as well as "personal injury or illness" were variables designed to capture non-chronic ailments like the cold, bronchitis, or a broken leg. However, there exists a possibility that the measure captured chronic illness symptoms rather than non-chronic, common ailments depending on how the question was interpreted by respondents. The small sample size used in this research acted as a barrier to using additional variables and potentially finding other important relationships between trauma, stress, and illness. Our future research, should focus on the discovery of contextual stressors as well as stress mediators as these are both important, but overlooked variables within this project. Additionally, path modeling would bring light to the complicated relationships between trauma, stress, illness and access to care in the context of the stress-process model.

Conclusion

The stress-process model is a useful conceptual framework for bridging relationships between trauma, stress, and negative health outcomes. This study shows correlations between stress and trauma, and poor physical health within the female homeless population. By acknowledging these women as victims of traumatic and stressful lives before and during episodes of homelessness, we may be able to address their currently unmet health needs. Acknowledging how negative life experiences affect health outcomes as well as one's ability to get proper medical assistance is important in creating informed care programs. While medical professionals and homelessness service providers both respectively see the value in using trauma-informed care models, proper integration and communication between these two service providers will provide increased service access, proper utilization, and positive experiences among homeless women. As physical health acts as a barrier to stable housing, proper program organization may help to end the cycle of homelessness among homeless women and provide opportunities for their children as well. By researching the complicated relationship and debilitating effects of trauma, stress, and physical health of the homeless female population through the stress-process model and creating programs informed by such research, we may be able to better meet future health needs and contribute to ending homelessness.

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Appendix 1. Stressful Events Experienced in the Past Year

	% Yes
Relationship-related	
Divorce	4.4
Marital separation	13.8
Death of a spouse or partner	3.1
Death of a close family member	30.8
Death of a close friend	15.1
General stressful events	
Personal injury or illness	28.3
Fired from work	5.7
Arrested	18.9
Hassled by police	12.6
Felt Ill	45.9
Homeless-related stressful events	
Went hungry for a day	40.3
Problems finding shelter	34.6

Kicked out of a shelter	8.8
Reached maximum stay at shelter	18.9
Argued with shelter or day center staff	16.4
Overcrowding where staying	20.8
Problems finding food	16.4
Problems finding showers	12.6
Lost ID or birth certificate for self or child	25.8