Correlates and Predictors of Self-Reported Suicide Attempts Among Incarcerated Youths
Aldis L. Putnins

Int J Offender Ther Comp Criminol 2005 49: 143
DOI: 10.1177/0306624X04269412

The online version of this article can be found at:
http://ijo.sagepub.com/content/49/2/143

Published by:

SAGE

http://www.sagepublications.com

Additional services and information for International Journal of Offender Therapy and Comparative Criminology can be found at:

Email Alerts: http://ijo.sagepub.com/cgi/alerts

Subscriptions: http://ijo.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

Citations: http://ijo.sagepub.com/content/49/2/143.refs.html

>> Version of Record - Mar 3, 2005

What is This?
Correlates and Predictors of Self-Reported Suicide Attempts Among Incarcerated Youths

Aldis L. Putniņš

Abstract: The correlates and predictors of suicidal behaviors among 900 young offenders in detention centers in South Australia are investigated. That young offenders are a high-risk population is confirmed, with a quarter of the youths reporting recent suicidal ideation and more than a quarter reporting having made a suicide attempt. Past suicide attempts are significantly predictive of future suicide attempts. Other variables both concurrently and prospectively associated with suicidal behaviors (even after controlling for prior suicide attempt status) are substance use, prolonged dysphoric mood, attention deficit hyperactivity disorder signs, and having a bad temper. These variables not only have predictive value but should also be considered as appropriate targets when intervening to reduce suicide risk. It is suggested that impulsiveness is an underlying common factor.

Keywords: suicide; prediction; young offenders; ADHD

Although criminogenic needs and risks are important considerations in assessments and interventions with juvenile detainees, a duty of care means that more general needs cannot be ignored, particularly those relating to health and safety. For this reason, suicide prevention is high on the priority list of most agencies that deal with incarcerated young offenders. This concern is accentuated by the fact that various suicide risk factors are more prevalent among young offenders than among the general youth population. Psychoactive substance abuse has been identified as a high risk factor for suicidal behavior among adolescents (Runeson, 1990). Conduct disorder and antisocial behavior are also often found among young suicide attempters and suicide victims (Brent et al., 1993; Slaby & McGuire, 1989). Conduct disorder, substance use, and antisocial behavior clearly occur more frequently among young offenders than nonoffenders. This suggests that young offenders can be expected to be at increased risk of suicidal behavior. Confirmation of increased suicide risk has been obtained in a number of studies. In Utah, 63% of all youth suicide completers were found to have had contact with the juvenile justice system (Gray et al., 2002). Elsewhere in North America, stud-
ies of incarcerated youths (Penn, Esposito, Schaffer, Fritz, & Spirito, 2003; Rohde, Seeley, & Mace, 1997) have found a higher prevalence of suicide attempts than those reported for high school students (Andrews & Lewinsohn, 1992; Velez & Cohen, 1988). A similar picture emerges in Australia when comparing rates for incarcerated youths (Fasher, Dunbar, Rothenbury, Bebb, & Young, 1997; Howard, Copeland, Nicholas, & Karacanta, 2001; Putninš, 1995) with the prevalence among young people in the general population (Keys Young, 1997).

Many suicide attempts are impulsive. Simon et al. (2001) found that among adolescent and young adult suicide attempters, 24% spent less than 5 minutes between the decision to kill themselves and making the attempt. An increased risk of impulsive suicide among those who had been in a physical fight was also noted. The authors concluded that inadequate control of aggressive impulses was likely to be a major risk factor for impulsive suicide attempts. Other studies have also found that aggressive behavior and impulsivity both confer vulnerability for suicide (Brent et al., 2003; Conner et al., 2001; Plutchik & van Praag, 1995). There is strong empirical support for the proposition that low self-control, of which impulsivity is a core feature, is related to crime and other antisocial behaviors (Pratt & Cullen, 2000). Offenders can, therefore, generally be expected to be more impulsive than nonoffenders. This is likely to be one of the factors that contribute to their increased risk for suicidal behaviors.

Depression is frequently encountered among incarcerated youths (Domalanta, Risser, Roberts, & Risser, 2003). Its relationship with youth suicide is well established (Gould, Greenberg, Velting, & Shaffer, 2003). Less clear and less researched is the relationship between attention deficit hyperactivity disorder (ADHD) and suicidal behavior. Brent et al. (1993) failed to find a difference in the incidence of ADHD between suicide completers (based on postmortem assessments) and matched community controls. Renaud, Brent, and Birmaher (1999) also failed to find significant differences in ADHD prevalence between adolescent suicide completers and community controls. However, their study had only 18 control subjects and restricted variation to all subjects being selected for having disruptive disorders, which includes ADHD. In contrast, Weiss and Hechtman (1993) reported higher rates of suicide attempts in a cohort of ADHD diagnosed children followed through into adulthood. A recent study in Russia of incarcerated male young offenders with conduct disorder diagnoses found a significantly higher prevalence of ADHD among both suicide ideators and attempters than among nonsuicidal youths (Ruchkin, Schwab-Stone, Koposov, Vermeiren, & King, 2003). In an investigation of hospitalized youths who had recently made suicide attempts, only the high lethality group contained a number of individuals with diagnoses of major depressive episodes and comorbid ADHD (Nasser & Overholser, 1999). Although the results suggested that ADHD might increase the risk of more serious attempts, this trend was not statistically significant. More compelling is an analysis of a very large managed health care database in the United States (Swensen, Kruesi, Allen, Beusching, & Secnik, 2002). Suicide attempts were found to occur significantly more often among patients with
an ADHD diagnosis compared to control subjects, even after the effects of substance use and depression were controlled for. As increased impulsiveness is a feature of both the combined and predominantly impulsive and hyperactive types of ADHD and as ADHD is frequently comorbid with mood disorders and conduct disorder, it would be surprising if there was not a relationship between ADHD and suicidal behaviors. However, the evidence to date is very limited.

Kosky and Lawlor (1992) estimated that approximately 1 in every 100 juvenile inmates whose stays were longer than 7 days made a serious suicide attempt during their stay. The need for risk appraisal and continuous vigilance by staff while youths are in secure care is obvious. The risk for many youths continues to be high after they have been released into the community, prompting suggestions for more comprehensive postrelease planning and support in the community for those at increased risk (Howard, Lennings, & Copeland, 2003).

The aim of this study is to examine, by analyzing data gained from a routinely administered psychosocial screening assessment, the correlates and predictors of suicidal behaviors among incarcerated South Australian young offenders. Although a number of previous studies of incarcerated youths have examined the concurrent correlates of suicidal behaviors, few have examined prospective predictive relationships, and none are known to have examined the prospective relationships of ADHD behaviors and suicide risk. These are a particular focus of the current study.

METHOD

PARTICIPANTS AND PROCEDURE

Most youths admitted for a week or longer to South Australia’s two detention centers for young offenders undergo a routine screening assessment. The participants were the first 900 youths to complete the screening procedure (904 were approached). Of these youths, 206 were reassessed (207 were approached) when readmitted to secure care. Readmitted youths are normally assessed again if more than 12 months have elapsed since their last assessment, though some were reassessed sooner.

MEASURE

The assessment instrument was the Secure Care Psychosocial Screening (SECAPS; Putninš, 1999). This is a standardized assessment that covers a variety of background information and needs. The assessments are carried out individually by youth workers, social workers, or psychologists and take about 30 minutes to complete. Participants with poor literacy skills are assisted with reading and writing when necessary. Detailed results using this instrument with the current sample have been published elsewhere (Thompson & Putninš, 2003). Items con-
considered here include self-reports about the frequencies of use of various substances (viz., alcohol, marijuana, hallucinogens, sedatives and hypnotics, opiates, stimulants, inhalants) during the month immediately prior to their placement in secure care. Frequencies of use are indicated on a five-point scale (1 = none, 5 = daily). The sum of the use frequencies forms a substance-use scale that, with the offenders assessed here, has an internal consistency (alpha) of .63 \((n = 897)\). Other substance-use items ask about any previous intravenous substance use and whether the respondents feel that they have a problem with substance use. Items relating to ADHD signs inquire about difficulty with concentration, difficulty sitting still, impulsiveness, and difficulty coping with boredom. These are summed to form an ADHD scale, with an internal consistency of .58 \((n = 896)\). Data collected earlier from a sample of high school students yielded an alpha of .68 \((n = 129)\) for this scale. Supplementary analysis of data from Bickel and Campbell’s \((2002)\) study of incarcerated young offenders found that the SECAPS ADHD Signs Scale and the Adolescent Psychopathology Scale’s ADHD measure \((Reynolds, 1998)\) had a correlation of .52 \((n = 41, p < .000)\). This is a moderately strong association and supports the concurrent validity of the ADHD Signs Scale.

Conduct problem items ask about school expulsions and suspensions, regular truancy when enrolled at school, frequency of fighting, bad temper, and delinquent friends. These are summed to form a conduct problems scale (for young offenders, alpha = .47, \(n = 899\); for high school students, alpha = .71, \(n = 132\)). Self-harming is assessed by items about whether the respondent has ever attempted suicide, recency of last attempt, and recent suicidal ideation. Mood is rated on a 0-to-10-point scale \((0 = worst\ feeling\ possible, 10 = best\ feeling\ possible)\). A further item asks about how long the current mood state has been experienced. Related items enquire about the number of close friends, how well they get on with others, and feelings of hopelessness or despair about their future. The mood, hopelessness, number of friends, and getting on with others items were summed (after adjusting the score ranges to make them comparable) to form a depression scale (alpha = .41, \(n = 891\)).

Adjudicated offending histories were available for the first 458 youths assessed.

RESULTS

Of the 900 youths initially assessed, 90% were males, and 27% identified themselves as being Aboriginal. Ages ranged from 11 to 20, with most participants (82%) falling within the 14 to 17 age range. Those who were 18 years or older were all incarcerated for offences committed before they turned 18. Of the 206 youths who completed a second assessment, 92% were males, and 31% identified themselves as being Aboriginal. Ages ranged from 12 to 19, with most participants (85%) falling within the 15 to 18 age range.
Previous suicide attempts and recent suicidal ideation were both reported by a little more than a quarter of all participants at both the first and second assessments (see Table 1). There was little difference in the frequencies reported at the two assessments and little difference on these items between Aboriginal and non-Aboriginal youths. At the first assessment, females significantly more often reported previous suicide attempts ($\chi^2 = 22.93, \text{df} = 1, p < .001$) and current suicidal ideation ($\chi^2 = 16.98, \text{df} = 1, p < .001$) than did the male participants and approximately twice as often. No analyses by gender of the second assessment data were undertaken because of the small number of females ($n = 16$) in that group.

There was some inconsistency in the reporting of suicide attempts. Some who at the first assessment acknowledged making an attempt denied any previous attempts at the later assessment. Among the reassessed youths, 45 had earlier reported making suicide attempts. Of these, 38% denied any previous attempts when asked the same question at their second assessments.

Among those who reported making suicide attempts, 50.6% and 34.8% (first and second assessments, respectively) made an attempt during the 6 months prior to being assessed.

Suicidal ideation and previous suicide attempts were significantly associated at both assessments ($r = .48, n = 897, p < .001$, and $r = .53, n = 205, p < .001$). The strong empirical and conceptual associations between these items justify combining them to form a suicidality index (SI). These items are at the core of what is likely to alert assessors to increased risk of attempting suicide. The SI was unrelated to age at either assessment ($r = -.01, n = 897$, and $r = -.03, n = 205$).

Concurrent relationships with the SI are presented in Table 2. The directions and magnitudes of most associations with suicidality were very similar for males...
<table>
<thead>
<tr>
<th></th>
<th>Number of Prior Offenses</th>
<th>Substance-Use Frequency</th>
<th>Problem Substance Use</th>
<th>Has Injected³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depression</td>
<td>Bad Temper</td>
<td>Conduct</td>
<td>ADHD</td>
</tr>
<tr>
<td>First assessment⁶</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>−.06</td>
<td>.18***</td>
<td>.16***</td>
<td>.21***</td>
</tr>
<tr>
<td>Females</td>
<td>.09</td>
<td>.22*</td>
<td>.32**</td>
<td>.21*</td>
</tr>
<tr>
<td>All</td>
<td>−.06</td>
<td>.19***</td>
<td>.17***</td>
<td>.21***</td>
</tr>
<tr>
<td>Second assessment⁶</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>.13</td>
<td>.32***</td>
<td>.23***</td>
<td>.27***</td>
</tr>
</tbody>
</table>

**NOTE:** ADHD = attention deficit hyperactivity disorder.

a. This item was later added to the Secure Care Psychosocial Screening, hence the reduced participant numbers.
b. For males, n = 200 for has injected, n = 414 for number of prior offences, and n = 807 to 812 for other items. For females, n = 24 for has injected, n = 40 for number of prior offences, and n = 84 to 85 for other items.
c. For all, n = 57 for has injected, n = 139 for number of prior offences, and n = 204 to 205 for other items.

* p ≤ .05. ** p ≤ .01. *** p ≤ .001.
and females. Various indicators of problem substance use (higher use frequencies of multiple substances, self-reported problem use, intravenous substance use) were associated with suicidality, as were measures of conduct problems, ADHD signs, and depression. The number of prior adjudicated offences was not significantly associated with suicidality in any group.

Although the conduct problems measure was significantly associated with suicidality at both assessments, inspection of the results of the individual items that made up the conduct measure indicates that reporting having a bad temper was as closely related with concurrent suicidality as was the composite conduct variable.

The prediction of suicide attempts was examined only among those youths who at the first assessment denied any previous suicide attempts. In this group, those who reported a suicide attempt at the second assessment can be presumed to have made the attempt some time after the first assessment. This removes the influence that differences in prior attempted suicide status (and its concurrent associations with the predictor variables) might have on the predicted outcome. Only assessments that were 6 months or more apart were considered. Time between assessments ranged from 6 months to 4 years, with a mean time of 1.53 years. The relationships between variables measured at the first assessment and subsequent attempted suicide status are presented in Table 3. Neither depression scores nor suicidal ideation at the first assessment significantly predicted later attempted suicide status. This held for each depression index item when examined separately. Adding the suicidal ideation item to the depression index increased the internal consistency (alpha) of the depression measure from .41 to .48, though this revised index did not significantly predict reports of later suicide attempts ($r = .10, n = 145, p = .22$). Although rated mood by itself was not a significant predictor, a closer examination revealed that the length of time that low mood (i.e., 3 or less on a 0-to-10 scale) was experienced was significantly associated with subsequent suicide status. Among those who experienced low mood for no more than a few days, 14% subsequently reported a suicide attempt, whereas 55% of those who experienced such mood for a few weeks or more reported a subsequent suicide attempt, a statistically significant difference ($\chi^2 = 5.70, df = 1, p = .02$). A dichotomized mood by time variable (prolonged low mood vs. other) measured at the first assessment among those who initially denied prior attempts had a significant correlation with attempted suicide status at the second assessment ($r = .20, n = 145, p = .02$).

Conduct problems were significantly predictive of suicide status. As with concurrent relationships with suicidality, bad temper alone was as strong a predictor as was the composite conduct measure (of which bad temper is a component). The number of prior offences was unrelated to future suicide attempts in this sample. ADHD signs and substance-use frequency were both significantly predictive, though acknowledging having a problem with substance use was not.

The question of whether combining the significant predictors of future suicide attempt status might help improve the identification of youths at risk
### TABLE 3
PREDICTIVE RELATIONSHIPS ($r$) BETWEEN FIRST ASSESSMENT MEASURES AND ATTEMPTED SUICIDE STATUS AT THE SECOND ASSESSMENT

<table>
<thead>
<tr>
<th>Number of Prior Offenses</th>
<th>Depression</th>
<th>Bad Temper</th>
<th>Conduct</th>
<th>ADHD</th>
<th>Substance Use Frequency</th>
<th>Problem Substance Use</th>
<th>Suicidal Ideation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempted suicide</td>
<td>.05</td>
<td>.03</td>
<td>.18*</td>
<td>.16*</td>
<td>.17*</td>
<td>.20*</td>
<td>.09</td>
</tr>
</tbody>
</table>

**NOTE:** Only participants who denied any previous suicide attempts in their first assessment were included. As the item has injected was later added to the Secure Care Psychosocial Screening, few first-assessment youths who responded to this item had as yet completed a second SECAPS assessment, thus precluding its inclusion in this table. For the item number of prior offenses, $n = 110$; for all other items, $n = 144$ to 145.

*p ≤ .05.*
of suicide attempts was considered. As the conduct problems measure was no more strongly predictive than its component item bad temper and as the conduct measure was no longer significantly predictive once bad temper was removed from the measure, the conduct measure was not included in the predictive index. The remaining variables that had significant bivariate relationships with future suicide attempts (all were of similar strength with correlations between .17 and .20) were substance-use frequency, ADHD signs, bad temper, and the dichotomized mood variable (i.e., prolonged low mood vs. other). The predictive index was the sum of all the items, after adjusting the individual variable score ranges to make them approximately equal. A moderately strong and highly significant relationship between this index (calculated at the first assessment) with suicide attempt status at the second assessment was obtained \((r = .36, n = 183, p < .001)\). After controlling for initial suicide status by considering only those who at the first assessment reported no prior attempts, a slightly reduced, but nevertheless highly significant, predictive relationship between the index and later suicide attempt status was obtained \((r = .28, n = 144, p < .001)\). The Receiver Operating Characteristic Area Under the Curve value was .70 (95% confidence interval = .60 to .79). The ability of past suicide attempt status to predict future suicide attempt status was examined. The predicted outcome was whether a suicide attempt was made within 6 months prior to the second assessment (i.e., few days, few weeks, or few months responses) among those who had 6 months or more between their first and second assessments. (When an attempt was more than half a year ago, it was not possible to know whether the attempt occurred before or after the first assessment.) A significant relationship was found \((r = .39, n = 144, p < .001)\) between first assessment suicide attempt status and reports of recent suicide attempts at the second assessment. With this same subgroup and outcome, the previously described four-item suicide attempt prediction index had a correlation of .37 \((n = 142, p < .001)\). Adding first assessment suicide attempt status to the prediction index (after adjusting this item’s scores to a similar range to the other variables) increased the index’s correlation with recent suicide attempt status to .43 \((n = 142, p < .001)\).

**DISCUSSION**

Consistent with most previous studies, the young offenders assessed here reported a prevalence of suicide attempts that was considerably higher (approximately four times) than the general youth population rate (estimated at about 7% for Australian youths and young adults; Keys Young, 1997). This confirms that they should be regarded as a high-risk population. A quarter of the young offenders also reported having recently thought about suicide. However, thoughts about killing oneself appear to be quite common among adolescents (Zubrick et al., 1995), which diminishes their power to predict suicide attempts.
Marked gender differences in suicidal behavior were found among the young offenders, which is consistent with findings elsewhere that females are more likely to make suicide attempts and to think about suicide, despite completed suicide being more common among males (Wichstrøm & Rossow, 2002).

Recall of suicide attempts showed some variability between assessments. This was not altogether unexpected. Particularly if a suicide attempt is of low lethality, with time, its salience diminishes, and some will either forget or reinterpret the event (Klimes-Dougan, 1998).

A concurrent, but not a predictive, association between suicidality and the depression scale was found. Further analysis, however, revealed that although dysphoria (3 or less on a 0-to-10-point scale) at the first assessment was reported by 33% of the respondents, most (55%) reported experiencing such a mood for no more than a few days. For many, their dysphoria is transitory. Although estimates vary, dysphoria has been found to be quite common among adolescents (Compas, Ey, & Grant, 1993), which is why on its own, it is a poor indicator of suicide risk, despite depression being the single most frequent concomitant of suicidal behavior (Allen, 1987). The time that low mood is experienced is an important additional factor. In the current sample, those who reported experiencing low mood for some weeks or longer were more likely to subsequently report suicide attempts. It is possible that those who reported more prolonged low mood either tended to subsequently experience low mood more often or tended to have a qualitatively different form of dysphoria, perhaps with stronger biological involvement than those with shorter episodes. This has implications for the management of long-term suicide attempt risk among youths who report extended periods of low mood. In addition to managing immediate risk by steps such as close monitoring and social support, they might require further assessment to consider the need for medication, psychological treatment, and postrelease support.

The findings in this study confirm that substance use is associated with suicidal behavior. Substance-use frequency, self-reported problem use, and injecting use were all significantly related to concurrent suicidality. Although the predictive validity of injecting use could not be tested because of a lack of data, substance-use frequency was found to significantly predict future suicide attempt status. Self-reported problem use was not significantly predictive. The reason is likely to be the low temporal stability of this measure ($r = .11$ between first and second assessments). However, the frequency of use of a variety of substances was significantly associated with subsequent suicide attempts. Although imperfect on its own (as are all single variables), substance use must be included in any assessment of adolescents, particularly delinquent, suicide risk.

Young offenders as a group are at increased risk for antisocial behaviors, suicidal behaviors, and substance use and misuse. Although contextual and other external factors are important determinants of each of these behaviors, impulsivity is also known to be associated with each. This common association is likely to be one of the links that helps account for their apparent covariation. Impulsive individuals tend to act, often in extreme ways, on momentary thoughts
and emotions. Lack of foresight, the ignoring of long-term consequences and undeliberated risk taking are all aspects of impulsiveness. Impaired self-control is another possible description of such behaviors. A number of authors (Allen, 1987; Miller, Chiles, & Barnes, 1982; Slaby & McGuire, 1989) have commented on the element of impulsivity that characterizes many adolescent suicides and attempted suicides. Although depression or dysphoric mood is perhaps the most frequently encountered precursor of suicidal behavior, the majority of depressed or dysphoric people do not make suicide attempts. It is suggested here that those who are also impulsive are at greater risk of acting on their dysphoric mood. Impulsivity has been described as one of the universal personality-behavioral correlates of delinquency (Ellis, 1987) and has been found to account for a substantial portion of the variance of delinquent behavior (Rigby, Max, & Slee, 1989). Disinhibition or increased impulsivity is an immediate short-term effect of many substances. Many youths who die by suicide have been found at post-mortem to have high levels of alcohol and illicit drugs (Hillman, Silburn, Green, & Zubrick, 2000). This highlights both the need to consider substance abuse in all clinical assessments of suicidal behaviors and the need for effective substance-use treatment programs as one of the strategies for combating these behaviors.

Children and youths with ADHD, a prominent feature of which is impulsiveness, are also at a greater risk for antisocial behavior, conduct disorder, and substance abuse (Henker & Whalen, 1989; Pratt, Cullen, Blevins, Daigle, & Unnever, 2002). The effects of impulsiveness are not restricted to adolescents. O’Boyle and Brandon (1998) support the view that among adult substance abusers, impulsivity is a core feature that leads to multiple substance use, more severe addiction, and suicide attempts. Consistent with this, significant concurrent and longitudinal associations between suicidality and ADHD signs were found among the incarcerated youths investigated here. Although the correlation between ADHD signs and subsequent attempted suicide status is not particularly strong, it is clinically meaningful. Among those who at their first assessment denied a previous suicide attempt, 7.7% of the participants who reported no more than one ADHD sign (n = 39) reported a prior suicide attempt at the second assessment. This contrasts with 31.4% of those with two or more signs (n = 105) subsequently reporting a suicide attempt—a threefold increase. In addition to being a marker for increased risk of attempting suicide, ADHD might be a causal factor. As already noted, impulsivity (one of the core symptoms of ADHD) is often a feature of participants who either attempt or commit suicide. Impulsive individuals are inclined to immediate reaction and gratification rather than reflection and the inhibition of inappropriate responses. Many suicide attempts, particularly by youths, follow a very short contemplation of the act and are therefore often impulsive in nature. Impulsivity is likely, in conjunction with other factors, to contribute to many suicide attempts among young offenders. As persons who are high on ADHD signs can be expected to also be more impulsive, then ADHD, if present, should be considered an appropriate treatment target to reduce the risk of suicidal behavior among at-risk individuals. This is a particularly relevant consideration with young offend-
ers as, because of the high comorbidity of conduct disorder and ADHD, many youths in secure care have been found to have ADHD (Bickel & Campbell, 2002; Teplin, Abram, McClelland, Dulcan, & Mericle, 2002).

Reporting having a bad temper was associated here with increased risk of a later suicide attempt. Various forms and measures of aggressive behavior have been found to be significantly associated with increased sensation seeking and impulsivity (Joireman, Anderson, & Strathman, 2003), traits also frequently found among young offenders, youths with ADHD, and substance users. The irritability that characterizes a bad temper can also be a feature of children and adolescents with mood disorders. Some researchers have suggested that the treatment of impulsive aggression or the provision of violence prevention interventions might assist to reduce suicide risk (Brent et al., 2002; Conner et al., 2001). This is as yet untested. There have been few controlled studies of psychosocial interventions with suicidal youths, and no controlled studies of the use of anger management programs as an intervention have been reported in recent major reviews (Gould et al., 2003; Miller & Glinski, 2000). However, the consistent findings, both here and elsewhere, of a relationship between impulsive aggression and suicidal behavior strongly suggest that the use of anger management programs should be considered as part of a suicide risk management strategy with at-risk young offenders. As such programs are already available in many detention centers, extending their use to suicidal youths should not be difficult to implement.

In a recent review, Gould et al. (2003) identified past suicide attempts as one of the strongest predictors of completed youth suicide. The validity of using past suicide attempt status to predict future suicide attempts was confirmed here. A history of past attempts should always alert assessors to the need for further investigation of current suicide risk.

A limitation here is that no information about the lethality of suicide attempts was available. More items and information from collateral sources would likely have improved the validity and reliability of some of the measures. Although the results highlight various risk indicators and potential targets for intervention, it is not suggested that these alone should be used to estimate suicide risk. Contextual and other factors should also be considered in individual assessments.

CONCLUSION

Substantial proportions of the assessed youths reported past suicide attempts and recent thoughts about suicide. The validity of using past suicide attempts to identify youths at an increased risk for future attempts was confirmed. Other factors that were both concurrently and prospectively associated with suicidal behaviors (even after controlling for prior suicide attempt status) were substance use, prolonged dysphoric mood, ADHD signs, and having a bad temper. These factors not only have predictive value but should also be considered as appropriate targets when intervening to reduce suicide risk. It is suggested that one of the fac-
tors linking suicidal behavior, ADHD signs, substance use, and being bad tempered is impulsiveness. This trait is widespread among offenders and is likely to explain, at least in part, both the observed covariation of the aforementioned behaviors and why they are encountered more frequently in this group than in the general population. Interventions that help to reduce impulsiveness can be expected to help ameliorate these behaviors. Impulsiveness is a core symptom of some forms of ADHD. As ADHD signs appear to be related to increased risk of suicide attempts and as ADHD is usually a treatable disorder, it is suggested that if it is diagnosed, consideration should be given to including it as a target in the treatment plans of suicidal young offenders.

REFERENCES


Predictors of Suicide Attempts


Aldis L. Putninš
Chief Clinical Psychologist
Department for Families and Communities
2 Norton Summit Rd.
Magill SA 5072
Australia