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Homeless Young Adults and Behavioral Health

An Overview

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Young adults (ages 18-24) are especially vulnerable to homelessness in the United States, and those experiencing homelessness exhibit high prevalence for many kinds of abuse and negative health outcomes. This article reviews common behavioral health issues facing homeless youth and assesses collective wisdom on effective treatments and services for this vulnerable population. On the whole, the research remains focused on individual-level risk and protective factors and service use patterns and preferences, which detracts from the structural issues that have shaped these individuals' experiences in the first place and are key to resolving them.

Keywords: *homeless youth; behavioral health; risk; resilience*

Young adults ages 18 to 24 years old are especially vulnerable to homelessness in the United States: Estimates of those experiencing an episode of homelessness each year have ranged from 750,000 to 2 million, and the number is believed to be on the rise (Ensign & Gittelsohn, 1998; Ringwalt, Greene, Robertson, & McPheeters, 1998). Young adults are less likely than older adults to have resources

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in place to prevent homelessness or to cope should it occur. For example, they are more likely to have low-paying jobs with few benefits and are less likely to have health insurance, substantial savings, or experience with housing matters, legal rights, or community resources than more experienced adults. Compounding this difficulty is that some supportive services, such as health care and education, are generally unavailable to individuals once they reach 18 or 21 years unless they have dependent children. Many young adults in the United States continue to be supported by their parents well into their mid-20s. Indeed, in 2004, more than half of the 27.8 million young people in the United States ages 18 to 24 were living with their parents (Clifford, 2005). However, without a family with the means or desire to support them, increasing numbers of young adults are doubling up with friends or finding places to sleep in shelters or on the street. Many of these homeless young adults are also raising children of their own: Young adults compose 13% of the adult homeless population but 26% of homeless families (Burt et al., 1999).

Some subgroups are especially overrepresented among the homeless young adult population, including immigrants, racial and sexual minorities, and victims of physical or sexual abuse (Durham, 2003). Those "aging out" of the foster care system are especially at risk: One study found nearly one quarter of emancipated youth had been homeless 2 to 4 years after leaving foster care (Annie E. Casey Foundation, 2004); another estimated 45% would be emancipated directly to homelessness on the streets or have such unstable plans they would end up homeless in a very short time (Shelter Partnership, 1997).

Exacerbating the numerous structural barriers that stand in the way of exiting homelessness are some of the illegal or risky behaviors in which youth may engage to meet basic needs—behaviors that can incur stigmatization, hinder much-needed social support, and create mistrust. Certainly in some cases, illegal or risky behaviors may precede and even cause the entry into homelessness; this review does not address which comes first, a largely unresearched and debatable question, but rather focuses on the experiences young adults have once they become homeless and the extent to which their behaviors inhibit their exit from the street. Also of interest here are those resiliencies and coping strategies that enable homeless young adults' survival during their homeless episode or episodes.

Unfortunately, the research on this subgroup predominantly poses questions with an individual focus, analyzing risk and protective factors associated with certain diseases, service use patterns and preferences, and diagnostic profiles (Rosenthal & Rotheram-Borus, 2005). Although clearly valuable for intervention and program design, these foci tend to draw attention away from the larger structural issues that have shaped homeless young adults' experiences in the first place and are key to resolving them.

This article describes some methodological issues affecting research on homeless young adults and addresses overarching health services use and access barriers they face, before summarizing the most common behavioral health issues homeless

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young adults encounter, notably substance use, mental illness, and sexual activities. Interspersed throughout is information about effective treatments and interventions with the homeless young adult population. The primary source for this overview is peer-reviewed published research from the United States and Canada, but it is both shaped and enhanced by insights from health care providers who specialize in work with this population.

Methodological Barriers to Research With Homeless Youth

Conducting research with homeless youth poses myriad methodological complications associated with studying both adolescents and homeless persons, including confidentiality and consent issues, lack of trust, and transience. These issues complicate recruiting study participants, obtaining consent, and following participants over time. Consequently, research with and about homeless young adults is largely descriptive and cross-sectional, biased toward those actively using services, primarily in metropolitan areas, and heavily reliant on self-reporting.[1]

Definitional issues mar comparisons across studies. Age categories, for example, appear to be an arbitrary moving target not just for research but also for policies and programs (Bazelon Center for Mental Health Law, 2005). Most study samples include broad ranges of ages, such as 13 to 23 or 14 to 25; few focus specifically on those ages 18 to 24. Identifiers are inconsistent and problematic: “late adolescence,” “young adult,” “transition-aged youth,” and “street youth,” to name just a few (Panter-Brick, 2002; Rosenthal & Rotheram-Borus, 2005). Homelessness typically encompasses only those actively using services such as shelters and health clinics; although some studies attempt to include those living on the street, almost none addresses the “hidden” homeless population doubling up with friends or living in substandard housing. Perspectives on health and health status also vary, though the general bias is toward a “disease-based” outlook, with health defined as the absence of disease (Ensign, 1998). These limitations have produced a body of research with a relatively narrow focus not only on the population being observed but on individual rather than structural understandings of the causes and consequences of homelessness.

Health Services: Use and Access Issues

Researchers have concluded that homeless youth are at higher risk for negative health outcomes than those who are housed, and there is consensus about overarching structural barriers, such as lack of health insurance or regular primary care, absence of stable housing, and the stressful and dangerous environment of the street and shelters, that help to account for those outcomes (Busen & Beech 1997; Klein et al., 2000; Nyamathi et al., 2005; Rew, 2003; Ringwalt et al., 1998).[2] Young adults

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in the United States are more likely than any other age group to be uninsured, a pattern that has persisted and even increased over the past decade (Collins, Schoen, Tenney, Doty, & Ho, 2004); nearly half (45%) of young adults ages 19 to 23 years were uninsured for at least some time during 2002.

Only relatively recently has a more nuanced understanding of health service access been explored from the perspective of youth themselves—research that poses questions about motivations, attitudes, preferences, and health-seeking behaviors within their context of limited resources. Researchers are beginning to develop a more sophisticated understanding of issues facing this nonhomogeneous group and placing greater emphasis on resilience factors. This shift may be an indication of what Panter-Brick (2002) calls a "sea change" in international writing about street youth: "Research has shifted emphasis from portrayals of vulnerability and dependency to a discussion of . . . coping strategies in the face of adversity" (p. 156). Nevertheless, as evidenced by this review, the shift is happening slowly.

Some insight into access barriers can be derived from an understanding of young adults' pathways to the street and the special vulnerabilities and resiliencies associated with them. Some of the more common artificial and overlapping categorizations of these pathways include throwaway youth who have been discarded from their caregiver's home; runaways who have left voluntarily, often as victims of neglect or abuse; youth residing in a shelter; youth who primarily live on the streets; and systems youth who are wards of the state (Aviles & Helfrich, 2004; Booth, Zhang, & Kwiatkowski, 1999; Rosenthal & Roterham-Borus, 2005). It is not surprising that several studies have found that youth on the streets and systems youth exhibit riskier health behaviors, poorer health status, and higher use of emergency rooms for health care compared with youth living in shelters or homes (Ensign & Bell, 2004; Ensign & Santelli, 1997; Klein et al., 2000).

Generally, shelters and drop-in centers tend to "act as gateways to other services and offer intervention potential for these hard-to-reach youth" (DeRosa et al., 1999, abstract), and some work has been done to illustrate the different kinds of service sites that reach various subpopulations of youth (Wexler, 1997; Woods et al., 2002). One study of a free clinic in Seattle, Washington, for example, has shown that availability of complementary and alternative medicine is an effective draw for homeless youth ages 14 to 21 into health services (Breuner, Barry, & Kemper, 1998). Given that use of shelter and outreach services among street youth is quite low overall (Booth et al., 1999), and that organizational differences provide little predictive value in determining outcomes, the ideal scenario is most likely a comprehensive network of care that offers a continuum of services and a variety of entry routes and types of care sites to connect underserved youth to the care they need (Woods et al., 2002).

Many access barriers evolve from an adult-oriented safety net, which is not always appropriate or attuned to the needs and preferences of adolescents and young adults, especially those recovering from abuse. In addition to a lack of role models and help to become aware of and navigate complex systems such as health care,

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young adults often find facilities designed for adults intimidating and uncomfortable, and providers to be untrustworthy or judgmental (Barry, Ensign, & Lipke, 2002; Ensign & Bell, 2004; Ensign & Panke, 2002; Geber, 1997; Taylor, Lydon, Bougie, & Johannsen, 2004). Consequently, one of the recurring suggestions for improving access is to provide age-targeted services and/or services separate from adults (Clatts, Davis, Sotheran, & Atillasoy, 1998; DeRosa et al., 1999; Ensign, 2004; Nyamathi et al., 2005; Rew, Chambers, & Kulkarnia, 2002). A group of clinicians working with homeless young adults recently compiled the only known practical guide to service delivery adaptations for this subpopulation (Ammerman et al., 2004). They suggest that awareness and acknowledgement of the limitations of an adult-focused safety net is a critical first step in creating appropriate services for homeless youth and that resources should specifically aid in the transition from childhood to adulthood. Although the guide offers examples of strategies for health providers within the clinic setting, such as addressing youth by their street names, offering flexible clinic hours, and providing clear information about rights and responsibilities regarding medical records and health visits, it also makes clear that societal supports such as health insurance would provide the most benefit.

As noted earlier, young adults lose access to many support services once they reach a certain age, and prevention services for homeless youth are often focused on younger segments of the population; older youth have the least contact with supportive services. Transition services enabling smooth progression to adult services are rare, so youth are often pushed into adult services ill-prepared (Miles, Edwards, & Clapson, 2004). Many factors common to homeless young adults can delay adolescent development, such as substance use, mental health disorders and chronic illness, and stressors such as physical and sexual abuse, or neglect and exposure to violence. Because the fit between chronological age and developmental maturity can be quite poor, practitioners working with this population believe the most effective prevention strategies and health care interventions should be based on developmental stage rather than chronological age (Ammerman et al., 2004).

Numerous studies have sought to understand homeless youth's self-care and health-seeking behaviors. Again, behaviors tend to vary by age and gender, with older youth and males tending to exhibit riskier behaviors and more negative health outcomes (Ensign & Bell, 2004; Ensign & Gittelsohn, 1998; Taylor-Seehafer, Rew, & Sternglanz, 2005). Some themes emerge, however, such as the finding that trusted adults, often family members, remain an important source of health advice (Ensign & Gittelsohn, 1998; Ensign & Panke, 2002). Despite the acknowledged link between trust and service access, little remains known about the trust-building process. One small ethnographic study of sheltered youth recently explored this issue and created a model of trust formation, finding that youth were most apt to find professionals trustworthy if they displayed honesty, respected without judgment, and maintained youth's privacy (Ulager, Tomescu, Auerswald, & Ginsburg, 2005). The role of social supports and "connectedness" with others is key not only to awareness of health

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needs and better health status but motivation to engage in self-care behaviors and overall resilience to harsh circumstances; isolation only compounds the effects of structural barriers (Bearsley & Cummins, 1999; Rew & Horner, 2003; Rew, Taylor-Seehafer, Thomas, & Yockey, 2001; Taylor et al., 2004; Taylor-Seehafer et al., 2005; Unger et al., 1998). And it should not be assumed that unsafe or risky behaviors, such as those discussed in greater detail below, negate young adults' interest in knowing more about their health and how to protect it (Lifson & Halcon, 2001).

Abuse at Home and on the Street

Homeless adolescents and young adults have, on the whole, much more experience with physical and/or sexual abuse and parental neglect or rejection than their housed peers. Specific prevalence rates vary according to dissimilarities in study samples, but are consistently high. For example, in a Seattle study of 328 homeless and runaway youth ages 13 to 21 years on the streets and in shelters, 82% reported physical abuse, 43% family neglect, and 26% sexual abuse (Tyler, Cauce, & Whitbeck, 2004). In a convenience sample of 414 homeless young people in Austin, Texas, ages 16 to 20, over half reported history of sexual abuse (Rew, Fouladi, & Yockey, 2002). A study of 775 street youth 12 to 19 years of age from Denver, New York City, and San Francisco found 70% of females and 24% of males reported sexual abuse and 35% of both genders reported physical abuse (Molnar, Shade, Kral, Booth, & Watters, 1998); and a Minnesota street survey found nearly half (46%) had been physically or sexually mistreated (Wilder Research, 2005; see also Busen & Beech, 1997; Noell & Ochs, 2001; Rew, Taylor-Seehafer, & Fitzgerald, 2001).

Many youth cite these experiences as reasons for leaving home (Rew, Taylor-Seehafer, Thomas, et al., 2001), but the experiences also lay the foundation for risky behaviors and inform their ability to cope with harsh and violent situations on the street and to avoid further victimization (Molnar et al., 1998; Tyler et al., 2004; Unger, Kipke, Simon, Montgomery, & Johnson, 1997). Few studies have systematically documented prevalence of physical and sexual abuse experienced as a result of becoming homeless, but all agree that such abuse is not uncommon, particularly for females (Bourgois, Prince, & Moss, 2004; Cauce et al., 2000; Ensign, 2000; Ensign & Santelli, 1997). In a sad testament to the stubborn perpetuation of abuse, Haley, Roy, Leclerc, Boudreau, and Boivin (2004a) compared two socioeconomic status–matched groups of female street youth ages 14 to 19 and found that those who had ever been pregnant were far more likely to have experienced sexual abuse, and to have had more than one abuser, than those who had never been pregnant. The true impact of relational violence remains largely unknown given the dearth of longitudinal studies, and the effects of exposure to other types of violence also remains unexplored (Voisin, 2005).

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Risky Sexual Behaviors

Homeless youth are more apt than their housed peers to be sexually active and to have started having sexual intercourse 2 to 3 years earlier than other adolescents—generally at about ages 12 or 13 (Ensign & Santelli, 1997; Rew, Fouladi, et al., 2002; Walters, 1999). Not atypical is a study of 202 homeless and runaway youth in San Francisco that found 91% were sexually active (Goodman & Berecochea, 1994; see also Booth et al., 1999). Homeless adolescents and young adults frequently report high-risk sexual behaviors such as having multiple sex partners and unprotected sex (Anderson et al., 1996; Booth et al., 1999; Ensign & Santelli, 1997). Prevalence varies, again, by subgroup: Older youth, males, youth living on the streets, non-Whites, and injection drug users all tend to take more risks (Anderson et al., 1996; Fitzpatrick, La Gory, & Ritchey, 2003; Rew, Fouladi, et al., 2002).

Early and recent exposure to physical and sexual violence, the need to obtain income, and drug and resource sharing in the "moral economy of street addicts" (Bourgois et al., 2004, abstract) leads many to exchange sex for resources, though again, systematic studies of the prevalence of prostitution or "survival sex" are rare. Homeless youth are also more likely to experience victimization on the streets as a result of high-risk lifestyles (Simons & Whitbeck, 1991). A Montreal study of 542 male street youth ages 14 to 23 found 27.7% reported engaging in survival sex (Haley, Roy, Leclerc, Boudreau, & Boivin, 2004b). Ensign (2000) found similar results in a smaller study on females in this age range. A review of mostly descriptive studies of survival sex prevalence found a range from 1% among homeless youth in Cleveland to 43% in Los Angeles; this compares with just 1% of a national sample of domiciled adolescents who reported exchanging sex for resources (Booth et al., 1999).

Those involved in risky sexual behaviors and/or in prostitution are at much greater risk for drug abuse, suicide and depression, and health problems (Anderson et al., 1996; Yates, Mackenzie, Pennbridge, & Swofford, 1991). Following is a brief review of three especially pervasive diseases, sexually transmitted infections (STIs), hepatitis, and HIV/AIDS, and specific interventions created to manage them.

Adolescents (15- to 24-year-olds) in the United States are at higher risk of acquiring STIs than older adults due to lack of appropriate prevention services and lack of insurance. Though the population represents only 25% of the ever sexually active population, they acquire nearly 50% of all new STIs (Weinstock, Berman, & Cates, 2004). This situation is compounded in homeless young people, especially for females (Noell & Ochs, 2001), but on the whole hovers in the range of about 17% to 27% (Goodman & Berecochea, 1994; Noell et al., 2001; Richardson et al., 2003). One study of new admissions to a residential care facility for homeless and runaway youth found 60% of the 106 residents had an STI on admission (Steele & O'Keefe, 2001). Rates of infection among homeless youth are 3 to 10 times higher than rates than among their housed counterparts.

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Studies of effective interventions specific to homeless young adults and STI transmission are sparse. One study illustrated decrease in new STIs among homeless and runaway youth in a residential care facility after therapy and counseling (Steele & O'Keefe, 2001); another showed homeless women accessing a street clinic had a preference for self-collected vaginal swabs as opposed to physician sampling (Richardson et al., 2003). Rew, Chambers, and colleagues (2002) demonstrated that homeless adolescents had knowledge about symptoms, transmission, prevention, and treatment of STI but lacked understanding of the longer term sequelae of untreated STI; those youth recommended street-outreach interventions be brief, gender specific, accessible, and focused on the unique vulnerabilities and strengths of homeless youth (Rew, Chambers, et al., 2002; see also Rew, Fouladi, et al., 2002).

Homeless adolescents and young adults, particularly males and gay, lesbian, bisexual, transgender, and questioning (GLBTQ) youth living on the streets, are also at high risk for HIV/AIDS (Busen & Beech, 1997; Clatts et al., 1998; Dematteo et al., 1999; Haley et al., 2004b; Moon et al., 2000). A review of earlier studies reported "conservative" estimates of HIV seropositivity among runaway and homeless youth at 5%, ranging to a high of 17% among street youth in San Francisco—rates 2 to 10 times higher than among other adolescent populations in the United States (Allen et al., 1994; Booth et al., 1999; Rew, Fouladi, et al., 2002; Walters, 1999). In the mid-1990s, the Society for Adolescent Medicine expressed grave concern over the danger of HIV infection spreading in this subpopulation (Dangelo, Brown, English, Hein, & Remafadi, 1994). More recent North American studies have shown some stability in prevalence rates (Noell et al., 2001; Roy et al., 2003; Tsu, Burm, Gilhooly, & Sells, 2002). Nevertheless, risk factors more commonly seen in homeless youth, such as unprotected sex, intravenous drug use, and prostitution, are consistently associated with HIV infection.

Examination of HIV risk reduction interventions specifically targeted to homeless or runaway youth and young adults, despite this subgroup's consistently high risk, is relatively recent and fragmented. Many of the barriers associated with developing prevention strategies have been well documented, such as their high level of mobility (Dematteo et al., 1999). More important, however, is evidence that despite the effectiveness of youth-specific, developmentally appropriate interventions aimed at increasing HIV knowledge, youth are poorly accessing services (Goodman et al., 1999; Tsu et al., 2002), doubting the information obtained there (Sobo, Zimet, Zimmerman, & Cecil, 1997), and/or maintaining high-risk behaviors anyway (Booth et al., 1999). One author has gone as far as to suggest that homeless youth may perceive testing HIV-positive as advantageous for accessing basics such as food and shelter (Walters, 1999).

A handful of cities have developed impressive multidisciplinary continua of services aimed at high-risk youth (including homeless youth), all asserting the importance of retaining diverse strategies and maintaining flexibility in tailoring services to individual needs (Goulart & Madover, 1991; Tenner, Trevithick, Wagner, & Burch,

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1998; Woods et al., 1998). Others have also highlighted the need for innovative HIV prevention and education programs that address the special needs of this population (Kipke, Montgomery, Simon, & Iverson, 1997). On the whole, however, many critical services for HIV-positive youth remain scarce (Lin, Melchiono, Huba, & Woods, 1998).

Sexual Minorities

Quality statistics on the proportion of the general youth population identifying with various sexual minority categories remain elusive, though most surveys find well under 10% of individuals identify themselves as GLBTQ. It is clear, however, that sexual minorities are overrepresented among homeless youth; precisely to what extent we do not know. For example, one convenience sample of 414 homeless youth ages 16 to 20 had 35% report homosexual or bisexual orientation; another study of 532 youths had 44.9% of females self-identify as lesbian or bisexual but just 13.9% of males saying they were gay or bisexual; and yet another study of 929 street youth in New York City reported 11% self-described gay or lesbian and 24% bisexual (Noell & Ochs, 2001; Rew, Taylor-Seehafer, Thomas, et al., 2001; Rew, Fouladi, et al., 2002).

Homeless youth who self-identify as GLBTQ exhibit greater risk and negative outcomes than those who are heterosexual. For example, this subgroup is more likely to have early onset of sexual experience, involvement in prostitution or survival sex, multiple sex partners, and other sexually risky behaviors (Clatts, Goldsamt, Yi, & Gwadz, 2005; Cochran, Stewart, Ginzler, & Cauce, 2002; Gwadz, Clatts, Leonard, & Goldsamt, 2004; Moon et al., 2000; Taylor-Seehafer et al., 2005; Whitbeck et al., 2004). They are also at greater risk for substance use and abuse (Clatts et al., 2005; Cochran et al., 2002; Noell & Ochs, 2001; Moon et al., 2000) and for experiencing some mental health problems (Cochran et al., 2002; Noell & Ochs, 2001; Whitbeck et al., 2004). What is not clear, however, is whether and to what extent the risks preceded their homelessness. One author found little drug use prior to becoming homeless among his sample of young males having sex with males and concluded that "the data illustrate the complexity of factors that must be accounted for, both in advancing our epidemiological understanding of the complexity of homelessness and its relationship to the onset of drug and sexual risk among high-risk populations" (Clatts et al., 2005, abstract).

Substance Use

Several small- and large-scale studies have found 70% to 97% of homeless youth abuse alcohol, illicit drugs, or both and noted that risk increases with age

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and duration of homelessness (Baer, Ginzler, & Peterson, 2003; Gleghorn, Marx, Vittinghoff, & Katz, 1998; Green, Ennett, & Ringwalt, 1997; Kipke et al., 1997; Kral, Molnar, Booth, & Watters, 1997). Identifying a specific drug of choice among this population is not consistent among studies. For example, in a study by Van Leeuwen et al. (2004), 69% of the sample used alcohol, 75% used marijuana, and 30% used hallucinogens most commonly, whereas the population studied by Gleghorn et al. (1998) commonly used LSD, marijuana, hallucinogens, alcohol, nitrous oxide, cocaine, heroin, speed, and speedballs. Because different drugs have different physiological effects, use of a particular drug or combination of drugs corresponds to different patterns of use, dependence, associated risk behaviors, and response to treatment (Cunningham, Thielemeir, Stalcup, & Stalcup, 1996; Darke, Swift, Hall, & Ross, 1994; Klee, 1993). Regional variations also occur, though our understanding of their significance is limited (Kral et al., 1997; Van Leeuwen et al., 2004).

Specific drug use patterns are related to other risk factors but are difficult to separate. For example, Gleghorn et al. (1998) found that homeless youth who used any heroin, methamphetamine, or cocaine exhibited more sexual risks than nonusers, whereas primary stimulant and combined heroin and stimulant users showed greatest sexual risk. Although studies suggest homeless street youth exhibit more risk-taking behaviors than shelter-based youth (Ensign & Santelli, 1997), McCaskill, Toro, and Wolfe (1998) found no differences in drug abuse between sheltered homeless and housed adolescents.

Engaging youth in any type of drug and alcohol treatment program is challenging. Youth typically do not seek treatment on their own and are known to leave treatment early (Busen & Beech, 1997). Comprehensive services are most effective. Steele and O'Keefe (2001) found that an organized program of interventions reduced drug dependence among homeless and runaway teens in residential care from 41% to 3%. Taylor-Seehafer (2004) suggested that essential substance abuse services should include harm reduction approaches and multidisciplinary integrated services including peer education, life and job skills training, and supportive and transitional housing (see also Forst, 1994; Ginzler, Cochran, Domenech-Rodriguez, Cauce, & Whitbeck, 2003).

Mental Health and Dual or Multiple Diagnosis

Mental health problems are not uncommon among homeless youth and frequently occur in combination with one or more substance use disorders. In a recent study of 226 "treatment-engaged substance abusing" 13- to 17-year-olds at a runaway shelter, for example, 60% met criteria for dual or multiple diagnoses, with more than half (56%) having more than one substance use diagnosis (Slesnick & Prestopnik, 2005a). Yet studies that have carefully matched homeless adolescents with their

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housed peers on significant demographic variables have begun to expose similarities in certain mental health and substance use diagnoses between homeless youth and youth living in poverty on the verge of homelessness. One such study found homeless adolescents had more disruptive behavior disorders and alcohol dependence but no significant differences on drug abuse or affective or psychotic disorders (McCaskill et al., 1998); another found both groups with high rates of mental disorders (approximately a third of the combined group) with no significant difference between them (Buckner & Bassuk, 1997). Within the nonhomogeneous category of homeless young adults, a great deal of variation can be identified along gender lines (Cauce et al., 2000), duration of life on the streets, and other attributes.[3]

On the whole, studies describe an overwhelming number of issues with which these young people must cope. Dissociative symptoms (Tyler et al., 2004), conduct disorder (Booth & Zhang, 1997), and disengaging coping styles (Votta & Manion, 2003) complicate the pathway to mental health. High rates of depression, suicidal ideation, and suicide attempts are especially well documented (Desai, Liu-Mares, Dausey, & Rosenheck, 2003; Molnar et al., 1998; Unger et al., 1997; Votta & Manion, 2003, 2004; Yoder, Hoyt, & Whitbeck, 1998), as well as self-mutilation and self injurious behaviors (Tyler, Whitbeck, Hoyt, & Johnson, 2003; Unger et al., 1997). One study of 775 street youth ages 12 to 19 years from Denver, New York City, and San Francisco reported 48% of females and 27% of males had attempted suicide at least once (Molnar et al., 1998); a study of 297 homeless and runaway youth from four midwestern states noted 53.9% had some level of suicidal ideation and 26.3% had attempted suicide during the year prior to the interview (Yoder et al., 1998).

Rigorous assessments of mental health interventions for homeless youth are rare and fragmented. In fact, a recent systematic review of health-related interventions for homeless groups found just two "fair-quality studies" focused on homeless youth: One of these randomized runaway youth into either standard case management or intensive case management and found no significant differences in outcomes—though all showed overall improved mental health and social adjustment (Cauce et al., 1994). Less rigorous but promising studies have explored nontraditional programs with homeless youth, such as an enhancement of mental health service delivery in a shelter setting that decreased unplanned discharges (Grigsby, 1992), ecologically based family therapy that reduced overall substance abuse (Slesnick & Prestopnik, 2005b), and innovative housing programs for youth aging out of child welfare that combine shelter and treatment services, are improving outcomes and saving costs (Van Leeuwen, 2004).

Conclusion

Increasing numbers of young adults in the United States are homeless—doubling up with friends, living in shelters, or camping out on the streets and in public spaces.

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They become homeless in a number of ways, including escaping an abusive parent, being released from the foster care or corrections system after aging out at 18, or being kicked out of home by disapproving parents.

Research on and with these individuals has concluded that the experience of extreme poverty and homelessness increases the likelihood of participating in risky behaviors and, subsequently, of negative physical and mental health outcomes. The research is still largely concerned with point-in-time snapshots of those youth who are accessing services and visibly living on the streets, even though we know far more are hidden and avoiding services. And although researchers are increasingly interested in delineating experiences of subgroups of the heterogeneous group of homeless adolescents and young adults—especially those in sexual minority groups—they still tend to lump young people of different races and experiences into the same studies. That tendency can be problematic; for example, we know that African American youth are even less likely to use services than White youth, often citing racism as the reason (DosReis, Zito, Safer, & Soeken, 2001). They are also more apt to have been abused, to exhibit risky behaviors and worse outcomes, and to have spent time in foster care and in the correctional system. Few studies mention issues facing undocumented immigrants, though certainly the barriers they face are unique. Research combines youth ranging from early adolescence (12 to 13) to young adulthood (18 to 24) into one group, reflecting a flawed service system with the same tendency.

Recent qualitative research has improved our skills in listening to what homeless young adults have to say about their experiences and the kinds of services that would work for them, helping to shift the focus from risk and vulnerability to coping strategies and resilience. An important next step, though, is to do a better job of listening to the practitioners and other trusted adults who work closely with homeless young adults. We know one intervention that works is having stable, supportive, trusted adults in youth's lives, yet we are not asking those adults what they think works.

For many of these youth, homelessness is an episodic, not a chronic, experience. Certainly, homelessness is a damaging experience regardless of its duration, yet because our methodologies restrict us to taking snapshots rather than the long view of their careers, the implication is that a dichotomy exists between the literally homeless young adults and those on the verge of homelessness. The need for longitudinal and in-depth research documenting the horrors of life on the street remains, but the real urgency is elsewhere. The urgency is for research that informs interventions that work—interventions built on hearing both youth and the adults they trust—and that addresses the broader structural causes that lead to homelessness.

Homeless young adults remain invisible; we need to make them visible, not by enhancing the picture of their risky and unpleasant behaviors and traumatic experiences but by acknowledging and fixing the gaps in their safety nets. If they are to have a fighting chance of avoiding or escaping homelessness, they need access to resources such as education, workforce preparation training and living-wage jobs,

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housing or rental assistance, health insurance, age-appropriate mental health and substance abuse treatment, and transitional support services when discharged from foster care and juvenile justice systems. Individuals in this developmental stage of late adolescence are at a critical juncture. With supports such as these, they can live to their potential and grow into healthy, responsible adults contributing to society; without them they may face a future of dependency, marginalization, and potential long-term homelessness.

Notes

1. See McKenzie, Tulsky, Long, Chesney, and Moss (1999) for a review of methods for tracking and following up with marginalized populations. See also Robert, Pauze, and Fournier (2005); Walters (1999).

2. Beyond the scope of this article, but not insignificant, is a discussion of the role federal and state funding for programs for these individuals has in adding to the confusion and complexity prohibiting a comprehensive system of care. For a review, see Bazelon Center for Mental Health Law (2005). English, Morreale, and Larsen (2003) explore some of the funding barriers specific to youth accessing health insurance post foster care.

3. See Adlaf and Zdanowicz (1999) for a detailed cluster analysis.

References

Adlaf, E. M., & Zdanowicz, Y. M. (1999). A cluster-analytic study of substance problems and mental health among street youths. *American Journal of Drug and Alcohol Abuse*, *25*, 639-660.

Allen, D. M., Lehman, J. S., Green, T. A., Lindegren, M. L., Onarato, I. M., Forrester, W., et al. (1994). HIV infection among homeless adults and runaway youth, United States 1989-1992. *AIDS*, *8*, 1593-1598.

Ammerman, S. D., Ensign, J., Kirzner, R., Meininger, E. T., Tornabene, M., Warf, C. W., et al. (2004). *Homeless young adults ages 18-24: Examining service delivery adaptations.* Nashville, TN: National Health Care for the Homeless Council.

Anderson, J. E., Cheney, R., Clatts, M., Faruque, S., Kipke, M., Long, A., et al. (1996). HIV risk behavior, street outreach, and condom use in eight high-risk populations. *AIDS Education and Prevention*, *8*, 191-204.

Annie E. Casey Foundation. (2004). *Moving youth from risk to opportunity.* Available from http://www.aecf.org/kidscount/databook/essay.htm

Aviles, A., & Helfrich, C. (2004). Life skill service needs: Perspectives of homeless youth. *Journal of Youth and Adolescence*, *33*, 331-338.

Baer, J. S., Ginzler, J. A., & Peterson, P. L. (2003). *DSM-IV* alcohol and substance abuse and dependence in homeless youth. *Journal of Studies on Alcohol*, *64*, 5-14.

Barry, P., Ensign, J., & Lipke, S. (2002). Embracing street culture: Fitting health care into the lives of street youth. *Journal of Transcultural Nursing*, *13*, 145-152.

Bazelon Center for Mental Health Law. (2005, June). An analysis of federal programs funding services for transition-aged youth with serious mental health conditions. Paper presented at the *Consensus meeting on federal policy for transition-aged youth with serious mental health conditions*, Rockville, MD.

Bearsley, C., & Cummins, R. A. (1999). No place called home: Life quality and purpose of homeless youths. *Journal of Social Distress and the Homeless*, *8*, 207-226.

Booth, R. E., & Zhang, Y. M. (1997). Conduct disorder and HIV risk behaviors among runaway and homeless adolescents. *Drug and Alcohol Dependence*, *48*, 69-76.

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Booth, R. E., Zhang, Y. M., & Kwiatkowski, C. F. (1999). The challenge of changing drug and sex risk behaviors of runaway and homeless adolescents. *Child Abuse and Neglect*, *23*, 1295-1306.

Bourgois, P., Prince, B., & Moss, A. (2004). The everyday violence of hepatitis C among young women who inject drugs in San Francisco. *Human Organization*, *63*, 253-264.

Breuner, C. C., Barry, P. J., & Kemper, K. J. (1998). Alternative medicine use by homeless youth. *Archives of Pediatrics and Adolescent Medicine*, *152*, 1071-1075.

Buckner, J. C., & Bassuk, E. L. (1997). Mental disorders and service utilization among youths from homeless and low-income housed families. *Journal of the American Academy of Child and Adolescent Psychiatry*, *36*, 890-900.

Burt, M. R., Aron, L. Y., Douglas, T., Valente, J., Lee, E., & Iwen, B. (1999). *Homelessness: Programs and the people they serve. Summary report*. *Findings of the National Survey of Homeless Assistance Providers and Clients*. Washington, DC: Urban Institute.

Busen, N. H., & Beech, B. (1997). A collaborative model for community-based health care screening of homeless adolescents. *Journal of Professional Nursing*, *13*, 316-324.

Cauce, A. M., Morgan, C. J., Wagner, V., Moore, E., Sy, J., Wurzbacher, K., et al. (1994). Effectiveness of intensive case-management for homeless adolescents: Results of a 3-month follow-up. *Journal of Emotional and Behavioral Disorders*, *2*, 219-227.

Cauce, A. M., Paradise, M., Ginzler, J. A., Embry, L., Morgan, C. J., Lohr, Y., et al. (2000). The characteristics and mental health of homeless adolescents: Age and gender differences. *Journal of Emotional and Behavioral Disorders*, *8*, 230-239.

Clatts, M. C., Davis, W. R., Sotheran, J. L., & Atillasoy, A. (1998). Correlates and distribution of HIV risk behaviors among homeless youth in New York City: Implications for prevention and policy. *Child Welfare*, *77*, 195-207.

Clatts, M. C., Goldsamt, L., Yi, H., & Gwadz, M. V. (2005). Homelessness and drug abuse among young men who have sex with men in New York City: A preliminary epidemiological trajectory. *Journal of Adolescence*, *28*, 201-214.

Clifford, J. (2005). Parents' reactions vary to college grads "boomeranging" home. *San Diego Union Tribune*. Retrieved from http://www.signonsandiego.com/news/features/20050820-9999-lz1c20nest.html

Cochran, B. N., Stewart, A. J., Ginzler, J. A., & Cauce, A. M. (2002). Challenges faced by homeless sexual minorities: Comparison of gay, lesbian, bisexual, and transgender homeless adolescents with their heterosexual counterparts. *American Journal of Public Health*, *92*, 773-777.

Collins, S. R., Schoen, C., Tenney, K., Doty, M. M., & Ho, A. (2004). *Rite of passage? Why young adults become uninsured and how new policies can help. Report of the Commonwealth Fund Task Force on the Future of Health Insurance*. New York: Commonwealth Fund.

Cunningham, J. K., Thielemeir, M. A., Stalcup, S. A., & Stalcup, J. A. (1996). *Heroin/opioid-related admissions: trends and regional variation in California (1986-1995).* Irvine, CA: Public Statistics Institute.

Dangelo, L. J., Brown, R., English, A., Hein, K., & Remafedi, G. (1994). HIV infection and AIDS in adolescents–A position paper of the Society of Adolescent Medicine. *Journal of Adolescent Health*, *15*, 427-434.

Darke, S., Swift, W., Hall, W., & Ross, M. (1994). Predictors of injecting and infecting risk-taking behavior among methadone-maintenance clients. *Addiction*, *89*, 311-316.

Dematteo, D., Major, C., Block, B., Coates, R., Fearon, M., Goldberg, E., et al. (1999). Toronto street youth and HIV/AIDS: Prevalence, demographics, and risks. *Journal of Adolescent Health*, *25*, 358-366.

DeRosa, C. J., Montgomery, S. B., Kipke, M. D., Iverson, E., Ma, J. L., & Unger, J. B. (1999). Service utilization among homeless and runaway youth in Los Angeles, California: Rates and reasons. *Journal of Adolescent Health*, *24*, 449-458.

Desai, R. A., Liu-Mares, W., Dausey, D. J., & Rosenheck, R. A. (2003). Suicidal ideation and suicide attempts in a sample of homeless people with mental illness. *Journal of Nervous and Mental Disease*, *191*, 365-371.

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DosReis, S., Zito, J. M., Safer, D. J., & Soeken, K. L. (2001). Mental health services for youths in foster care and disabled youths. *American Journal of Public Health*, *91*, 1094-1099.

Durham, K. (2003). *Housing youth: Key issues in supportive housing*. Washington, DC: Corporation for Supportive Housing. Retrieved from http://www.documents.csh.org/documents/pd/youth/housingyouth.pdf

English, A., Morreale, M. C., & Larsen, J. (2003). Access to health care for youth leaving foster care: Medicaid and SCRIP. *Journal of Adolescent Health*, *32*, 53-69.

Ensign, J. (1998). Health issues of homeless youth. *Journal of Social Distress and the Homeless*, *7*, 159-174.

Ensign, J. (2000). Reproductive health of homeless adolescent women in Seattle, Washington, USA. *Women and Health*, *31*, 133-151.

Ensign, J. (2004). Quality of health care: The views of homeless youth. *Health Services Research*, *39*, 695-707.

Ensign, J., & Bell, M. (2004). Illness experiences of homeless youth. *Qualitative Health Research*, *14*, 1239-1254.

Ensign, J., & Gittelsohn, J. (1998). Health and access to care: Perspectives of homeless youth in Baltimore City, USA. *Social Science and Medicine*, *47*, 2087-2099.

Ensign, J., & Panke, A. (2002). Barriers and bridges to care: Voices of homeless female adolescent youth in Seattle, Washington. *Journal of Advanced Nursing*, *37*, 166-172.

Ensign, J., & Santelli, J. (1997). Shelter-based homeless youth–Health and access to care. *Archives of Pediatrics and Adolescent Medicine*, *151*, 817-823.

Fitzpatrick, K. M., La Gory, M. E., & Ritchey, F. J. (2003). Factors associated with health-compromising behavior among the homeless. *Journal of Health Care for the Poor and Underserved*, *14*, 70-86.

Forst, M. L. (1994). Substance use profile of delinquent and homeless youths. *Journal of Drug Education*, *24*, 219-231.

Geber, G. M. (1997). Barriers to health care for street youth. *Journal of Adolescent Youth*, *21*, 287-290.

Ginzler, J. A., Cochran, B. N., Domenech-Rodriguez, M., Cauce, A. M., & Whitbeck, L. B. (2003). Sequential progression of substance use among homeless youth: An empirical investigation of the gateway theory. *Substance Use and Misuse*, *38*, 725-758.

Gleghorn, A. A., Marx, R., Vittinghoff, E., & Katz, M. H. (1998). Association between drug use patterns and HIV risks among homeless, runaway, and street youth in northern California. *Drug and Alcohol Dependence*, *51*, 219-227.

Goodman, E., & Berecochea, J. E. (1994). Predictors of HIV testing among runaway and homeless adolescents. *Journal of Adolescent Health*, *15*, 566-572.

Goodman, E., Samples, C. L., Keenan, P. M., Fox, D. J., Melchiono, M., & Woods, E. R. (1999). Evaluation of a targeted HIV testing program for at-risk youth. *Journal of Health Care for the Poor and Underserved*, *10*, 430-442.

Goulart, M., & Madover, S. (1991). AIDS prevention program for homeless youth. *Journal of Adolescent Health*, *12*, 576-579.

Green, J. M., Ennett, S. T., & Ringwalt, C. L. (1997). Substance use among runaway and homeless youth in three national samples. *American Journal of Public Health*, *87*, 229-235.

Grigsby, R. K. (1992). Mental health consultation at a youth shelter: An ethnographic approach. *Child and Youth Care Forum*, *21*, 247-261.

Gwadz, M. V., Clatts, M. C., Leonard, N. R., & Goldsamt, L. (2004). Attachment style, childhood adversity, and behavioral risk among young men who have sex with men. *Journal of Adolescent Health*, *34*, 402-413.

Haley, N., Roy, E., Leclerc, P., Boudreau, J. F., & Boivin, J. F. (2004a). Characteristics of adolescent street youth with a history of pregnancy. *Journal of Pediatric and Adolescent Gynecology*, *17*, 313-320.

Haley, N., Roy, E., Leclerc, P., Boudreau, J. F., & Boivin, J. F. (2004b). HIV risk profile of male street youth involved in survival sex. *Sexually Transmitted Infections*, *80*, 526-530.

Kipke, M. D., Montgomery, S. B., Simon, T. R., & Iverson, E. F. (1997). Substance abuse disorders among runaway and homeless youth. *Substance Use and Misuse*, *32*, 969-986.

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Klee, H. (1993). HIV risks for women drug infectors: Heroin and amphetamine users compared. *Addiction*, *88*, 1055-1062.

Klein, J. D., Woods, A. H., Wilson, K. M., Prospero, M., Greene, J., & Ringwalt, C. (2000). Homeless and runaway youths' access to health care. *Journal of Adolescent Health*, *27*, 331-339.

Kral, A. H., Molnar, B. E., Booth, R. E., & Watters, J. K. (1997). Prevalence of sexual risk behavior and substance use among runaway and homeless adolescents in San Francisco, Denver, and New York City. *International Journal of STD and AIDS*, *8*, 109-117.

Lifson, A. R., & Halcon, L. L. (2001). Substance abuse and high-risk needle-related behaviors among homeless youth in Minneapolis: Implications for prevention. *Journal of Urban Health-Bulletin of the New York Academy of Medicine*, *78*, 690-698.

Lin, Y. G., Melchiono, M. W., Huba, G. J., & Woods, E. R. (1998). Evaluation of a linked service model of care for HIV-positive, homeless, and at-risk youths. *AIDS Patient Care and STDs*, *12*, 787-796.

McCaskill, P. A., Toro, P. A., & Wolfe, S. M. (1998). Homeless and matched housed adolescents: A comparative study of psychopathology. *Journal of Clinical Child Psychology*, *27*, 306-319.

McKenzie, M., Tulsky, J. P., Long, H. L., Chesney, M., & Moss, A. (1999). Tracking and follow-up of marginalized populations: A review. *Journal of Health Care for the Poor and Underserved*, *10*, 409-429.

Miles, K., Edwards, S., & Clapson, M. (2004). Transition from pediatric to adult services: experiences of HIV-positive adolescents. *AIDS Care–Psychological and Socio-Medical Aspects of AIDS/HIV*, *16*, 305-314.

Molnar, B. E., Shade, S. B., Kral, A. H., Booth, R. E., & Watters, J. K. (1998). Suicidal behavior and sexual/physical abuse among street youth. *Child Abuse and Neglect*, *22*, 213-222.

Moon, M. W., McFarland, W., Kellogg, T., Baxter, M., Katz, M. H., MacKellar, D., et al. (2000). HIV risk behavior of runaway youth in San Francisco: Age of consent and relation to sexual orientation. *Youth and Society*, *32*, 184-201.

Noell, J., Rohde, P., Ochs, L., Yovanoff, P., Alter, M. J., Schmid, S., et al. (2001). Incidence and prevalence of chlamydia, herpes, and viral hepatitis in a homeless adolescent population. *Sexually Transmitted Diseases*, *28*, 4-10.

Noell, J. W., & Ochs, L. M. (2001). Relationship of sexual orientation to substance use, suicidal ideation, suicide attempts, and other factors in a population of homeless adolescents. *Journal of Adolescent Health*, *29*, 31-36.

Nyamathi, A. M., Christiania, A., Windokun, F., Jones, T., Strehlow, A., & Shoptaw, S. (2005). Hepatitis C virus infection, substance use and mental illness among homeless youth: A review. *AIDS*, *19*, S34-S40.

Panter-Brick, C. (2002). Street children, human rights, and public health: A critique and future directions. *Annual Review of Anthropology*, *31*, 147-171.

Rew, L. (2003). A theory of taking care of oneself grounded in experiences of homeless youth. *Nursing Research*, *52*, 234-241.

Rew, L., Chambers, K. B., & Kulkarnia, S. (2002). Planning a sexual health promotion intervention with homeless adolescents. *Nursing Research*, *51*, 168-174.

Rew, L., Fouladi, R. T., & Yockey, R. D. (2002). Sexual health practices of homeless youth. *Journal of Nursing Scholarship*, *34*, 139-145.

Rew, L., & Horner, S. D. (2003). Personal strengths of homeless adolescents living in a high-risk environment. *Advances in Nursing Science*, *26*, 90-101.

Rew, L., Taylor-Seehafer, M., & Fitzgerald, M. L. (2001). Sexual abuse, alcohol and other drug use, and suicidal behaviors in homeless adolescents. *Issues in Comprehensive Pediatric Nursing*, *24*, 225-240.

Rew, L., Taylor-Seehafer, M., Thomas, N. Y., & Yockey, R. D. (2001). Correlates of resilience in homeless adolescents. *Journal of Nursing Scholarship*, *33*, 33-40.

Richardson, E., Sellors, J. W., Mackinnon, S., Woodcox, V., Howard, M., Jang, D., et al. (2003). Prevalence of chlamydia trachomatis infections and specimen collection preference among women, using self-collected vaginal swabs in community settings. *Sexually Transmitted Diseases*, *30*, 880-885.

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Ringwalt, C. L., Greene, J. M., Robertson, M., & McPheeters, M. (1998). The prevalence of homelessness among adolescents in the United States. *American Journal of Public Health*, *88*, 1325-1329.

Robert, M., Pauze, R., & Fournier, L. (2005). Factors associated with homelessness of adolescents under supervision of the youth protection system. *Journal of Adolescence*, *28*, 215-230.

Rosenthal, D., & Rotheram-Borus, M. J. (2005). Young people and homelessness. *Journal of Adolescence*, *28*, 167-169.

Roy, E., Haley, N., Leclerc, P., Cedras, L., Weber, A. E., Claessens, C., et al. (2003). HIV incidence among street youth in Montreal, Canada. *AIDS*, *17*, 1071-1075.

Shelter Partnership. (1997). *A report on transitional housing for emancipated foster youth in Los Angeles County*. Retrieved from http://www.shelterpartnership.org/homleessness/publications.htm

Simons, R. L., & Whitbeck, L. B. (1991). Sexual abuse as a precursor to prostitution and victimization among adolescent and adult homeless women. *Journal of Family Issues*, *12*, 361-379.

Slesnik, N., & Prestopnik, J. L. (2005a). Ecologically based family therapy outcome with substance abusing runaway adolescents. *Journal of Adolescence*, *28*, 277-298.

Slesnick, N., & Prestopnik, J. (2005b). Dual and multiple diagnosis among substance using runaway youth. *American Journal of Drug and Alcohol Abuse*, *31*, 179-201.

Sobo, E. J., Zimet, G. D., Zimmerman, T., & Cecil, H. (1997). AIDS misconceptions among runaway adolescents. *Human Organization*, *56*, 311-320.

Steele, R. W., & O'Keefe, M. A. (2001). A program description of health care interventions for homeless teenagers. *Clinical Pediatrics*, *40*, 259-263.

Taylor, D. M., Lydon, J. E., Bougie, E., & Johannsen, K. (2004). "Street kids": Towards an understanding of their motivational context. *Canadian Journal of Behavioural Science*, *36*, 1-16.

Taylor-Seehafer, M. A. (2004). Positive youth development: Reducing the health risks of homeless youth. *The American Journal of Maternal Child Nursing*, *29*, 36-40.

Taylor-Seehafer, M., Rew, L., & Sternglanz, W. (2005). Gender and sexual orientation differences in personal resources, social resources, and sexual health outcomes in homeless youth. *Journal of Adolescent Health*, *36*, 142.

Tenner, A. D., Trevithick, L. A., Wagner, V., & Burch, R. (1998). Seattle YouthCare's prevention, intervention, and education programs: A model of care for HIV-positive, homeless, and at-risk youth. *Journal of Adolescent Health*, *23*, 96-106.

Tsu, R. C., Burm, M. L., Gilhooly, J. A., & Sells, C. W. (2002). Telephone vs. face-to-face notification of HIV results in high-risk youth. *Journal of Adolescent Health*, *30*, 154-160.

Tyler, K. A., Cauce, A. M., & Whitbeck, L. (2004). Family risk factors and prevalence of dissociative symptoms among homeless and runaway youth. *Child Abuse and Neglect*, *28*, 355-366.

Tyler, K. A., Whitbeck, L. B., Hoyt, D. R., & Johnson, K. D. (2003). Self-mutilation and homeless youth: The role of family abuse, street experiences, and mental disorders. *Journal of Research on Adolescence*, *13*, 457-474.

Ulager, J., Tomescu, O., Auerswald, C., & Ginsburg, K. (2005). Why should I tell you? Homeless youth share what it takes for professionals to earn their trust. *Journal of Adolescent Health*, *36*, 133-134.

Unger, J. B., Kipke, M. D., Simon, T. R., Johnson, C. J., Montgomery, S. B., & Iverson, E. (1998). Stress, coping and social support among homeless youth. *Journal of Adolescent Research*, *13*, 134-157.

Unger, J. B., Kipke, M. D., Simon, T. R., Montgomery, S. B., & Johnson, C. J. (1997). Homeless youths and young adults in Los Angeles: Prevalence of mental health problems and the relationship between mental health and substance abuse disorders. *American Journal of Community Psychology*, *25*, 371-394.

Van Leeuwen, J. (2004). Reaching the hard to reach: Innovative housing for homeless youth through strategic partnerships. *Child Welfare*, *83*, 453-468.

Van Leeuwen, J. M., Hopfer, C., Hooks, S., White, R., Petersen, J., & Pirkopf, J. (2004). A snapshot of substance abuse among homeless and runaway youth in Denver, Colorado. *Journal of Community Health*, *29*, 217-229.

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Voisin, D. R. (2005). The relationship between violence exposure and HIV sexual risk behaviors: Does gender matter? *American Journal of Orthopsychiatry*, *75*, 497-506.

Votta, E., & Manion, I. G. (2003). Factors in the psychological adjustment of homeless adolescent males: The role of coping style. *Journal of the American Academy of Child and Adolescent Psychiatry*, *42*, 778-785.

Votta, E., & Manion, I. (2004). Suicide, high-risk behaviors, and coping style in homeless adolescent males' adjustment. *Journal of Adolescent Health*, *34*, 237-243.

Walters, A. S. (1999). HIV prevention in street youth. *Journal of Adolescent Health*, *25*, 187-198.

Weinstock, H., Berman, S., & Cates, W., Jr. (2004). Sexually transmitted diseases among American youth: Incidence and prevalence estimates, 2000. *Perspectives in Sexual Reproductive Health*, *36*, 6-10.

Wexler, S. (1997). AIDS knowledge and educational preferences of at-risk runaway/homeless and incarcerated youth. *Children and Youth Services Review*, *19*, 667-681.

Whitbeck, L. B., Chen, X. J., Hoyt, D. R., Tyler, K. A., & Johnson, K. D. (2004). Mental disorder, subsistence strategies, and victimization among gay, lesbian, and bisexual homeless and runaway adolescents. *Journal of Sex Research*, *41*, 329-342.

Wilder Research. (2005). *Homeless in Minnesota: A closer look–Youth and young adults on their own*. Available from http://www.wilder.org

Woods, E. R., Samples, C. L., Melchiono, M. W., Keenan, P. M., Fox, D. J., Chase, L. H., et al. (1998). Boston HAPPENS Program—A model of health care for HIV-positive, homeless, and at-risk youth. *Journal of Adolescent Health*, *23*, 37-48.

Woods, E. R., Samples, C. L., Melchiono, M. W., Keenan, P. M., Fox, D. J., & Harris, S. K. (2002). Initiation of services in the Boston HAPPENS Program: Human immunodeficiency virus-positive, homeless, and at-risk youth can access services. *AIDS Patient Care and STDS*, *16*, 497-510.

Yates, G. L., Mackenzie, R. G., Pennbridge, J., & Swofford, A. (1991). A risk profile comparison of homeless youth involved in prostitution and homeless youth not involved. *Journal of Adolescent Health*, *12*, 545-548.

Yoder, K. A., Hoyt, D. R., & Whitbeck, L. B. (1998). Suicidal behavior among homeless and runaway adolescents. *Journal of Youth and Adolescence*, *27*, 753-771.

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