



OJJDP Working for Youth Justice and Safety JUVENILE JUSTICE BULLETIN

July 2014

Robert L. Listenbee, Administrator

Beyond Detention

Even though research indicates that the majority of youth in the juvenile justice system have been diagnosed with psychiatric disorders, reports issued by the Surgeon General and the President's New Freedom Commission on Mental Health show that juvenile detainees often do not receive the treatment and services they need.

This bulletin series presents the results of the Northwestern Juvenile Project, the first large-scale, prospective longitudinal study of drug, alcohol, and psychiatric disorders in a diverse sample of juvenile detainees. Individual bulletins examine topics such as suicidal behaviors in youth in detention, posttraumatic stress disorder and trauma among this population, functional impairment in youth after detention, and barriers for youth who need to receive mental health services.

Nearly all detained youth eventually return to their communities, and the findings presented in this series provide empirical evidence that can be used to better understand how to meet youth's mental health needs and provide appropriate services while in detention and after their release. The Office of Juvenile Justice and Delinquency Prevention hopes this knowledge will help guide innovative juvenile justice policy and create a better future for youth with psychiatric disorders in the justice system.

Suicidal Thoughts and Behaviors Among Detained Youth

Karen M. Abram, Jeanne Y. Choe, Jason J. Washburn, Linda A. Teplin, Devon C. King, Mina K. Dulcan, and Elena D. Bassett

Highlights

Incarcerated youth die by suicide at a rate two to three times higher than that of youth in the general population. In this bulletin, the authors examine suicidal thoughts and behaviors among 1,829 youth ages 10 to 18 in the Northwestern Juvenile Project—a longitudinal study of youth detained at the Cook County Juvenile Temporary Detention Center in Chicago, IL.

Key findings include the following:

- Approximately 1 in 10 juvenile detainees (10.3 percent) thought about suicide in the past 6 months, and 11 percent had attempted suicide.
- More than one-third of male juvenile detainees and nearly half of female juvenile detainees felt hopeless or thought a lot about death or dying in the 6 months prior to detention.
- Recent suicide attempts were most prevalent in female detainees and youth with anxiety disorders.
- Fewer than half of detainees with recent thoughts of suicide had told anyone about their suicidal thoughts.



JULY 2014

JUVENILE JUSTICE BULLETIN

Suicidal Thoughts and Behaviors Among Detained Youth

Karen M. Abram, Jeanne Y. Choe, Jason J. Washburn, Linda A. Teplin, Devon C. King, Mina K. Dulcan, and Elena D. Bassett

At a rate of 10.5 per 100,000 adolescents measured in 2010, suicide is the third-leading cause of death in youth between 15 and 24 years old (Centers for Disease Control and Prevention, 2013). Youth suicide has nearly doubled since 1950, increasing at a faster rate than among adults age 25 and older (National Center for Health Statistics, 2004). National data suggest that incarcerated youth are at particularly greater risk for suicide; the prevalence rates of completed suicide for this group are between two and four times higher than those for youth in the general population (Gallagher and Dobrin, 2006; Memory, 1989).

A number of factors may play a role in juvenile detainees considering and attempting suicide more often than youth in the general population. Incarcerated youth often have characteristics commonly associated with increased risk for suicide (Hayes, 2004), such as high rates of psychiatric disorders (Teplin et al., 2002) and trauma (Abram et al., 2004; Shelton, 2000). Studies suggest that conditions associated with confinement, such as separation from loved ones (Pogrebin, 1985), crowding (Parent et al., 1994), sleeping in locked rooms (Gallagher and Dobrin, 2006), and solitary confinement (Marcus and Alcabes, 1993; Parent et al., 1994) may also increase the risk for suicide among detained youth.

Detention provides the juvenile justice system its first opportunity to systematically screen youth for risk of suicide. Screening for current and prior suicidal ideation (i.e., suicidal thoughts) and behaviors is critical for prevention. A national study of 79 suicides among incarcerated and detained youth found that more than two-thirds of the victims had made prior attempts, reported suicidal ideation, made suicidal threats, or physically harmed themselves (Hayes, 2004). Thus, corrections staff may be able to significantly reduce the rates of suicide in detention if they can identify youth at risk for suicide.

To investigate the thoughts, behaviors, and psychiatric disorders associated with suicide in juvenile detainees, researchers at Northwestern University conducted a longitudinal study of 1,829 detained juveniles between ages 10 and 18 at the Cook County Juvenile Temporary Detention Center in Chicago, IL. This bulletin presents the results of that research.

Literature Review

Although studies have examined suicidal behaviors in youth in long-term correctional facilities (Evans et al., 1996; Penn et al., 2003), youth in residential facilities (Holsinger and Holsinger, 2005), and youth formally processed by the juvenile justice system (Wasserman and McReynolds, 2006), few large-scale investigations have examined detained youth in the United States. Findings from previous studies of detained youth vary widely. Current prevalence rates of suicidal ideation in this population vary from 14.2 percent to 51 percent (Cauffman, 2004; Esposito and Clum, 1999; Goldstein et al., 2003; Morris et al., 1995; Rohde, Seeley, and Mace, 1997; Shelton, 2000). Racial/ethnic differences in suicidal ideation also vary across studies; some report higher rates of ideation in non-Hispanic whites than in African Americans and Hispanics (Cauffman, 2004; Morris et al., 1995), whereas others report no racial/ethnic differences (Esposito and Clum, 1999; Rohde, Seeley, and Mace, 1997; Sanislow et al., 2003). Similarly, some report higher prevalence rates of ideation in females than males (Cauffman, 2004; Morris et al., 1995; Rohde, Seeley, and Mace, 1997), whereas others found no differences between genders (Esposito and Clum, 2002; Sanislow et al., 2003).

Reasons for Variation in Study Results

In some cases, variations between studies may be due to differences in sampling. The largest study of detained youth examined 18,607 admissions to detention; however, youth

may have been admitted more than once (Cauffman, 2004), which may bias estimates of suicidal ideation. The largest study of individual detainees sampled a combination of 451 youth held in detention and 1,350 youth incarcerated in long-term facilities (Morris et al., 1995). However, Morris and colleagues' findings were not reported by type of facility, and combining the results for all youth is problematic because youth in detention and youth in prison have different patterns of suicidal behavior (Hayes, 2004). For example, 40 percent of completed juvenile suicides in detention occur within 3 days of admission. In contrast, for youth in long-term facilities, more than 72 percent of completed suicides occur after 3 months (Hayes, 2004).

Variation in prevalence rates also may be due to differences in measurement. Although all previous studies used questionnaires to assess suicidal ideation and behavior, some were self-administered (Cauffman, 2004; Esposito and Clum, 1999, 2002; Goldstein et al., 2003; Sanislow et al., 2003; Shelton, 2000) and others were group-administered (Morris et al., 1995), which may affect motivation to disclose.

Gaps in the Research Literature

There are several key omissions in the literature. First, many of the samples were too small or homogeneous for researchers to examine differences by race/ethnicity and gender (Goldstein et al., 2003; Rohde, Seeley, and Mace, 1997; Sanislow et al., 2003). Researchers must examine these differences because suicidal ideation and attempts

vary by these characteristics in the general population (Flannery, Singer, and Wester, 2001; Gould et al., 2003; Kessler, Borges, and Walters, 1999; Lewinsohn, Rohde, and Seeley, 1996). Understanding demographic differences also helps researchers identify culturally relevant and gender-specific interventions for detained youth.

Second, research on suicide attempts is limited. Only three studies examined prevalence rates of suicide attempts in juvenile detainees (Esposito and Clum, 2002; Morris et al., 1995; Rohde, Seeley, and Mace, 1997). Due to differences in the methodologies that the researchers employed, the rates reported in these studies vary widely. Rohde, Mace, and Seeley report a lifetime attempt rate of 19.4 percent; Morris and colleagues report a past-year attempt rate of 15.5 percent; and Esposito and Clum report lifetime, past-year, and past-month attempt rates of 33 percent, 29 percent, and 26 percent, respectively. Past suicide attempts are powerful predictors of future attempts (Hayes, 2004) and should be studied more closely.

Finally, few studies of detained youth have examined the relationship between psychiatric diagnosis and suicide risk, and those that did relied on small samples (Rohde, Mace, and Seeley, 1997) or examined a limited range of disorders (Morris et al., 1995; Rohde, Seeley, and Mace, 1997). Psychopathology is consistently linked with risk for suicide in adolescents (Gould et al., 1998) and is prevalent in detainees (Teplin et al., 2002; Wasserman et al., 2002). Research has identified depression (Rohde, Mace, and Seeley, 1997; Wasserman and McReynolds, 2006), anxiety

ABOUT THIS SERIES

Studies in this series describe the results of statistical analyses of the Northwestern Juvenile Project, a longitudinal study of youth detained at the Cook County Juvenile Temporary Detention Center in Chicago, IL, between 1995 and 1998. The sample included 1,829 male and female detainees between ages 10 and 18. The data come from structured interviews with the youth.

Topics covered in the series include the prevalence of suicidal thoughts and behaviors among juvenile detainees, posttraumatic stress disorder and trauma within this population, functional impairment after detention (at work, at school, at home, or in the community), psychiatric disorders in youth processed in juvenile or adult court, barriers to mental health services, violent death among delinquent youth, and the prevalence of psychiatric disorders in youth after detention. The bulletins can be accessed from the Office of Juvenile Justice and Delinquency Prevention's (OJJDP's) Web site, ojjdp.gov.

In addition to the funding that OJJDP provided, the research also was supported by the National Institute on Drug Abuse, the National Institute of Mental Health, the National Institute on Alcohol Abuse and Alcoholism, the Substance Abuse and Mental Health Services Administration (Center for Mental Health Services, Center for Substance Abuse Prevention, and Center for Substance Abuse Treatment), the Centers for Disease Control and Prevention (National Center for Injury Prevention and Control and National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention), the National Institutes of Health Office of Research on Women's Health, the National Institute on Minority Health and Health Disparities, the Office of Rare Diseases, the Office of Behavioral and Social Sciences Research, the U.S. Departments of Labor and Housing and Urban Development, the William T. Grant Foundation, and the Robert Wood Johnson Foundation. The John D. and Catherine T. MacArthur Foundation, the Open Society Foundations, and the Chicago Community Trust provided additional funds.

(Rohde, Mace, and Seeley, 1997), substance use (Morris et al., 1995; Wasserman and McReynolds, 2006), and behavioral disturbances in boys (Rohde, Mace, and Seeley, 1997) as correlates of past suicide attempts for youth involved in the justice system.

The research summarized in this bulletin represents the first large-scale epidemiological study of detained youth in the United States that uses a comprehensive, standardized interview to examine prevalence rates of suicidal ideation and behaviors, the relationship between recent suicide attempts and psychiatric disorders, and differences by gender and race/ethnicity.

Methods

The authors assessed suicidal ideation, suicide attempts, the lethality of suicide attempts, and a wide range of psychiatric disorders in detained youth. This section provides a brief overview of the authors' methods. Additional, detailed information on the researchers' methods and statistical analysis can be found in Abram et al. (2003) and Teplin et al. (2002).

Participants and Sampling Procedures

Participants were part of the Northwestern Juvenile Project, a longitudinal study of 1,829 youth (ages 10–18) arrested and detained between November 20, 1995, and June 14, 1998, at the Cook County Juvenile Temporary Detention Center (CCJTDC) in Chicago, IL. The random sample was stratified by gender, race/ethnicity (African American, non-Hispanic white, Hispanic, or other), age (10–13 years or 14 years and older), and legal status (processed in juvenile court or adult court) to obtain enough participants to examine key subgroups (e.g., females, Hispanics, younger children).

Like juvenile detainees nationwide, the majority of CCJTDC detainees are male and most belong to racial/ethnic minority groups (77.9 percent African American, 5.6 percent non-Hispanic white, 16 percent Hispanic, and 0.5 percent other racial/ethnic groups). The age and offense distributions of the CCJTDC detainees are also similar to detained juveniles nationwide (Snyder and Sickmund, 2006).

The authors chose the detention center in Cook County, which includes Chicago and surrounding suburbs, for three reasons:

- Nationwide, most juvenile detainees live in and are detained in urban areas (Pastore and Maguire, 2000).
- Cook County is ethnically diverse and has one of the largest Hispanic populations in the United States (U.S.

Census Bureau, 2001). Studying this population is important because Hispanics are the largest minority group in the United States (U.S. Census Bureau, 2010).

- The detention center's size (daily census of approximately 650 youth and intake of 20 youth per day) ensured that a large enough pool of participants would be available.

The final sample of 1,829 youth was composed of 1,172 males (64.1 percent) and 657 females (35.9 percent); 1,005 (54.9 percent) were African American, 524 (28.7 percent) were Hispanic, 296 (16.2 percent) were non-Hispanic white, and 4 (0.2 percent) were from other racial/ethnic groups. The mean age of participants was 14.9 years and the median age was 15 years.

Detainees were eligible to participate regardless of psychiatric morbidity, alcohol or other drug intoxication, or fitness to stand trial. Participants were interviewed privately for 2 to 3 hours, usually within 2 days of intake.

Measures

The researchers used version 2.3 of the Diagnostic Interview Schedule for Children (DISC) (Bravo et al., 1993; Shaffer et al., 1996) in English and Spanish. DISC 2.3 assesses the presence of the following disorders from the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised* (DSM-III-R) in interviewees within the past 6 months: major depression, dysthymia, mania, hypomania, panic disorder, separation-anxiety disorder, overanxious disorder, generalized anxiety disorder, obsessive-compulsive disorder, psychotic disorder, attention-deficit/hyperactivity disorder, oppositional defiant disorder, conduct disorder, marijuana use disorder, alcohol use disorder, and other drug use disorder. DISC 2.3 also includes specific questions that assess thoughts of death, suicidal ideation, suicide plans, lifetime suicide attempts, number of suicide attempts, age at first suicide attempt, suicide attempts within the past 6 months, and method of suicide attempts. For analyses including psychiatric diagnoses, the researchers excluded items related to suicidal ideation and behavior from the diagnostic algorithms for major depression and dysthymia to avoid inflating the relationship between the two conditions.

Findings

Table 1 shows the prevalence rates of suicidal ideation and behavior by gender and race/ethnicity. Results are summarized by type of suicidal ideation and behavior and are described below.

Hopelessness. More than one-third of the juvenile detainees had at some point felt that life was hopeless.

Table 1. Prevalence of Suicidal Thoughts and Behavior Among Juvenile Detainees

Suicidal Ideation and Behavior	Total ¹ (n = 1,826)	Females				Males			
		Total ² (n = 656)	African American (n = 430)	Non-Hispanic White (n = 89)	Hispanic (n = 136)	Total ³ (n = 1,170)	African American (n = 574)	Non-Hispanic White (n = 207)	Hispanic (n = 386)
Ever felt life was hopeless	36.2%	44.2%	40.7%	45.6%	52.2%	35.6%	34.8%	42.6%	38.2%
Thought a lot about death or dying in the past 6 months	35.4	31.5	32.0	26.7	35.4	35.7	35.5	25.1	29.8
Thought a lot about death for 2 weeks or more in the past 6 months	20.2	18.8	18.5	13.4	25.8	20.3	20.3	16.3	22.1
Thought a lot about suicide or killing yourself in the past 6 months	10.3	19.3	17.4	20.0	28.7	9.5	8.5	18.1	12.0
Thought about killing yourself a lot of the time for 2 weeks or more in the past 6 months	3.7	8.3	7.0	4.4	17.2	3.3	2.6	9.3	5.2
Had specific suicide plan in the past 6 months	5.5	10.5	10.0	8.9	14.8	5.1	4.7	6.9	6.8
Told anyone about suicidal wish in the past 6 months	4.7	9.5	8.1	12.2	15.0	4.3	4.3	11.2	2.5
Ever attempted suicide	11.0	27.1	22.0	42.8	31.7	9.8	9.4	18.0	9.2
Attempted suicide in the past 6 months	3.0	8.4	8.0	7.9	11.5	2.5	1.8	5.7	4.9

¹ The original sample included 1,829 participants, but 3 did not receive the Diagnostic Interview Schedule for Children, Version 2.3.

² One female of “other” race/ethnicity was included in the totals but was excluded from all analyses of race/ethnicity.

³ Three males of “other” race/ethnicity were included in the totals but were excluded from all analyses of race/ethnicity.

Significantly more females (44.2 percent) than males (35.6 percent) had ever felt that life was hopeless.

Thoughts about death and dying. More than one-third of the youth had thought a lot about death and dying in the 6 months prior to the interview. Significantly more Hispanics and African Americans than non-Hispanic white males had thoughts of death and dying. During the past 6 months, approximately one-fifth of the youth had thought about death and dying for at least 2 weeks.

Thoughts about suicide. Approximately 10 percent of the sample had thoughts about suicide in the past 6 months. Significantly more females (19.3 percent) than males (9.5 percent) had thought about suicide. More Hispanic than African American females had thought about suicide. Significantly more non-Hispanic white than African American males reported thoughts of suicide.

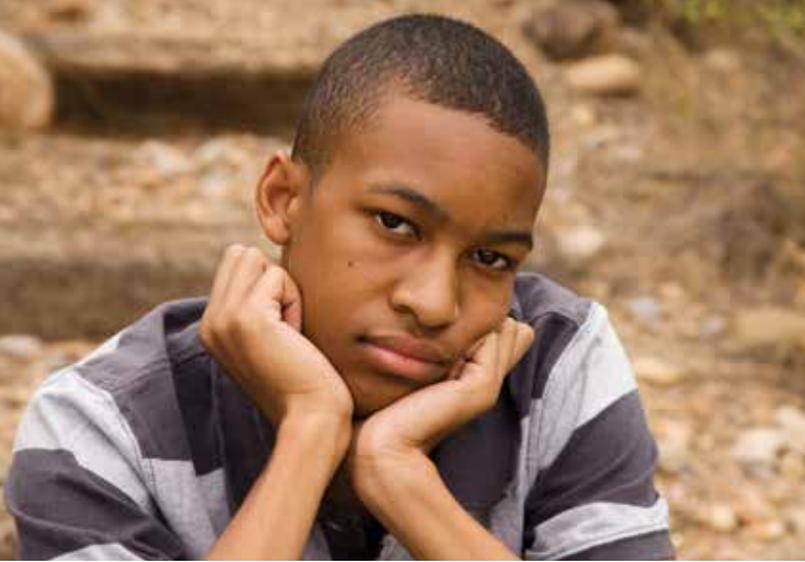
Nearly 4 percent of the sample had thought “a lot” about suicide for at least 2 weeks in the past 6 months, and significantly more females (8.3 percent) than males (3.3 percent) had such thoughts. Significantly more Hispanic than non-Hispanic white females had thought about killing themselves for 2 or more weeks. Significantly more non-Hispanic white than African American males had thoughts about suicide for 2 or more weeks.

Suicide plan. Nearly 6 percent of the youth developed a specific plan for suicide in the past 6 months. Significantly more females (10.5 percent) than males (5.1 percent) had a suicide plan.

Telling someone about suicidal thoughts. Among youth who had suicidal thoughts in the past 6 months, 46.1 percent had told someone about those thoughts (approximately 5 percent of the total sample). Significantly more females than males had told someone about their suicidal thoughts. Significantly more non-Hispanic white males (11.2 percent) than African American (4.3 percent) or Hispanic (2.5 percent) males had told someone that they were thinking about suicide.

Suicide attempts. Eleven percent of the youth had attempted suicide at least once. Those who had attempted suicide had made an average of two attempts. The average age at first suicide attempt was 12.7 years. Significantly more females than males had attempted suicide. Significantly more non-Hispanic white and Hispanic females than African American females had attempted suicide. Significantly more non-Hispanic white males than African American and Hispanic males had attempted suicide.

Three percent of the sample had attempted suicide in the past 6 months. Significantly more females (8.4 percent)



than males (2.5 percent) made suicide attempts in the past 6 months.

Within their lifetimes, 283 participants had attempted suicide. The most common types of attempts included cutting (26.9 percent), drug overdose (23.8 percent), and jumping (20.7 percent) (see table 2). Less common methods included hanging, firearms, and ingestion (other than drugs). Approximately 14 percent used methods other than those that the DISC 2.3 specifically listed (e.g., running into traffic). Significantly more males than females jumped from a high place in their suicide attempt. Significantly more Hispanic males than African American males attempted suicide with firearms.

Psychiatric disorders that may increase the odds of suicide attempts. Controlling for gender, age, and race/ethnicity in separate analyses of individual disorders, most of the psychiatric disorders that the DISC assessed—including generalized anxiety disorder, overanxious disorder, major depression, oppositional defiant disorder, panic disorder, obsessive-compulsive disorder, psychotic disorder,

separation-anxiety disorder, alcohol use disorder, conduct disorder, dysthymia, and other substance use disorder—were significantly associated with a recent suicide attempt.

In a separate analysis that included gender, age, and race/ethnicity along with all of the disorders that were individually associated with the suicide attempt, generalized anxiety disorder and overanxious disorder significantly increased the odds of having made a recent suicide attempt.

Discussion of Findings

One of every ten newly detained youth has a history of attempted suicide. Because past suicide attempts are a powerful predictor of future attempts (Hayes, 2004), detained youth are at greater risk than youth in the general population (Gould et al., 1998; Foley et al., 2006; Johnson et al., 2002; Kessler, Borges, and Walters, 1999; Lewinsohn, Rohde, and Seeley, 1996).

Demographic Characteristics and Suicide Risk

Suicide risk in this study varied by demographic characteristics. Females have a greater risk for attempting suicide than males, a finding consistent with prior studies

Table 2. Method of Most Recent Suicide Attempt for Juvenile Detainees

Method of Most Recent Suicide Attempt	Total ¹ (n = 283)	Females				Males			
		Total ² (n = 177)	African American (n = 95)	Non-Hispanic White (n = 38)	Hispanic (n = 43)	Total (n = 106)	African American (n = 40)	Non-Hispanic White (n = 35)	Hispanic (n = 31)
Cutting	26.9%	39.8%	31.8%	50.7%	34.3%	24.0%	23.6%	33.7%	20.0%
Drug overdose	23.8	34.7	37.5	28.5	43.1	21.4	23.1	24.8	10.8
Jumping	20.7	5.3	8.5	2.6	0.0	24.0	22.7	12.9	37.9
Hanging	9.5	4.7	7.4	0.0	2.1	10.5	11.6	10.9	5.2
Firearms	3.7	1.7	0.0	5.2	4.3	4.1	1.3	2.9	18.9
Other ingestion	1.8	2.7	2.1	2.6	5.4	1.6	1.4	0.0	3.6
Other	13.8	11.1	12.7	10.4	10.7	14.3	16.4	14.7	3.6

¹ Out of the 1,826 participants who received the Diagnostic Interview Schedule for Children, Version 2.3, 283 reported a history of a suicide attempt.

² One female of “other” race/ethnicity was included in the totals but was excluded from all analyses of race/ethnicity.

“More than one-third of the youth had thought a lot about death and dying in the 6 months prior to the interview.”

of detained youth (Cauffman, 2004; Morris et al., 1995; Rohde, Mace, and Seeley, 1997) and a study of delinquency among youth in the general population (Thompson, Kingree, and Ho, 2006). The association with recent suicide attempts persists even after controlling for current psychiatric disorders, which also tend to be more prevalent among girls (Teplin et al., 2002).

The study also confirms and extends what is currently known about racial/ethnic differences among detained youth (Cauffman, 2004; Esposito and Clum, 2002; Morris et al., 1995; Rohde, Seeley, and Mace, 1997). Non-Hispanic whites generally have a greater risk for suicide compared to minority youth. However, this study notes a few exceptions. Hispanic females had more suicidal thoughts than females of other races/ethnicities. Studies of youth in the general population have also found that Hispanic females have higher prevalence rates of suicidal ideation and behavior than their non-Hispanic white (Roberts, Chen, and Roberts, 1997; Roberts and Chen, 1995; Tortolero and Roberts, 2001) and African American (Grunbaum et al., 2004; Sen, 2004) counterparts. Suicidal ideation and behavior appear to be most prevalent in U.S.-born Hispanic females from traditional Hispanic families, who may find it difficult to cope with contrasting social role expectations at home and among peers (Zayas et al., 2005; Zimmerman, 1991).

The authors also found that significantly more African American and Hispanic males had thoughts about death in the past 6 months than non-Hispanic whites. It is unclear whether and how concern about death among African American and Hispanic males is related to risk for suicide. Some studies suggest that such concern may result from a greater likelihood of having lost siblings and peers to violent death as compared to non-Hispanic white males (Crouch et al., 2000; Viboch, 2005). These findings also may reflect an awareness of a heightened risk of mortality. Among the Cook County sample, African American and Hispanic males had a substantially greater risk of an early violent death than non-Hispanic whites (Teplin et al., 2005).

The most common methods for recent suicide attempts reported in this study—cutting and drug overdose—are

also the most common in the general population (Gould et al., 1998). A striking finding of this study was that Hispanic males who attempted suicide were more likely to use a firearm than African American or non-Hispanic white males. This finding is of particular concern because half of all completed suicides of young men in the general population involve firearms (Centers for Disease Control and Prevention, 2013).

Psychiatric Disorders and Suicide Risk

Most of the psychiatric disorders this study assessed were associated with respondents who had made a recent suicide attempt. At a minimum, detainees who are in any type of distress must be considered at risk for self-harm. Generalized anxiety disorder and overanxious disorder were most strongly associated with a recent suicide attempt. These disorders are often difficult for correctional staff to identify because affected youth tend to be compliant and cause little trouble.

Study Limitations

The study had a few limitations worth noting. Because the measure of suicidal ideation and behavior used in this study was part of a larger diagnostic module, data were not as comprehensive and detailed as clinical measures of suicidal ideation and behavior, such as the Suicidal Behaviors Interview (Reynolds, 1990), the Suicidal Ideation Questionnaire (Reynolds, 1988), and the Scale for Suicidal Ideation (Beck, Kovacs, and Weissman, 1979; Clum and Curtin, 1993). In addition, using an interview instead of a self-report questionnaire may underreport the prevalence of suicidal ideation because youth may be more hesitant to report symptoms to an interviewer than in a completely anonymous survey. In contrast, the turmoil of recent admission to detention may increase participants' suicidal symptoms or their awareness of symptoms.

Although this study draws from a large and diverse sample, statistical power limited analyses of racial/ethnic differences for certain behaviors (e.g., method of suicide attempts) due to their lack of prevalence. Furthermore, correlational

“The average age at first suicide attempt was 12.7 years.”

analyses do not infer causality—for example, although a youth has major depression, it does not mean that this disorder necessarily is the cause of his or her suicide attempt.

Finally, findings may generalize only to juvenile detainees living in urban areas because the sample was based in Chicago. Despite these limitations, the findings presented here have important implications for research and for clinical services.

Directions for Future Research

The authors suggest that future research on juvenile suicides in detention should—

- **Investigate the factors that underlie gender and racial/ethnic differences in suicidal ideation and behavior.** Having thoughts of suicide may play a different role in suicide risk for youth of different races and ethnicities. For example, studies might investigate why suicidal ideation was most common in Hispanic females, yet non-Hispanic white females had the highest prevalence rate of suicide attempts. Further research is also needed to examine whether the disproportionate number of violent deaths among African American and Hispanic males (Teplin et al., 2005) reflects, in part, their underlying suicidal ideation. Suicidal behavior in these youth may manifest as self-destructive, reckless, or dangerous behavior, often referred to as victim-precipitated homicide or “suicide by cop” (Lindsay and Lester, 2004).
- **Study the relationship between adverse life events and thoughts of death.** Although having thoughts of death is a common risk factor for suicide in the general population, these thoughts may also reflect a greater exposure to violence, loss, and trauma among detained youth (Abram et al., 2004; Viboch, 2005). Studies are needed to examine whether having thoughts of death remains a useful marker for suicidal ideation and behavior in a population that routinely experiences loss and violence.

- **Improve methods for assessing suicidal ideation.** Research has not determined which methods best assess suicidal ideation. Some studies suggest that self-report questionnaires may yield higher prevalence rates of suicidal ideation than face-to-face interviews (Kaplan et al., 1994; Klimes-Dougan, 1998; Levine, Ancill, and Roberts, 1989). Another study suggests that a multipronged approach using both interviews and self-reports may produce the most accurate information (Klimes-Dougan, 1998). Future research should identify which methods of suicide assessment are most accurate, especially for high-risk youth.

Conclusion

The research discussed in this bulletin has two clinical implications. First, juvenile detention facilities must systematically screen for suicide risk. These detention centers often provide the first opportunity to screen youth for suicide risk and to provide interventions, yet most facilities do not perform adequate screening for emergent risk (Wasserman et al., 2003). One study found that facilities that screen all juveniles within 24 hours of arrival had lower prevalence rates of serious suicide attempts than those that screen only juveniles considered at risk for suicide (Gallagher and Dobrin, 2005). Problematically, fewer than half of the detainees with recent suicidal thoughts had shared their thoughts with someone else. Thus, juvenile facilities cannot rely on juvenile detainees to inform staff that they are contemplating suicide (Gallagher and Dobrin, 2005). Identifying youth at risk for suicide reliably helps prevent suicide, both in detention centers and after youth return to their communities.

Second, psychiatric services in detention facilities must be increased. The Office of Juvenile Justice and Delinquency Prevention’s biennial Juvenile Residential Facility Census reported that 43 percent of juvenile residential facilities do not assess all youth for mental health needs (Hockenberry, Sickmund, and Sladky, 2013). Youth with psychiatric disorders, especially anxiety, may be at particular risk for suicide attempts. Detention center staff should be trained



to recognize anxiety disorders in detainees and should refer affected youth for psychiatric services. By competently assessing and treating psychiatric disorders in detained youth, facilities will prevent untimely deaths.

For More Information

This bulletin was adapted from Abram, K.M., Choe, J.Y., Washburn, J.J., Teplin, L.A., King, D.C., and Dulcan, M.K. 2008. Suicidal ideation and behaviors among youth in juvenile detention. *Journal of the American Academy of Child & Adolescent Psychiatry* 47(3):291–300.

References

Abram, K.M., Teplin, L.A., Charles, D.R., Longworth, S.L., McClelland, G.M., and Dulcan, M.K. 2004. Post-traumatic stress disorder and trauma in youth in juvenile detention. *Archives of General Psychiatry* 61(4):403–410.

Abram, K.M., Teplin, L.A., McClelland, G.M., and Dulcan, M.K. 2003. Comorbid psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry* 60(11):1097–1108.

Beck, A.T., Kovacs, M., and Weissman, A. 1979. Assessment of suicidal intention: The Scale for Suicide Ideation. *Journal of Consulting and Clinical Psychology* 47(2):343–352.

Bravo, M., Woodbury-Farina, M., Canino, G.J., and Rubio-Stipec, M. 1993. The Spanish translation and cultural adaptation of the Diagnostic Interview Schedule for Children (DISC) in Puerto Rico. *Culture, Medicine and Psychiatry* 17:329–344.

Cauffman, E. 2004. A statewide screening of mental health symptoms among juvenile offenders in detention. *Journal of the American Academy of Child & Adolescent Psychiatry* 43(4):430–439.

Centers for Disease Control and Prevention. 2013. Injury Prevention & Control: Web-based Injury Statistics Query

and Reporting System. Available online: www.cdc.gov/injury/wisqars/index.html.

Clum, G.A., and Curtin, L. 1993. Validity and reactivity of a system of self-monitoring suicide ideation. *Journal of Psychopathology and Behavioral Assessment* 15(4):375–385.

Crouch, J.L., Hanson, R.F., Saunders, B.E., Kilpatrick, D.G., and Resnick, H.S. 2000. Income, race/ethnicity, and exposure to violence in youth: Results from the National Survey of Adolescents. *Journal of Community Psychology* 28(6):625–641.

Esposito, C.L., and Clum, G.A. 1999. Specificity of depression symptoms and suicidality in a juvenile delinquent population. *Journal of Psychopathology and Behavioral Assessment* 21(2):171–182.

Esposito, C.L., and Clum, G.A. 2002. Social support and problem-solving as moderators of the relationship between childhood abuse and suicidality: Applications to a delinquent population. *Journal of Traumatic Stress* 15(2):137–146.

Evans, W., Albers, E., Macari, D., and Mason, A. 1996. Suicide ideation, attempts and abuse among incarcerated gang and nongang delinquents. *Child and Adolescent Social Work Journal* 13(2):115–126.

Flannery, D.J., Singer, M.I., and Wester, K. 2001. Violence exposure, psychological trauma, and suicide risk in a community sample of dangerously violent adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry* 40(4):435–442.

Foley, D.L., Goldston, D.B., Costello, E.J., and Angold, A. 2006. Proximal psychiatric risk factors for suicidality in youth: The Great Smoky Mountains Study. *Archives of General Psychiatry* 63(9):1017–1024.

- Gallagher, C.A., and Dobrin, A. 2005. The association between suicide screening practices and attempts requiring emergency care in juvenile justice facilities. *Journal of the American Academy of Child & Adolescent Psychiatry* 44(5):477–484.
- Gallagher, C.A., and Dobrin, A. 2006. Deaths in juvenile justice residential facilities. *Journal of Adolescent Health* 38(6):662–668.
- Goldstein, N.E., Arnold, D.H., Weil, J., Mesiarik, C.M., Peuschold, D., Grisso, T., and Osman, D. 2003. Comorbid symptom patterns in female juvenile offenders. *International Journal of Law and Psychiatry* 26(5):565–582.
- Gould, M.S., Greenberg, T., Velting, D.M., and Shaffer, D. 2003. Youth suicide risk and preventive interventions: A review of the past 10 years. *Journal of the American Academy of Child & Adolescent Psychiatry* 42(4):386–405.
- Gould, M.S., King, R., Greenwald, S., Fisher, P., Schwab-Stone, M., Kramer, R., Flisher, A.J., Goodman, S., Canino, G., and Shaffer, D. 1998. Psychopathology associated with suicidal ideation and attempts among children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry* 37(9):915–923.
- Grunbaum, J.A., Kann, L., Kinchen, S., Ross, J., Hawkins, J., Lowry, R., Harris, W.A., McManus, T., Chyen, D., and Collins, J. 2004. Youth risk behavior surveillance—United States, 2003. *Morbidity and Mortality Weekly Report* 53:1–96.
- Hayes, L.M. 2004. *Juvenile Suicide in Confinement: A National Survey*. Mansfield, MA: National Center on Institutions and Alternatives.
- Hockenberry, S., Sickmund, M., and Sladky, A. 2013. *Juvenile Residential Facility Census, 2010: Selected Findings*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Holsinger, K., and Holsinger, A.M. 2005. Differential pathways to violence and self-injurious behavior: African American and white girls in the juvenile justice system. *Journal of Research in Crime and Delinquency* 42(2):211–242.
- Johnson, J.G., Cohen, P., Gould, M.S., Kasen, S., Brown, J., and Brook, J.S. 2002. Childhood adversities, interpersonal difficulties, and risk for suicide attempts during late adolescence and early adulthood. *Archives of General Psychiatry* 59:741–749.
- Kaplan, M.L., Asnis, G.M., Sanderson, W.C., Keswani, L., de Lecuona, J.M., and Joseph, S. 1994. Suicide assessment: Clinical interview vs. self-report. *Journal of Clinical Psychology* 50(2):294–298.
- Kessler, R.C., Borges, G., and Walters, E.E. 1999. Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. *Archives of General Psychiatry* 56(7):617–626.
- Klimes-Dougan, B. 1998. Screening for suicidal ideation in children and adolescents: Methodological considerations. *Journal of Adolescence* 21(4):435–444.
- Levine, S., Ancill, R.J., and Roberts, A.P. 1989. Assessment of suicide risk by computer-delivered self-rating questionnaire: Preliminary findings. *Acta Psychiatrica Scandinavica* 80(3):216–220.
- Lewinsohn, P.M., Rohde, P., and Seeley, J.R. 1996. Adolescent suicidal ideation and attempts: Prevalence, risk factors, and clinical implications. *Clinical Psychology: Science and Practice* 3(1):25–46.
- Lindsay, M., and Lester, D. 2004. *Suicide-by-Cop: Committing Suicide by Provoking Police to Shoot You*. Amityville, NY: Baywood Publishing.
- Marcus, P., and Alcabes, P. 1993. Characteristics of suicides by inmates in an urban jail. *Hospital and Community Psychiatry* 44(3):256–261.
- Memory, J.M. 1989. Juvenile suicides in secure detention facilities: Correction of published rates. *Death Studies* 13(5):455–463.
- Morris, R.E., Harrison, E.A., Knox, G.W., Tromanhauser, E., Marquis, D.K., and Watts, L.L. 1995. Health risk behavioral survey from 39 juvenile correctional facilities in the United States. *Journal of Adolescent Health* 17(6):334–344.
- National Center for Health Statistics. 2004. *Health, United States, 2004: With Chartbook on Trends in the Health of Americans*. Hyattsville, MD: U.S. Department of Health and Human Services.
- Parent, D.G., Leiter, V., Kennedy, S., Livens, L., Wentworth, D., and Wilcox, S. 1994. *Conditions of Confinement: Juvenile Detention and Corrections Facilities*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Pastore, A.L., and Maguire, K. 2000. *Sourcebook of Criminal Justice Statistics—1999*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- Penn, J.V., Esposito, C.L., Schaeffer, L.E., Fritz, G.K., and Spirito, A. 2003. Suicide attempts and self-mutilative behavior in a juvenile correctional facility. *Journal of the American Academy of Child & Adolescent Psychiatry* 42(7):762–769.

- Pogrebin, M. 1985. Jail and the mentally disordered: The need for mental health services. *Journal of Prison and Jail Health* 5(1):13–19.
- Reynolds, W.M. 1988. *Suicidal Ideation Questionnaire: Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Reynolds, W.M. 1990. Development of a semistructured clinical interview for suicidal behaviors in adolescents. *Psychological Assessment* 2(4):382–390.
- Roberts, R.E., and Chen, Y.W. 1995. Depressive symptoms and suicidal ideation among Mexican-origin and Anglo adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry* 34(1):81–90.
- Roberts, R.E., Chen, Y.R., and Roberts, C.R. 1997. Ethnocultural differences in prevalence of adolescent suicidal behaviors. *Suicide and Life-Threatening Behavior* 27(2):208–217.
- Rohde, P., Mace, D.E., and Seeley, J.R. 1997. The association of psychiatric disorders with suicide attempts in a juvenile delinquent sample. *Criminal Behaviour and Mental Health* 7(3):187–200.
- Rohde, P., Seeley, J.R., and Mace, D.E. 1997. Correlates of suicidal behavior in a juvenile detention population. *Suicide and Life-Threatening Behavior* 27(2):164–175.
- Sanislow, C.A., Grilo, C.M., Fehon, D.C., Axelrod, S.R., and McGlashan, T.H. 2003. Correlates of suicide risk in juvenile detainees and adolescent inpatients. *Journal of the American Academy of Child & Adolescent Psychiatry* 42(2):234–240.
- Sen, B. 2004. Adolescent propensity for depressed mood and help seeking: Race and sex differences. *Journal of Mental Health Policy and Economics* 7(3):133–145.
- Shaffer, D., Fisher, P., Dulcan, M.K., and Davies, M. 1996. The NIMH Diagnostic Interview Schedule for Children Version 2.3 (DISC-2.3): Description, acceptability, prevalence rates, and performance in the MECA study. *Journal of the American Academy of Child & Adolescent Psychiatry* 35(7):865–877.
- Shelton, D. 2000. Health status of young offenders and their families. *Journal of Nursing Scholarship* 32(2):173–178.
- Snyder, H.N., and Sickmund, M. 2006. *Juvenile Offenders and Victims: 2006 National Report*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Teplin, L.A., Abram, K.M., McClelland, G.M., Dulcan, M.K., and Mericle, A.A. 2002. Psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry* 59(12):1133–1143.
- Teplin, L.A., McClelland, G.M., Abram, K.M., and Mileusnic, D. 2005. Early violent death among delinquent youth: A prospective longitudinal study. *Pediatrics* 115(6):1586–1593.
- Thompson, M.P., Kingree, J.B., and Ho, C.H. 2006. Associations between delinquency and suicidal behaviors in a nationally representative sample of adolescents. *Suicide and Life-Threatening Behavior* 36(1):57–64.
- Tortolero, S.R., and Roberts, R.E. 2001. Differences in non-fatal suicide behaviors among Mexican and European American middle school children. *Suicide and Life-Threatening Behavior* 31(2):214–223.
- U.S. Census Bureau. 2001. *The Hispanic Population*. Washington, DC: U.S. Department of Commerce.
- U.S. Census Bureau. 2010. Race and Hispanic or Latino Origin: 2010. 2010 Census Summary File 1. Washington, DC: U.S. Department of Commerce. Available online: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_SF1_QTP3.
- Viboch, M. 2005. *Childhood Loss and Behavioral Problems: Loosening the Links*. New York, NY: Vera Institute of Justice.
- Wasserman, G.A., Jensen, P.S., Ko, S.J., Coccozza, J., Trupin, E., Angold, A., Cauffman, E., and Grisso, T. 2003. Mental health assessments in juvenile justice: Report on the Consensus Conference. *Journal of the American Academy of Child & Adolescent Psychiatry* 42(7):751–761.
- Wasserman, G.A., and McReynolds, L.S. 2006. Suicide risk at juvenile justice intake. *Suicide and Life-Threatening Behavior* 36(2):239–249.
- Wasserman, G.A., McReynolds, L.S., Lucas, C.P., Fisher, P., and Santos, L. 2002. The voice DISC-IV with incarcerated male youth: Prevalence of disorder. *Journal of the American Academy of Child & Adolescent Psychiatry* 41(3):314–321.
- Zayas, L.H., Lester, R.J., Cabassa, L.J., and Fortuna, L.R. 2005. Why do so many Latina teens attempt suicide? A conceptual model for research. *American Journal of Orthopsychiatry* 75(2):275–287.
- Zimmerman, J.K. 1991. Crossing the desert alone: An etiological model of female adolescent suicidality. In *Women, Girls, and Psychotherapy*, edited by C. Gilligan, A.G. Rogers, and D.L. Tolman. New York, NY: Haworth Press, pp. 223–240.

U.S. Department of Justice

Office of Justice Programs

Office of Juvenile Justice and Delinquency Prevention

Washington, DC 20531

Official Business

Penalty for Private Use \$300



PRESORTED STANDARD
POSTAGE & FEES PAID
DOJ/OJJDP
PERMIT NO. G-91

Acknowledgments

Karen M. Abram, Ph.D., is Associate Professor and Associate Director, Health Disparities and Public Policy, in the Department of Psychiatry and Behavioral Sciences at the Feinberg School of Medicine, Northwestern University, Chicago, IL.

Jeanne Y. Choc, Ph.D., is a psychologist affiliated with the Department of Psychiatry and Behavioral Sciences at the Feinberg School of Medicine.

Jason J. Washburn, Ph.D., ABPP, is Assistant Professor and Director of Education and Clinical Training in the Division of Psychology, Department of Psychiatry and Behavioral Sciences at the Feinberg School of Medicine. He is also Director of the Center for Evidence-Based Practice at Alexian Brothers Behavioral Health Hospital, Hoffman Estates, IL.

Linda A. Teplin, Ph.D., is the Owen L. Coon Professor and Vice Chair for Research in the Department of Psychiatry and Behavioral Sciences at the Feinberg School of Medicine, as well as Director of the Department's Program in Health Disparities and Public Policy.

Devon C. King, Ph.D., is a psychologist practicing in Bethesda, MD, as well as Assistant Professor of Clinical Psychology at the Center for Professional Psychology, George Washington University.

Mina K. Dulcan, M.D., is a Professor in both the Department of Psychiatry and Behavioral Sciences and the Department of Pediatrics at the Feinberg School of Medicine. She is also the Head of the Department of Child and Adolescent Psychiatry at the Ann & Robert H. Lurie Children's Hospital of Chicago.

Elena D. Bassett, Ph.D., is a psychology postdoctoral fellow in Psychosocial Rehabilitation & Recovery Oriented Services at the VA Palo Alto Healthcare System, Palo Alto, CA.

The authors thank all of their agencies for their collaborative spirit and steadfast support. They also thank the research participants for their time and willingness to participate as well as the Cook County Juvenile Temporary Detention Center, Cook County Department of Corrections, and Illinois Department of Corrections for their cooperation.

The research described in this bulletin was supported under grant numbers 1999-JE-FX-1001, 2005-JL-FX-0288, and 2008-JF-FX-0068 from the Office of Juvenile Justice and Delinquency Prevention (OJJDP), U.S. Department of Justice.

Points of view or opinions expressed in this document are those of the authors and do not necessarily represent the official position or policies of OJJDP or the U.S. Department of Justice.

The Office of Juvenile Justice and Delinquency Prevention is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance; the Bureau of Justice Statistics; the National Institute of Justice; the Office for Victims of Crime; and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking.