Journal of Adolescent Health 52 (2013) 634–640

ELSEVIER

JOURNAL OF ADOLESCENT HEALTH

www.jahonline.org

Original article

Mental Health Problems in Teens Investigated by U.S. Child Welfare Agencies

Amy Heneghan, M.D. [a,b,*], Ruth E.K. Stein, M.D. [c], Michael S. Hurlburt, Ph.D. [d,e], Jinjin Zhang, M.Sc., M.A. [e], Jennifer Rolls-Reutz, M.P.H. [e], Emily Fisher, M.S.W. [e], John Landsverk, Ph.D. [e], and Sarah McCue Horwitz, Ph.D. [f]

[a] *Palo Alto Medical Foundation, Palo Alto, California*
[b] *Case Western Reserve University School of Medicine, Cleveland, Ohio*
[c] *Department of Pediatrics, Albert Einstein College of Medicine/Children's Hospital at Montefiore, Bronx, New York*
[d] *School of Social Work, University of Southern California, Los Angeles, California*
[e] *Child and Adolescent Services Research Center, Rady Children's Hospital, San Diego, California*
[f] *Department of Child and Adolescent Psychiatry, New York University School of Medicine, New York, New York*

Article history: Received May 12, 2012; Accepted October 30, 2012
Keywords: Adolescent; Teens; Mental health; Child welfare; Child welfare investigation; Foster care; National Survey of Child and Adolescent Well-Being

A B S T R A C T

Purpose: To examine prevalence and correlates of five mental health (MH) problems among 12–17.5 year olds investigated by child welfare.
Methods: Data from the National Survey on Child and Adolescent Well-being (NSCAW II) were analyzed to examine depression, anxiety, substance use/abuse, suicidality, and attention deficit hyperactivity disorder (ADHD) as reported by teens and their caregivers. In a sample of 815 adolescents, prevalence for each MH problem and correlates (e.g., age, placement location) were identified using bivariate and multivariable logistic analyses.
Results: After investigation for maltreatment, 42.7% of teens reported at least one MH problem, regardless of placement. Nine percent reported depression, 13.9% reported suicidality, 23% had substance use/abuse, 13.5% reported anxiety, and 18.6% had ADHD. Of 332 teens with any MH problem, 52.1% reported only one problem, 28.3% had two problems, and 19.6% had $\geq$ three problems. Teens with prior out-of-home placement had odds 2.29 times higher of reporting a MH problem and odds 2.12 times higher of reporting substance use/abuse. Males were significantly less likely to report depression. Older teens were more likely to report substance use/abuse. Black teens were significantly less likely to report suicidality and ADHD and almost half as likely to report anxiety. Teens with a chronic health condition and teens whose caregiver reported depression had more than twice the odds of reporting anxiety.
Conclusions: This study highlights high rates of MH problems in teens of all ages and placement locations and suggests that all teens involved with child welfare should be screened for MH problems, regardless of initial placement status.

IMPLICATIONS AND CONTRIBUTION

Using data from the National Survey on Child and Adolescent Well-being (NSCAW II), we expand on prior studies by reporting prevalence and correlates of mental health (MH) problems in adolescents across varied initial placements, using the full range of adolescent ages, and considering the time frame of ascertainment for each MH problem.

Adolescents experience high rates of mental health (MH) problems, such as depression, anxiety, and substance abuse. National prevalence estimates of MH disorders among teens are 40.3% over 12 months and 23.4% over the past 30 days [1]. Teens investigated for alleged maltreatment are at particularly high risk for MH problems [2–4]. Identifying and treating these adolescents is critically important because data from the Adverse Childhood Experiences (ACE) study point to childhood abuse and neglect as precursors for adult physical and MH problems, including substance abuse, sexually transmitted diseases, and criminal behavior [5].

* Address correspondence to: Amy Heneghan, M.D., Palo Alto Medical Foundation, 795 El Camino Real, Palo Alto, CA 94301.
E-mail address: henegha@pamf.org (A. Heneghan).

1054-139X/$ – see front matter © 2013 Society for Adolescent Health and Medicine. All rights reserved.
http://dx.doi.org/10.1016/j.jadohealth.2012.10.269

Teens investigated for child maltreatment are more likely to remain at home following investigation than younger children [6]. Despite this, most studies examining MH problems for teens involved with child welfare focus on those in foster care and suggest that rates of MH problems range from 40% to 80% [7,8], depending on the population studied and methods of identification. Data from the 2000 National Household Survey on Drug Abuse suggest that adolescents aged 12–17 years who had ever been in foster care had a higher prevalence of psychiatric symptoms, drug use disorders, and suicide attempts than those never placed in foster care [9]. Among older teens in foster care in three Midwestern states, rates of post-traumatic stress disorder, substance abuse, and depression were 15.1%, 14.1%, and 10.5% respectively [10]. McMillen et al. examined 373 17-year-olds in the foster care system in Missouri and found that 61% had at least one psychiatric disorder in their lifetime, with 62% having their earliest presentation prior to entering foster care [11].

Only one prior study, the National Survey on Child and Adolescent Well-Being (NSCAW I), a nationally representative, longitudinal study of children ages birth to 15 years, provided an opportunity to examine MH problems in teens referred to child welfare, regardless of their initial placement. Using these data, Leslie et al. found that almost half of the 11- to 15-year-olds indicated >1 MH problem, with 30-day rates of depression, suicidality, and alcohol abuse of 13%, 7.9%, and 16.1% respectively [12]. While this study evaluated children living in both out-of-home and in-home placements, only younger teens were included in the NSCAW I cohort. Similar prevalence for MH problems was reported by Orton et al. using NSCAW I data, who also noted that 87% of teens remained at home [13].

Previous studies have not consistently examined MH problems across the range of placement locations (e.g., in-home, foster care, kinship care) through both early and late adolescence. The time frame for ascertainment has varied across studies, ranging from 2 weeks to 12 months. Although all prior rates of teen MH problems are high, comparisons across age groups and placement settings remain challenging, yet a second National Survey on Child and Adolescent Well-being (NSCAW II) provides data on a nationally representative sample of children who have been investigated for maltreatment up to age 17.5 years. Teens in this sample, especially those who remain at home, are an at-risk population that has not been extensively studied in previous reports. Using data from this national cohort, we examine the prevalence and associated correlates of MH disorders in teens who remain at home or are placed in foster care. These analyses expand beyond prior studies of teens in foster care by allowing comparisons of the prevalence and correlates of MH problems of adolescents across a spectrum of initial placements and the full adolescent-age range.

Methods

Design and analytic sample

We used data from NSCAW II, a 3–year longitudinal study of 5,872 youth ages 0–17.5 years referred to U.S. child welfare agencies, for whom an investigation of alleged maltreatment was completed during the sampling period (February 2008 to April 2009). The study excluded agencies in eight states in which law required first contact of a caregiver by agency staff rather than by study staff [14]. Data from the initial interviews were collected within approximately 4 months of completed child welfare investigations. NSCAW II, like its predecessor NSCAW I, employed a two-stage stratified sample design. The first stage selected geographic areas containing a population served by a single child welfare agency. These primary sampling units (PSUs), typically counties, served as the basis from which a sample of children was drawn. NSCAW II used NSCAW I PSUs whenever possible. Seventy-one of the 92 PSUs in NSCAW I were eligible and agreed to participate in NSCAW II and 10 additional PSUs were added to replace the PSUs not participating. This sample was constructed to be representative of all children in the U.S. who were subjects of agencies' investigations for alleged maltreatment during the sampling period [15]. Data for these analyses come from the baseline interviews completed between March 2008 and September 2009. Because this study focuses on MH problems in teens, analyses reported in this manuscript used data only for children ≥12 years of age at the time of the baseline interview (N = 815) and their caregivers. All procedures for NSCAW II were approved by the Research Triangle Institute's Institutional Review Board and all analytic work on the NSCAW II de-identified data by the Rady Children's Hospital Institutional Review Board.

Analysis weights

Analysis weights were constructed in stages corresponding to the stages of the sample design, accounting for the probability of county selection and the probability of each child's selection within a county, given the youth's county of residence. Weights were further adjusted to account for population differences from those expected on the frame, small deviations from the original plan that occurred during sampling, and for nonresponse patterns and replacement PSUs. The weighting process for NSCAW II was more complex than for NSCAW I [14]. All analyses presented utilized weighting in analyses. Nonweighted cell sizes are presented for some analyses to provide detail about the amount of data upon which analyses are based. All variables were generated using these weights and can be inferred to the U.S. child welfare population [14].

Survey design and assessment procedures

Measures. Sociodemographic variables included child's age, sex, and race; child-welfare-related variables including location of placement, type of maltreatment, and prior history of involvement with child welfare. Placement location was characterized as in-home with child protective services, in-home without child protective services, nonrelative foster care, or kinship care (formal and informal). Adolescents who were placed in group or residential settings were excluded in these analyses because of small numbers and the fact that such settings are often intentionally therapeutic for the outcomes examined in this study.

The presence of a chronic physical health condition was assessed during baseline interviews by asking about the presence/absence of any of nine chronic health problems; it is well-documented that chronic physical health conditions and MH problems often co-occur in children [16–18]. The following chronic conditions were included: asthma, autism, Down syndrome, mental retardation or developmental delay, diabetes, cystic fibrosis, cerebral palsy, muscular dystrophy, and human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS).

Caregiver depression (anhedonia/dysphoria) was measured using the Composite International Diagnostic Interview Short-Form. This brief self-administered questionnaire was modified