Child Adolesc Soc Work J (2017) 34:349–359
DOI 10.1007/s10560-016-0464-2

A Theory of Mental Health and Optimal Service Delivery for Homeless Children

Katherine E. Marcal[1]

Published online: 18 October 2016

Abstract Homeless children are a vulnerable group with high risk for developing mental health disorders. The pathways to disorders among homeless children have not been fully elucidated, with significant logistical and measurement issues challenging accurate and thorough assessment of need. The environments of homeless children are uniquely chaotic, marked by frequent moves, family structure changes, household and neighborhood disorder, parenting distress, and lack of continuous services. Despite high rates of service use, mental health outcomes remain poor. This paper reviews the literature on homeless children's mental health, as well as prior theoretical explorations. Finally, the paper proposes a theoretical model that explains elevated rates of mental health problems among homeless children as consequences of harmful stress reactions triggered by chronic household instability along with repeated service disruptions. This model draws upon existing conceptual frameworks of child development, family poverty, health services utilization, and the biology of stress to clarify the role of environmental chaos in the development of child emotional and behavioral problems. Potential strategies to mitigate the risk for mental health disorders among homeless children and future research directions are discussed.

Keywords Family homelessness · Mental health · Child development · Service delivery · Theory

Homeless children comprise one of the most vulnerable groups in the US. They experience greater exposure to extreme poverty, household chaos, family instability, and violence than their stably housed peers, with significant consequences for psychological well-being. Up to two in five children who have experienced a homeless episode suffer from a clinically diagnosable mental health disorder—more than twice the rate seen among comparable non-homeless children (Bassuk, Richard, & Tsertsvadze, 2015). Despite high rates of service use across multiple systems, mental health outcomes among these children remain poor. The pathways to mental health disorders among homeless children are not fully understood, with significant financial and human capital costs. This paper contends that mental health problems among homeless children must be considered in light of chronic instability beyond a single homeless episode, and current service delivery practices exacerbate rather than mitigate the underlying chaos that characterizes homeless children's lives. A theoretical model is proposed to explain elevated rates of mental health problems among homeless children as the result of accumulated stress triggered by chronic instability, including repeated service disruptions, as well as to identify potential leverage points for intervention. Homelessness is presented as an extreme form of instability that occurs in the more enduring context of poverty, which threatens healthy child development through ongoing upheaval and corresponding stress reactions. This model draws upon existing conceptual frameworks of child development, family poverty, and health services utilization to elucidate the role of environmental chaos in the

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✉ Katherine E. Marcal
kemarcal@wustl.edu

[1] George Warren Brown School of Social Work, Washington University in Saint Louis, One Brookings Drive, Campus Box 1196, St. Louis, MO 63130, USA

development of child emotional and behavioral problems. Potential strategies to stabilize vulnerable families include coordination of services and continuity of care across multiple domains to reduce rather than intensify chaos in these children's lives.

Overview of Family Homelessness

Homelessness among families with children is a costly and entrenched problem in the US. In January 2015, the U.S. Department of Housing and Urban Development estimated 206,286 homeless people in families were experiencing literal homelessness (living in a shelter or other institution, living on the streets or somewhere not meant for human habitation, or otherwise lacking a fixed nighttime residence); nearly 60 % of these individuals were children (Henry, Shivji, de Sousa, & Cohen, 2015). Using a broader definition of homelessness that included families doubling up with friends or relatives, the U.S. Department of Education estimated that more than 1.2 million children experienced homelessness at some point during 2013 (Bassuk, Decandia, Beach, & Berman, 2014). At any given time, thousands of American families lack safe, stable, affordable housing.

Homeless families differ from homeless single adults in important ways. These families are typically female-headed, young, and poor (Rog, Holupka, & Patton, 2007). Chronic homelessness among families is rare, with the majority experiencing brief homeless episodes before returning to independent housing situations (Culhane, Metraux, Park, Schretzman, & Valente, 2007). Homeless episodes are frequently precipitated by some crisis or "life shock" such as a health problem, job loss, or break-up that destabilizes a family and exhausts its resources (Curtis, Corman, Noonan, & Reichman, 2013; O'Flaherty, 2009). Furthermore, homeless families are primarily served in shelters rather than living on the streets (Henry et al., 2015). An analysis of shelter use patterns among families in four jurisdictions across the US revealed that approximately three-quarters experienced brief, one-time shelter stays, 20 % experienced longer stays, and 5–8 % cycled in and out of shelters repeatedly (Culhane et al., 2007). Literal homelessness is a temporary state through with families pass rather than a permanent, intractable condition (Shinn et al., 1998).

Homelessness and Child Mental Health

The Environment of Homeless Children

Healthy child development depends upon security, stability, and engaged caregiving (Shonkoff et al., 2012). Adversity in early childhood may trigger problems across multiple domains that impact physical, psychological, and cognitive well-being (Aber, Bennett, Conley, & Li, 1997). Children in poor families frequently face highly chaotic, unpredictable, risky conditions such as overcrowding, poor housing quality, lack of family routines, and neighborhood disorder and crime, with negative impacts on child well-being (Coley, Kull, Leventhal, & Lynch, 2014; Evans & English, 2013; Sampson & Groves, 1999). Exposure to household chaos is associated with worse child outcomes on a number of socioemotional indicators such as learned helplessness, psychological distress, behavior problems, and developmental delays (Coley, Lynch, & Kull, 2015; Evans, Gonnella, Marcynyszyn, Gentile, & Salpekar, 2005).

Homeless children represent a subset of the very poor facing heightened exposure to environmental adversity (Anooshian, 2005). A homeless episode is frequently preceded by a period of residential instability during which a family may move multiple times, double up with friends or relatives, or endure poor quality or inadequate housing conditions before a crisis tips the family into literal homelessness (Bassuk, Decandia, & Richard, 2014; Grant, Gracy, Goldsmith, Shapiro, & Redlener, 2013; Kilmer, Cook, Crusto, Strater, & Haber, 2012). Many families experience continued residential instability following shelter exit (Stojanovic, Weitzman, Shinn, Labay, & Williams, 1999). Periods of instability are not only associated with residential changes, but also with significant school mobility; disruptions to consistent instruction, curriculum, and peer networks further erode stability for children (Hong & Piescher, 2012; Miller, 2015; Pribesh & Downey, 1999). The lives of these families are characterized by the privations of poverty coupled with ongoing instability and disruption in their immediate environments.

Mental Health Problems Among Homeless Children

A large body of research over the past three decades has addressed whether homelessness constitutes an independent risk factor for child mental health problems above and beyond the effects of poverty (Grant et al., 2013). Emotional and behavioral problems are highly prevalent among both homeless children and low-income housed children, with significant implications for development (Buckner & Bassuk, 1997; Haskett, Armstrong, & Tisdale, 2015). A "continuum of risk" has been conceptualized by which homeless children display the highest rates of disorders followed first by low-income housed children, then by non-poor housed children (Buckner, 2008; Masten, Miliotis, Graham-Bermann, Ramirez, & Neemann, 1993). According to this framework, homelessness is identified as uniquely detrimental to child well-being in addition to the

detrimental effects of poverty. While many homeless families do experience the conditions common to financial hardship such as food insecurity or neighborhood violence, the experience of homelessness may encompass additional adversities such as disruption of peer and other supportive relationships, parental distress, forced school changes, and exposure to greater chaos and instability (Gewirtz, DeGarmo, Lee, Morrell, & August, 2015; Masten et al., 1993; Vostanis, Grattan, & Cumella, 1998).

Despite several years of research on the distinct impacts of poverty and homelessness, evidence remains mixed. Small sample sizes, lack of comparison groups, and inconsistent measures have challenged generalizability in this area. Many early studies showed elevated rates of mental health problems among homeless children (Bassuk & Rosenberg, 1990; Buckner, Bassuk, Weinreb, & Brooks, 1999; Rescorla, Parker, & Stolley, 1991) while others suggested no significant differences between homeless and low-income housed children (Masten et al., 1993; Park, Fertig, & Allison, 2011). More nuanced explorations, however, point to important disparities. Buckner and Bassuk (1997) found that prevalence rates of mental health disorders among homeless boys were more than double the rates found among low-income housed boys. Homeless boys were also most likely to suffer from disruptive behavior disorders while homeless girls were most likely to suffer from anxiety disorders (Buckner & Bassuk, 1997). Additional research has confirmed the elevated risk for behavior problems among homeless children (Cumella, Grattan, & Vostanis, 1998; San Agustin et al., 1999; Yu, North, LaVesser, Osborne, & Spitznagel, 2008), which are important indicators for subsequent psychopathology (Caspi, Moffitt, Newman, & Silva, 1996; Roza, Hofstra, Van Der Ende, & Verhulst, 2003). Furthermore, a recent meta-analysis found homeless children experienced mental health and behavioral problems at significantly greater rates than poor housed children as well as children in the general population. Up to 26 % of homeless preschoolers and 40 % of homeless school-age children presented with mental health problems severe enough to merit clinical evaluation—a rate estimated to be two–four times greater than that found among poor housed children. Overall, homeless children were nearly 80 % more likely than poor housed children to screen positive for a mental health disorder (Bassuk et al., 2015).

Inconsistent study findings regarding the independent impact of homelessness on child well-being may be explained in part by the overwhelming similarity between very poor families who do and do not lose their homes. Poverty, housing instability and homelessness are closely linked and difficult to disentangle, and the differences in outcomes among homeless versus poor housed children are likely underestimated (Buckner, 2008). The nature and dynamics of family homelessness obstruct efforts to draw clear distinctions between literally homeless children and comparably disadvantaged, low-income housed children; these groups tend to be more similar than they are different—particularly in comparison to middle- and upper-income children (Buckner, 2008). Most importantly, these patterns suggest extremely high levels of vulnerability and need associated with a lack of safe, stable housing before, during, and after a period of literal homelessness.

Explanations for mental health problems among homeless children emphasize the chaotic, stressful, and hazardous conditions that accompany homelessness. Shelter stays disrupt family dynamics and routines, impeding parenting processes and healthy child development (Mayberry, Shinn, Benton, & Wise, 2014). Homeless families may also report higher levels of exposure to violence and experience more trauma than poor housed families (Anooshian, 2005; Bassuk et al., 1996; Shinn, Knickman, & Weitzman, 1991). Residential instability and precarious housing before and after a shelter stay may compound the stressors of homelessness as families navigate tight housing markets with few resources and disrupted support networks. Furthermore, homelessness is closely linked with the mental health and coping of parents, most of whom are young single mothers (Shinn et al., 1998). Maternal depression has been identified as both a predictor (Curtis, Corman, Noonan, & Reichman, 2014) and an outcome (Bassuk & Beardslee, 2014) of homelessness, and rates of other psychiatric disorders among homeless mothers are elevated compared to the general population (Bassuk et al., 1996). Genetic profiles may thus predispose caregivers and children to life events such as job loss, break-ups, or other conflicts that increase likelihood of homelessness, as well as contribute to vulnerability to development of mental health disorders following exposure (Amstadter, Maes, Sheerin, Myers, & Kendler, 2016; Dougherty et al., 2013; Hohmann, Adamo, Lahey, Faraone, & Banaschewski, 2015). Epigenetics research has shown environmental adversity for children and caregivers to alter gene expression, particularly with regards to stress regulation and behavior (Blaze, Asok, & Roth, 2015; Romens, McDonald, Svaren, & Pollak, 2015). The experience of homelessness may trigger developmental processes with long-term consequences for mental health (Shonkoff et al., 2012). High levels of parenting stress and are observed among homeless families, which may contribute to child psychosocial risk (Park, Ostler, & Fertig, 2015). Furthermore, parents may also be confronted with competing demands for their attention and energies, from securing stable housing to addressing their own mental health, and child mental health may remain unaddressed in light of other urgent needs (Torquati, 2002). Psychosocial disorders among homeless children are likely multiply

determined and dependent upon factors beyond the experience of a single shelter stay.

Availability and Utilization of Services

Service delivery and utilization patterns are overlooked elements of homeless children's well-being. While housing and family instability are frequently cited as detrimental to children (Mayberry et al., 2014), disruptions in services are often not considered as threats to development. Contact with multiple service systems suggest high levels of need among homeless children, but may also indicate systemic inefficiencies and potential leverage points for improvement.

Given their vulnerabilities, children in homeless families rely on a great deal of services including emergency shelters, transitional housing programs, foster care, and health care (Spellman, Khadduri, Leopold, & Sokol, 2010). The nature of their service use and outcomes, however, indicate significant unmet psychiatric and psychosocial need. Investigation of utilization patterns suggests frequent contact with multiple social systems, particularly health care and child welfare (Culhane, Park, & Metraux, 2011; Park, Metraux, Culhane, & Mandell, 2012). Homeless children are frequently treated in emergency departments, primary healthcare settings, and social service agencies (Cumella et al., 1998; Weinreb, Goldberg, Bassuk, & Perloff, 1998), but specialized mental health care utilization lags—particularly in light of the prevalence of psychosocial disorders (Buckner & Bassuk, 1997; Lee et al., 2010; Redlener, Grant, & Krol, 2005).

Little is known about the patterns of mental health service use among homeless children. Shelters may provide important points of access to mental health services for children, with in-shelter screening and referral shown to be feasible and effective means of connecting children to resources (Lynch et al., 2015). Additional evidence suggests children may be more likely to receive mental health services upon shelter entry, perhaps because the stress of becoming homeless can trigger mental health problems, increased visibility of problematic behaviors in the shelter setting, or overlap between homeless services and the child welfare system, which frequently serves as a gateway to mental health treatment (Fowler et al., 2013; Park et al., 2012). Although increased access through shelters is an important achievement, lack of coordinated care before and after shelter stays may disrupt services and reduce their impact.

An investigation of the patterns of service use among homeless heads of households found that rates of outside service use dropped during shelter stays but rebounded to even higher levels upon shelter exit, though the patterns of child service use were not explored (Culhane et al., 2011). Further research indicates children's needs for mental health services persist after shelter exit regardless of length of stay and homeless services utilized (Vostanis et al., 1998). These findings may be interpreted in multiple ways. One interpretation is that the need for mental health services disappears during a shelter stay but returns upon exit. Although theoretically possible, this interpretation seems unlikely to be true given the high rates of emotional and behavioral problems observed among children in shelters (Bassuk et al., 2015). Another interpretation is that homeless shelters provide the equivalent of all mainstream services "in house," eliminating the need for outside services during a shelter stay. Many shelters do provide a number of services to families, but type and quality of services differ widely by shelter and city (Lorelle & Grothaus, 2015; Samuels, Fowler, Ault-Brutus, Tang, & Marcal, 2015). A third interpretation is that upon shelter entry and throughout the duration of a shelter stay, families are unable to maintain contact with mainstream services, even when services are still needed. Little research has examined continuity of care and coordination of multi-system services for homeless children throughout a homeless episode, so the extent of service disruption is unknown. Nonetheless, Culhane et al. (2011) findings suggest that shelter use supplants external service use temporarily but fails to stabilize families and reduce need over time, incurring greater costs across multiple social service systems and contributing to enduring mental health problems among homeless children.

Multi-System Service Use

Multiple system service use is a common pattern found among children with complex circumstances and needs, with access and continuity of care emerging as major challenges (Ungar, Liebenberg, & Ikeda, 2014). Entry into one service system may trigger contact with others, but little empirical evidence has explored these patterns among homeless families (Garland, Hough, Landsverk, & Brown, 2001). Many parallels may be drawn between homeless children and children in the child welfare system—groups both likely exposed to unstable and traumatic conditions. Far more research has examined the mental health service use patterns among foster children than among homeless children, and findings support the proposition that instability and frequent transitions have adverse consequences for development and well-being (Newton, Litrownik, & Landsverk, 2000). Nonetheless, patterns of service use associated with instability over time remain unclear. Placement changes have been identified as both a predictor of James, Landsverk, Slymen, and Leslie (2004) as well as a barrier to Raghavan, Inkelas, Franke, and Halfon (2007) mental health service use among children in foster care.

The role of instability in mental health outcomes and service use is poorly understood among vulnerable children (Bassuk, Volk, & Olivet, 2010).

Homeless children frequently encounter services across multiple systems due to needs across multiple domains, but this approach may in fact contribute to the chaotic nature of residential instability and poverty. High rates of service use among homeless children do not translate to improved child psychological well-being. Services are frequently provided by independent agencies for discrete needs, and may not be accessible or feasible for all families (Kilmer et al., 2012). For some homeless children, return to stable housing may be sufficient while others will require ongoing psychological support (Bassuk et al., 2010). Lack of coordination among service providers may pose barriers to access and increase the burden on families. Although a large body of research has addressed mental health disorders in homeless children, there is a lack of consensus on the causes of and appropriate services for psychopathology in this population. Little theoretical work has examined why mental health problems persist among homeless children despite extensive service provision across multiple domains. A comprehensive framework must address the underlying household- and family-level vulnerabilities that result from poverty, as well as the impact of instability and stress on child development.

Existing Theoretical Frameworks

Child Development and Well-Being

The theoretical basis for homelessness as a threat to child mental health relies upon considerations of the immediate physical environment, family functioning, and the role of instability and stress in the development of psychopathology.

A number of theoretical frameworks examine the impacts of environment on child development and well-being. The most prominent of these is Urie Bronfenbrenner's ***ecological perspective of the developing person***, which conceptualizes human development as occurring within multiple nested contexts: the *individual*, *microsystem*, *mesosystem*, *exosystem*, *macrosystem*, and *chronosystem* (Bronfenbrenner, 1979). The ecological model delineates multiple levels of environmental influence, from the immediate surroundings to the broader social and historical context. Development is posited as a function of the interaction between the individual and his or her environment (Bronfenbrenner, 1977). This theory has been updated a number of times to incorporate growing knowledge of genetics (Bronfenbrenner & Ceci, 1994) and more recent social trends (Bronfenbrenner & Morris, 1998). The latest reformulation postulates a progressive breakdown of social order and stability, creating what the authors call "chaotic systems" (Bronfenbrenner & Evans, 2000, p. 121). According to this theory, daily life has become marked by greater disorder across multiple settings including the family (e.g., the growth of divorce and single-parent families), schools (e.g., increases in school-based violence), and the workforce (e.g., more frequent job changes and job loss). Furthermore, this version of the model proposes that there has been an erosion of coordination and shared interest between the micro- and macro-level influences (e.g., less parent–child interaction due to the increase of parents in the workforce, lower voter participation rates, and increased disillusionment and cynicism among American adolescents). These "chaotic systems" are believed to disrupt the proximal processes that characterize children's daily lives and contribute to developmental outcomes (Bronfenbrenner & Evans, 2000; Bronfenbrenner & Morris, 1998).

The ***family stress model*** links economic hardship with child well-being through a series of parent- and caregiver-related mechanisms (Conger & Elder, 1994). Tests of this model have confirmed that factors such as parental stress and conflict, deteriorating parental physical and emotional well-being, and reductions in nurturing and engaged parenting practices mediate the relationship between hardship and child adjustment (Conger et al., 1992; Mistry, Lowe, Benner, & Chien, 2008; Warren & Font, 2015). According to this model, the pressures exerted on impoverished caregivers impact their abilities to provide stable, engaged parenting, with negative psychosocial implications for their children.

Recent work in child development has outlined an ***ecobiodevelopmental explanatory framework*** for understanding the effects of poverty (Shonkoff et al., 2012). This multidisciplinary model incorporates biology, ecology, and developmental sciences to explain how elements of a child's environment interact with his or her physiology to impact mental health. Adverse environmental factors, Shonkoff contends, trigger chemical stress reactions in the child. Chronically elevated hormones such as cortisol, norepinephrine, and adrenaline lead to cumulative stress on bodily organs—including the brain—that may alter cognition, emotional regulation, and gene expression (McEwen, 2013). Bronfenbrenner's ecological perspective considers biological factors in the *individual* level of influence, but does not attempt to explain these within-person processes. Similarly, Conger's model hypothesizes the influence of stress but emphasizes external, interpersonal contributors. Drawing upon the insights of Bronfenbrenner and Conger, the ecobiodevelopmental framework elucidates the physiological

mechanisms—namely, stress reactions—by which adverse household conditions negatively impact child development and mental health.

Mental Health Service Use

Little theoretical work has examined mental health service use among homeless families. Andersen's ***behavioral model of health service use*** emphasizes the complexity of factors—including predisposing factors, enabling resources, and need—that determine whether an individual will utilize services (Andersen, 1968). This framework was adapted as the ***behavioral model for vulnerable populations*** to address health service utilization among homeless adults, demonstrating they will obtain certain health care services if the need and perceived importance is sufficiently great (Gelberg, Andersen, & Leake, 2000). Gelberg and colleagues found homeless adults in transitional housing, shelters, or on the streets were equally likely to access health services, and mentally ill homeless individuals were no less likely than other homeless individuals to access health services. Nonetheless, this model has not been applied to homeless children and families' mental health services utilization patterns.

A New Model of Mental Health for Homeless Children

Addressing risk for mental health problems in homeless children requires insights from the fields of child development, psychiatry, mental health services, and social and economic development. It is currently unknown whether the poor mental health outcomes among homeless children follow from the specific trauma of homelessness itself, the general adversity associated with poverty, or a constellation of risk factors that occur in the context of household vulnerability and instability. Failure to consider multiple types of stressors and stress reactions hinders adequate, efficient prevention and treatment of mental health disorders in this population.

The theoretical model applied here emphasizes the impact of instability, disruption, and stress on child development in homeless families (Fig. 1). This theory posits that chronic environmental chaos erodes poor families' abilities to withstand household shocks and avoid falling into homelessness. The instability underlying these processes is compounded by the disruption of supports that accompany residential mobility. These repeated upheavals constitute threats to child mental health associated with homelessness above and beyond poverty. The major constructs and theoretical logic of this proposed model are detailed below.

Child Mental Health Problems

This model is primarily concerned with explaining *child mental health problems*, including emotional and behavioral disorders, as consequences of household and environmental stressors. A number of measures exist to assess disorder in children. The Child Behavior Checklist (CBCL; Achenbach, 1991), for example, is a common scale to assess internalizing (e.g., anxious, depressive) and externalizing (e.g., aggressive, hyperactive) behaviors in children age 2–18 years. The CBCL has been used frequently among samples of unstably housed, homeless, and impoverished children (Coley et al., 2014; Masten et al., 1993; Park et al., 2015). Similarly, the Rutter Children's Behavior Questionnaire (Rutter, Tizard, & Whitmore, 1970) has been used in a variety of samples to assess emotional and behavioral symptoms that indicate psychiatric disorder in children (Evans et al., 2005; Fombonne, 1989).

Household Stressors

This construct encompasses two sub-constructs that threaten family and child stability—*environmental chaos* and *homeless episode*. The first refers to a living situation that falls short of literal homelessness, yet is nonetheless characterized by hardship and insecurity. The present model relies upon common definitions of family instability and chaos for this sub-construct such as overcrowding, poor physical quality housing, family structure changes, and family or neighborhood violence (Coley et al., 2015; Evans et al., 2005; Park et al., 2011). Families experiencing environmental chaos face elevated risk for falling into homelessness, with the trigger often some *household shock*. These shocks, or crises that strain household and family resources, may comprise job losses, breakups or divorces, arrests, violence, or health issues. When a household shock interacts with an already precarious living situation, the family faces greater likelihood of falling into homelessness (Curtis et al., 2013; Mendoza, 2009; O'Flaherty, 2009). Thus, the second sub-construct of housing conditions is a potential progression from housing instability: a *homeless episode*. Definitions of homelessness vary in the vast existing literature, but typically involve at least one night in a homeless shelter, on the streets, in an abandoned building, in a vehicle or some other place not meant for human habitation, or otherwise lacking a fixed, nighttime residence (Grant et al., 2013; Homeless Emergency Assistance and Rapid Transition to Housing Act, 2009). The present model considers a homeless episode closely linked to but distinct from general environmental chaos because it may expose families to unique stressors such as lack of privacy,

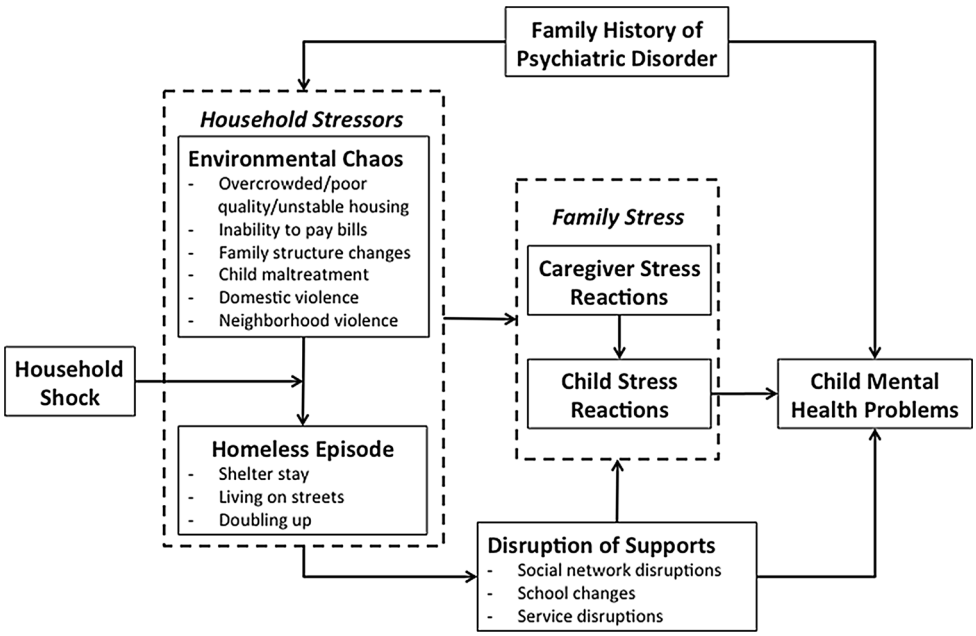

Fig. 1 Theoretical model of psychosocial problems among homeless children

disrupted family routines, and inadequate or unsafe shelter conditions (Anooshian, 2005; Mayberry et al., 2014).

Family Stress

The link between adverse household conditions—ranging from chaos to literal homelessness—and harmful stress reactions is well established (Aber et al., 1997; Coley et al., 2015; Evans & Kim, 2013). Insights from Bronfenbrenner's ecological models and Conger's family stress model propose these relationships, which have been borne out through empirical findings. Thus, this model considers *child stress reactions* driven by chaotic conditions both directly (McLaughlin et al., 2015; G. E. Miller & Chen, 2013) and through *caregiver stress reactions* (Huang, Costeines, Kaufman, & Ayala, 2014). Child responses to stress can be assessed physiologically, through cortisol levels (Evans & Kim, 2007) or inflammatory responses (Danese et al., 2011; G. E. Miller & Chen, 2013), as well as through assessments of sustained attention, self-regulation, or coping skills (McCoy & Raver, 2014). A number of indices likewise assess caregiver responses to stress, such as the Parenting Stress Index (Abidin, 1990). As posited by Shonkoff's ecobiodevelopmental framework, these stress reactions contribute to risk for c*hild mental health problems* (Evans & English, 2013; Sheidow, Henry, Tolan, & Strachan, 2014; Shonkoff et al., 2012). The model also considers genetic predisposition to mental health disorders indicated by *family history of psychiatric disorders*, which independently contributes to risk for environmental chaos and increases vulnerability to child emotional and behavioral disorders (Dougherty et al., 2013).

Disruption of Supports

The proposed model also includes a unique mechanism by which adverse household conditions contribute to child mental health disorders through *disruption* of both formal and informal supports. This disruption is an overlooked aspect of homelessness that may contribute to child emotional and behavioral problems in unexplored ways. Changes in available social supports, schools, medical or mental health care providers, and other service providers constitute significant upheavals for families. In the existing service delivery model, services are provided for discrete purposes by separate agencies. For example, homeless shelters tend to supplant all outside services during the homeless episode; as a result children, may lose contact with needed specialty mental health care. Measurement of service disruption may involve use of administrative data documenting dates of service use in combination with case notes indicating readiness for termination, interviews with service providers, and/or interviews with families. Future research may also consider disruption of other forms of formal supports (e.g., school changes due to residential mobility) as well as disruption of informal supports (e.g., moves away from supportive family members or neighbors). These disruptions, both directly and mediated by stress, may present unexamined threats to child mental health.

The lives of poor families with children are characterized by everyday chaos and instability. Much of this instability affects children's everyday, immediate surroundings: overcrowded living conditions when adequate space is unavailable, inconsistent electricity and other

utilities when monthly payments are unaffordable, and greater exposure to violence in both the home and neighborhood (Evans et al., 2005). This context predisposes families to homelessness by heightening their vulnerability to shocks that may precipitate a homeless episode (Curtis et al., 2013; Mendoza, 2009). A homeless episode—an extreme form of mobility—disrupts connections to services and supports. This may impact child mental health through stress as well as through lack of adequate services and supports for existing mental health problems. Concurrently, household stressors—including homelessness—contribute to adverse caregiver and child stress reactions that have negative physiological implications for child well-being (Evans & Kim, 2007; Shonkoff et al., 2012).

New Directions in Research

While the detrimental impacts of poverty and environmental chaos on children are well established, little empirical work has investigated the specific pathways leading to mental health problems among homeless children specifically. This paper proposes that environmental chaos is compounded for those children who experience a homeless episode, and that the disruption of needed mental health services constitutes an independent threat to healthy development. A research agenda proposed by this theoretical model is proposed below:

(1) *Examine the service use patterns of homeless children before, during, and after a homeless episode.* The patterns of children's service use both in and out of homeless shelters are not currently known. High rates of service use have been observed, but research has been cross-sectional in nature and has not elucidated dynamics of utilization and disruption over time (Park et al., 2011). This task should determine the extent to which homeless children experience disruptions in services upon shelter entry and exit.

(2) *Identify barriers to continuity of care among homeless children*. This task should uncover factors that lead to service disruptions. Potential barriers include both household-level logistical challenges such as lack of transportation as well as systemic service delivery inefficiencies such as lack of coordination among service systems and lack of follow-up.

(3) *Determine the impact of service disruption on child mental health outcomes*. Finally, this research agenda must address the consequences of our current service delivery model for child well-being. The theoretical model proposed here hypothesizes that service disruptions associated with shelter entry and exit constitute an independent threat to child development by compounding instability in homeless children's lives. The question of whether these disruptions predict worse mental health outcomes must be addressed.

Conclusion

The model proposed in this paper addresses an understudied vulnerable population. Homeless children and families are costly and logistically challenging to serve due to the overwhelming chaos of their everyday lives, but the extent to which current service delivery practices mitigate or exacerbate this chaos is unknown. The proposed theoretical model draws upon existing frameworks of child development, mental health, and service delivery to explain mental health disorders in homeless children as caused by chronic environmental chaos and instability; service delivery disruptions are an unexamined element of instability that may constitute an independent risk factor for mental health disorder.

Pursuing the research agenda outlined above will enable policymakers and practitioners to redesign the current service delivery model for families experiencing extreme environmental instability and facing elevated risk for psychiatric disease. Healthy child development depends upon stability and routines, which are continually threatened for those in very poor and unstably housed families. Service systems must be restructured to promote continuity of care, coordination among providers, and family stabilization to mitigate the chaos faced by homeless children.

Acknowledgments The project described was supported by Grant Number T32MH019960 from the National Institute of Mental Health.

Compliance with Ethical Standards

Conflict of Interest The author declares that she has no conflict of interest.

Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.

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