

# COUNTY JAIL SUICIDES IN A MIDWESTERN STATE: MOVING BEYOND THE USE OF PROFILES

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*As part of a larger research project that evaluated individual and organizational units of analysis as related to jail suicides and suicide rates, this study addresses the problem of jail suicide and the current utilization of profiles as screening devices. Traditional profiles either overgeneralize to too broad of a population, are too small to offer conclusions beyond a case study, or lack distinction from the general jail population. This study examines inmate characteristics in relation to county jail suicides in a Midwestern state from 1980 through mid-1998. The concepts behind current profile application are refuted and yield to characteristics elicited through comparisons to the general, county-jail inmate populations. These factors distinguish inmates who committed suicide from inmates in the general jail population. The results demonstrate the need for local assessments and more stringent methods when developing screening tools. Implications for jail administrators, policies, and future research are discussed further.*

**Keywords:** jails; suicide; profiles

Suicide prevention in jails has relied, in part, on descriptive profiles drawn from a population of inmates who committed suicide, with limited comparisons to the general jail population (Kennedy & Homant, 1988). The small sample sizes inherent in suicide populations and the chronic problem of missing data inhibit comparisons to other populations and virtually forbid inferences to larger populations. This study examines inmate characteristics in relation to county jail suicides in a Midwestern state from 1980 through mid-1998 utilizing a nonequivalent comparison group. In addition, the study addresses the problematic nature of jail inmate profiles in identifying suicidal inmates.

The purpose of this study is to compare the suicide population to a sample of the general jail population, producing characteristics that discriminate between the two groups. Using statistical methods to compare the suicide

group to the general jail population provides information not available in typical descriptive profiles, enabling more efficient screening. The characteristics produced should reduce false positives and increase correct classifications. An introduction to the problem of jail suicide is followed by a review of the literature pertaining to profiles. Next, this study's variables, measurements, and methodology are described. A discussion of the results illuminates characteristics that discriminate between an inmate who committed suicide and the general jail population. The jurisdictional specificity of such characterizations is emphasized.

### **THE PROBLEM OF JAIL SUICIDE**

Jails are local institutions that detain a variety of inmates, ranging from a person held on delinquent child-support payments to a person confined for suspicion of murder (Kerle, 1998). The inmates bring with them physical and mental problems. In addition to the anxiety, uncertainty, and fear that typically accompany imprisonment, familial and economic stressors plague inmates as a result of both incarceration and the alleged offenses. Furthermore, newly admitted inmates might be under the influence of alcohol, drugs, or both. Within this tumultuous context, jail officers are charged with securing inmates from harming the public, keeping inmates from injuring one another or jail personnel, and protecting inmates from self-harm. To aid their efforts to prevent suicide, jail administrators often turn to profiles of suicidal inmates. Profiles, however, are restricted in their usefulness.

### **PREVIOUS RESEARCH**

#### **THE UTILIZATION OF PROFILES**

Inmate suicides continue to plague jail administrators. Determining the intent behind an often angry, intoxicated, or despondent inmate's verbal and physical actions can appear to be an exercise in futility. Suicide attempts, for example, are not always taken seriously by staff and are commonly considered manipulative actions (Haycock, 1989). Unfortunately, assumptions such as these might prove to be fatal. Haycock determined that there are few distinguishing characteristics between inmates who make near-lethal suicide attempts and those that attempt nonlethal methods of suicide. Danto (1973) further suggests that all threats of suicide must be taken seriously.

Reduced to descriptive data, several devices have been designed to assist jail personnel in determining an inmate's level of suicide risk, of which pro-

files provide the potential for relatively brief assessments during the crucial, yet often hectic, intake stage of incarceration. A profile is intended to function as an instrument—among many instruments available to jail personnel—to assist in determining if an inmate is a suicide risk (Hayes & Rowan, 1988). The use of profiles of jail suicide victims, however, has its critics.

Kennedy and Homant (1988) point to discrepancies among studies, and therefore profiles, creating problems when generalizing findings from jail to jail and from geographic area to geographic area. In addition, profiles that do not utilize a facility's general jail population as a comparison group often present a profile that represents the general jail population rather than a profile distinguishing suicidal inmates from that population. Furthermore, concern has been expressed about reliance on profiles when reliance might detract attention from other observed and recorded data that indicate suicide risk but that might not be included in the profile (Kennedy & Homant, 1988). This study attempts to address some of the issues concerning profiles and their relevance to the reduction of jail suicides. Later in the paper, implications for utilizing profiles are discussed further.

#### PREVIOUS RESEARCH FINDINGS

*Demographics.* The demographic characteristics reviewed for inmates who commit suicide are age, race, sex, and marital status. The age of suicide groups does not appear to differ significantly from the general jail population (Farmer, Felthous, & Holzer, 1996; Hayes & Rowan, 1988; Lupei, 1981). Descriptive statistics were utilized without the benefit of comparisons in other studies, placing the average age of an inmate who committed suicide in his or her mid-20s to early 30s (Hayes, 1983; Suchan, 1992). The sex of inmates who commit suicide was found to be insignificant in some studies when compared to jail populations (Farmer et al., 1996; Hayes & Rowan, 1988; Lupei, 1981). In previous studies, Hayes (1983) and Suchan (1992) resorted to descriptions of inmates who committed suicide, the overwhelming majority of whom were male. Studies concerning the race of inmates who committed suicide suggest that White inmates are overrepresented when compared to general jail populations (Esparza, 1973; Fawcett & Marrs, 1973; Hayes & Rowan, 1988); however, this disparity was not obvious in all studies (Lupei, 1981). Basic descriptions of the racial composition of suicide groups were employed in the foregoing studies and in Suchan (1992). Hayes (1983) and Suchan described an inmate's marital status for a suicide group, revealing that more than half were single. Other studies compared the suicide populations to general jail populations and did not find significant differ-

ences concerning the marital status of inmates (Farmer et al., 1996; Hayes & Rowan, 1988).

*Physical/mental condition.* The physical and mental conditions reviewed include suicidal tendencies, prior suicide attempts, mental illness, intoxication status, and physical health or condition. Suicidal tendencies or symptoms, as observed and/or reported by jail personnel or others, have been associated with jail suicide when compared to the general jail population (Lupei, 1981). Suicidal tendencies were descriptively quantified in other studies (Farmer et al., 1996; Suchan, 1992). Mental illness is a formidable problem in jails (Teplin, 1994) and the existence of prior suicide attempts and/or mental illness for inmates who commit suicide was described in numerous studies (Esparza, 1973; Farmer et al., 1996; Fawcett & Marrs, 1973; Hayes & Rowan, 1988; National Center on Institutions and Alternatives [NCIA], 1981; Suchan, 1992). An association between jail suicide and a history of suicide threats and attempts was drawn by Lupei (1981). Without the benefit of a comparison group, the intoxication status of inmates was linked with suicidal behavior (Hayes, 1983; Hayes & Rowan, 1988; Lupei, 1981; NCIA, 1981; Suchan, 1992). In the general population, physical problems such as epilepsy, cardiovascular disease, and cancer are common among suicide victims (Hawton, 1987). This variable was reviewed in relation to jail suicide by Hayes and Rowan (1988) and Lupei (1981) without definitive conclusions or finding significant results.

*Criminal history and current disposition.* The variables reviewed for an inmate who committed suicide related to criminal history and current disposition are current charges, jail status, and prior record. Pertaining to current charges, Lupei (1981) did not find a significant difference between the suicide and comparison groups. The mode for the most serious current charge of inmates who committed suicide was described as a personal or violent crime (Fawcett & Marrs, 1973; Suchan, 1992), and nonviolent offenses were the most serious current charges in other studies (Hayes, 1983; Hayes & Rowan, 1988). Farmer et al. (1996) found the majority of suicide attempters were charged with a violent offense. In the majority of cases in which the inmate committed suicide, an inmate's jail status was "detained" as opposed to "sentenced" (Hayes & Rowan, 1988; Lupei, 1981; NCIA, 1981; Suchan, 1992). Of inmates who committed suicide, the vast majority had a prior arrest record (Esparza, 1973; Hayes & Rowan, 1988; Suchan, 1992).

*Limitations of previous research.* The previous research provides a precarious description of an inmate at risk of suicide. The small sample sizes reduce the generalizability of previous research. Jail suicides, although disastrous, remain relatively rare phenomena that hinder statistical evaluation and

largely exclude inferences beyond the immediate groups and samples. The inconsistent employment of comparison groups threatens the validity of conclusions. As seen in most instances, comparison negates distinguishable characteristics of inmates who commit suicide. At some level, these limitations will continue to plague examinations of jail suicides.

Nevertheless, the recent work by Cox and Morschauser (1997) identifies the importance of high-risk profiles. By utilizing a comprehensive suicide-prevention program, including high-risk profiles, the authors found a 150% reduction in jail suicides in the state of New York since program implementation. Describing the program as a "solution" to jail suicides, the authors offer rationale for the continued examination of profiles.

The importance of the profile in the program is not clearly established. Without segregating the use of the profile from the rest of the program, its effects cannot be measured. Profiles have been shown to be the initial point of departure in jail suicide prevention, yet comparison groups and profile-focused methodology will allow a cleaner examination of a profile's place in jail suicide prevention.

## METHODOLOGY

### SUICIDE GROUP

To comprehensively compare suicidal inmates to inmates who do not attempt or commit suicide, inmates placed on suicide watch and those who attempt suicide must be calculated into the evaluation. Although this study recognizes the relevance of these factors, the information was not available. To examine suicide in confinement, previous studies have grouped together numerous jails (in some cases, prisons) and extrapolated a gross number of suicides or suicide rates for a period of several years (Davis & Muscat, 1993; Dooley, 1990; Suchan, 1992).

This study began by identifying county jail suicides from 1980 through mid-1998 at the State Office of Detention Facilities in a Midwestern state<sup>1</sup> and then confirmed the suicides by sending a questionnaire to the county jails. The number of county jail suicide case files in the State Office of Detention Facilities from 1980 through mid-1998 was 81.7% of the estimated total from the office's yearly summaries and a previous study (Suchan, 1992). Posing as a reliability problem, only 103 county jail suicides were identified and confirmed. There are several possible reasons for this discrepancy: Municipal-jail suicides and/or natural deaths might have been included in an original study done by Suchan (1992), thus impacting the estimation,<sup>2</sup> or files

might be missing from the State Office of Detention Facilities and the county jails erroneously verified the suicides.

#### NONEQUIVALENT COMPARISON SAMPLE

Previous criticism that profiles of jail suicide victims reflect the characteristics of the general jail population demonstrates the need for a comparison group that will provoke discriminating characteristics between inmates who commit suicide and those who do not. In a national study of jail suicides, Hayes and Rowan (1988) contrasted the demographic characteristics of a suicide group to descriptions of the general jail population (1988). In Lupei's (1981) study of all suicides in a state's municipal and county jails, a comparison group was drawn by interviewing jailers. The jailer was asked to identify the last person who was released the previous day, and that person became a subject for the control group (Lupei, 1981).

Weisheit and Klofas (1989), in a study of the costs and effects of jails on inmates, utilized a stratified sampling technique to elicit a representative sample of a jail population. The sample was not drawn as a control group; however, the method is applicable to comparison samples, which are designed to reflect the general jail population. The study sampled intake inmates, short-term inmates, and long-term inmates in proportion to each category's composition of the jail population. All short- and long-term inmates were interviewed. Upon examining the booking records for the same period of the previous year, the intake sample was randomly chosen according to the percentage of inmates received during the weekend and weekdays during a comparable time period. The study did not address possible seasonal variations in booking characteristics (Weisheit & Klofas, 1989).

This study draws a proportional random sample of inmates from a mid-western state's county jails that experienced jail suicides from 1980 through mid-1998. Selection of the counties to be sampled was determined by the initial frequency distribution of suicides. The number of inmates sampled from a chosen jail is proportional to the number of suicides experienced in jails of that region. Five county jails were chosen to reflect the five regions in the state, as delineated by the State Office of Detention Facilities of Detention Facilities.<sup>3</sup> A random sample of admissions was drawn from the records of these jails across the period of a week during 1999 to consider the early timing of most jail suicides and to ensure optimal response from the records. A random number table was employed at jails that consecutively number admissions. Systematic sampling (e.g., 1 of every 6) was used at the remaining sampled jails. Considering previous research, which indicates that suicidal behavior does not significantly vary among the days of the week (Hayes

& Rowan, 1988) or the months of the year (Hayes & Rowan, 1988; Suchan, 1992), the sample is representative of the 1999 admissions to county jails in the state that experienced inmate suicides. Due to the passage and enforcement of various laws during the 18 years in question and the emphasis on topical police initiatives (e.g., drunk driving, domestic abuse, etc.), changes in the jail population are inevitable. The 1999 inmate sample is not representative of the 1980 through mid-1998 county jail admissions; however, due to the time constraints of this study and the probable incomplete information of earlier jail records, the 1999 sample is used for the comparison sample with an acknowledgment of validity problems. The number of participants in the comparison sample (105) does not significantly exceed the number in the suicide group (103), so there are roughly equal groups for comparison purposes and to try to avoid artificially inflating statistical significance.

### VARIABLES AND MEASUREMENTS

All of the following variables were operationalized in a questionnaire. Prior to mailing the questionnaires to county jails, information was gathered at the State Office of Detention Facilities in an attempt to save the time and energy of jail personnel.

#### DEPENDENT VARIABLE

The dependent variable is dichotomous: SUICIDE or no suicide (non-equivalent comparison) for individual units of analysis. To identify suicides, other studies have used combinations of official jail records, interviews, and records obtained from state office of detention facilities, county coroners, and probation officers (Esparza, 1973). Some studies identified jail suicides by first surveying the jails that reside in the sample and then verifying and extrapolating on those results by surveying state departments of correction and medical examiners, in addition to utilizing newspaper clipping services (Hayes, 1983; Hayes & Rowan, 1988). The 1988 national study of jail suicides by Hayes and Rowan identified 45% of the suicide group through jail self-reports, about 44% via state departments of correction and medical examiners, and approximately 11% as a result of newspaper articles. Suchan (1992) identified suicides through evaluation of the jail suicides reported to a state office of detention facilities. Other studies identified suicides through the use of questionnaires to wardens (Smith, Lombardo, Ranson, & Sylvester, 1996), examination of inmate rule infractions (Bayens, Williams,

& Smykla, 1997; Senese, 1997), and information recorded on official records (Fawcett & Marrs, 1973; Lupei, 1981).

For the purposes of this study, *suicide* is defined as an inmate death occurring as a result of self-inflicted actions by that inmate while incarcerated in jail, whether the inmate dies at the facility, en route to the hospital, or at the hospital. As mentioned previously, this study identifies county jail suicides by reviewing the records at the State Office of Detention Facilities (which defines suicide as this study does) and sending a questionnaire to county jail administrators for verification. Suicides are indicated by open-ended questions, listed by year.

#### INDEPENDENT VARIABLES

For the suicide group, information concerning the independent variables was obtained from the State Office of Detention Facilities and questionnaires were sent to the county jails for verification and completion. For the non-equivalent comparison sample, information was collected by reviewing the records of incoming inmates and completing portions of the questionnaire during on-site county jail visits.<sup>4</sup> This method of measuring the pertinent variables has greater internal validity than sampling released inmates because all types of inmates in the general jail population are represented by sampling incoming inmates as opposed to released inmates. The selection of inmates in the comparison sample was described previously.

The independent variables AGE, MARITAL status, RACE, SEX, INTOXICATION status, PHYSICAL/medical problem, SUICIDAL TENDENCIES, MENTAL ILLNESS, mental health TREATMENT,<sup>5</sup> REFERRAL to mental health, CONTACT as a result of referral, CURRENT CHARGE, JAIL STATUS, and PRIOR(s) record are operationalized on the questionnaire. The questions are outlined in the appendix.

#### ANALYSIS

Analyses of the data are restricted by missing data, small sample sizes, and theoretical constrictions. First, descriptive statistics are utilized to depict both groups. Second, several variables are recoded in preparation for analyses. Finally, a chi-square test of significance determines statistical differences between the two groups. Inferential statistics are needed to determine the combined effect of the independent variables on the likelihood of an inmate committing suicide; however, due to the nature of the data and theoretical concerns over jurisdictional variances, further analysis is not attempted.



## RESULTS

### DESCRIPTION

The data for the suicide group indicate that AGE ranges from 12 to 56 years old, with mean 29.2 and median 28.0. AGE for the nonequivalent comparison group ranges from 17 to 57, with mean 31.0 and median 29.0.<sup>6</sup> The modes for the remaining independent variables are listed in Table 1. The frequency distributions are depicted in Table 2.

The descriptive statistics provide the data necessary to draw broad depictions of the typical characteristics of the suicide group and the nonequivalent comparison sample. An inmate in the suicide group is most frequently a single, White male who is under the influence of alcohol at admission, does not exhibit suicidal tendencies, and does not indicate a mental illness or physical/medical problems; it is unknown if he has a history of previous suicide attempts. He is not referred to mental health, is being detained for a violent/personal charge, and has a history of prior arrests. An inmate from the nonequivalent comparison group is most frequently a single, White male who is not under the influence of drugs or alcohol at admission and does not demonstrate suicidal tendencies, physical/medical problems, or mental illness; he does not have a known history of suicide attempts. He is referred to mental health, and contact is made between mental-health professionals and the inmate as a result of that referral. He is detained on a charge categorized as "other" (not violent/personal, property, alcohol- or drug-related, or a probation or parole hold). It is not known if he has a prior record of arrests.

The characterizations described above are usual descriptive profiles and do not compare the two groups; therefore, distinguishing traits are not available from the descriptive statistics.

Prior to statistical analysis, the "unknown" value was changed to "missing" for the following variables: MARITAL status, RACE, INTOXICATION status, ATTEMPTS, PHYSICAL/medical problems, REFERRAL, and PRIORS. Unknown values for SUICIDAL TENDENCIES and MENTAL ILLNESS were recoded as "no" under the conservative assumption that these variables rely on recorded observances by jail personnel and, as such, if the answer was originally "unknown," the answer should not logically be "yes."

### PEARSON CHI SQUARE

The suicide group was compared to the nonequivalent comparison group utilizing the chi-square test of significance. This test determines if there is a statistically significant difference between the observed values and the val-

**TABLE 1: Modes for Independent Variables**

| <i>Variable</i>                 | <i>Number of Responses</i> |  |
|---------------------------------|----------------------------|--|
|                                 | <i>Suicide Group</i>       | <i>Nonequivalent Comparison Sample</i> |
| MARITAL STATUS                  |                            |  |
| Single                          | 73                         | 104                                    |
| RACE/Ethnicity                  |                            |  |
| White                           | 96                         | 104                                    |
| SEX                             |                            |  |
| Male                            | 102                        | 104                                    |
| INTOXICATION status             |                            |  |
| Alcohol only                    | 78                         |  |
| Neither drugs nor alcohol       |                            | 104                                    |
| SUICIDAL TENDENCIES             |                            |  |
| No                              | 87                         | 104                                    |
| Known previous suicide ATTEMPTS |                            |  |
| Unknown                         | 63                         |  |
| No                              |                            | 104                                    |
| Indications of MENTAL ILLNESS   |                            |  |
| No                              | 58                         | 104                                    |
| PHYSICAL/Medical problems       |                            |  |
| No                              | 65                         | 104                                    |
| Mental health REFERRAL          |                            |  |
| No                              | 70                         |  |
| Yes                             |                            | 104                                    |
| Referral CONTACT                |                            |  |
| Yes                             | 11                         | 11                                     |
| CURRENT CHARGES (most serious)  |                            |  |
| Violent/Personal                | 100                        |  |
| Other                           |                            | 104                                    |
| Jail STATUS                     |                            |  |
| Detained                        | 89                         | 104                                    |
| PRIOR(s) record                 |                            |  |
| Yes                             | 76                         |  |
| Unknown                         |                            | 104                                    |

ues that would be expected if there was not a difference between the suicide group and the nonequivalent comparison group concerning the independent variables ( $p < .05$ ).

Significant differences were found between the two groups regarding RACE, SEX, SUICIDAL TENDENCIES, known previous suicide ATTEMPTS, receiving mental health TREATMENT, INTOXICATION status, and CURRENT CHARGE (see Table 3).

This comparison, by discriminating between the general jail population and inmates who committed suicide, produces suicide-prevention elements that go beyond traditional profiles. The results differ markedly from previous

TABLE 2: Frequency Distribution for Independent Variables

| Variable/Indicator                | Percentage of Responses |                                 |
|-----------------------------------|-------------------------|---------------------------------|
|                                   | Suicide Group           | Nonequivalent Comparison Sample |
| AGE                               |                         |                                 |
| 11-20                             | 13.7                    | 15.7                            |
| 21-30                             | 47.1                    | 37.2                            |
| 31-40                             | 28.4                    | 29.5                            |
| Over 40                           | 10.8                    | 17.6                            |
| (Number of responses)             | (102)                   | (102)                           |
| MARITAL STATUS                    |                         |                                 |
| Single                            | 63.0                    | 44.2                            |
| Married                           | 16.4                    | 5.8                             |
| Separated                         | 4.1                     | 1.0                             |
| Widowed                           | 0.0                     | 1.0                             |
| Divorced                          | 11.0                    | 11.5                            |
| Unknown                           | 5.5                     | 36.5                            |
| (Number of responses)             | (73)                    | (104)                           |
| RACE/Ethnicity                    |                         |                                 |
| White                             | 77.1                    | 66.3                            |
| Black                             | 8.3                     | 22.1                            |
| Hispanic/Spanish/Mexican American | 3.1                     | 4.8                             |
| American Indian                   | 9.4                     | 3.8                             |
| Other                             | 2.1                     | 1.0                             |
| Unknown                           | 0.0                     | 1.9                             |
| (Number of Responses)             | (96)                    | (104)                           |
| SEX                               |                         |                                 |
| Male                              | 97.1                    | 77.9                            |
| Female                            | 2.9                     | 22.1                            |
| (Number of Responses)             | (102)                   | (104)                           |
| INTOXICATION                      |                         |                                 |
| Under the influence of:           |                         |                                 |
| Drugs only                        | 1.3                     | 2.9                             |
| Alcohol only                      | 39.7                    | 25.0                            |
| Drugs and alcohol                 | 9.0                     | 1.9                             |
| Neither drugs nor alcohol         | 30.8                    | 61.5                            |
| Unknown                           | 19.2                    | 8.7                             |
| (Number of responses)             | (78)                    | (104)                           |
| SUICIDAL TENDENCIES               |                         |                                 |
| Yes                               | 29.9                    | 10.6                            |
| No                                | 66.7                    | 81.7                            |
| Unknown                           | 3.4                     | 7.7                             |
| (Number of responses)             | (87)                    | (104)                           |
| Known previous suicide ATTEMPTS   |                         |                                 |
| Yes                               | 31.7                    | 11.5                            |
| No                                | 33.3                    | 77.9                            |
| Unknown                           | 34.9                    | 10.6                            |
| (Number of responses)             | (63)                    | (104)                           |

(continued)

TABLE 2 (continued)

| Variable/Indicator                           | Percentage of Responses |                                 |
|--|-------------------------|---------------------------------|
|  | Suicide Group           | Nonequivalent Comparison Sample |
| Indications of MENTAL ILLNESS                |                         |                                 |
| Yes  | 29.3                    | 16.3                            |
| No   | 43.1                    | 75.0                            |
| Unknown                                      | 27.6                    | 8.7                             |
| (Number of responses)                        | (58)                    | (104)                           |
| Receiving mental health TREATMENT            |                         |                                 |
| Yes  | 31.0                    | 16.3                            |
| No   | 20.7                    | 74.0                            |
| Unknown                                      | 48.3                    | 9.6                             |
| (Number of responses)                        | (58)                    | (104)                           |
| PHYSICAL/Medical problem                     |                         |                                 |
| Yes  | 40.0                    | 29.8                            |
| No   | 46.2                    | 60.6                            |
| Unknown                                      | 13.8                    | 9.6                             |
| (Number of responses)                        | (65)                    | (104)                           |
| REFERRAL to mental health                    |                         |                                 |
| Yes  | 20.0                    | 11.5                            |
| No   | 78.6                    | 65.4                            |
| Unknown                                      | 1.4                     | 23.1                            |
| (Number of responses)                        | (70)                    | (104)                           |
| CONTACT as a result of referral <sup>a</sup> |                         |                                 |
| Yes  | 90.9                    | 100.0                           |
| No   | 9.1                     | 0.0                             |
| (Number of responses)                        | (11)                    | (11)                            |
| CURRENT CHARGE (most serious)                |                         |                                 |
| Violent/Personal                             | 34.0                    | 17.3                            |
| Property                                     | 18.0                    | 7.7                             |
| Alcohol- or drug-related                     | 14.0                    | 16.3                            |
| Other  | 26.0                    | 38.5                            |
| Unknown                                      | 0.0                     | 0.0                             |
| Probation/Parole hold                        | 8.0                     | 20.2                            |
| (Number of responses)                        | (100)                   | (104)                           |
| STATUS                                       |                         |                                 |
| Detained                                     | 93.3                    | 87.5                            |
| Sentenced                                    | 6.7                     | 12.5                            |
| (Number of responses)                        | (89)                    | (104)                           |
| PRIOR(s) record                              |                         |                                 |
| Yes  | 86.8                    | 39.4                            |
| No   | 5.3                     | 4.8                             |
| Unknown                                      | 7.9                     | 55.8                            |
| (Number of Responses)                        | (76)                    | (104)                           |

a. Question contingent upon a "yes" response to the referral question.

**TABLE 3: Pearson Chi Square Between Suicide Group and Nonequivalent Comparison Group**

| <i>Variable</i>                   | <i>Pearson<br/>Chi-Square<br/>Value</i> | <i>df</i> | <i>Significance<br/>(two-tailed)</i> |
|-----------------------------------|---|-----------|--------------------------------------|
| AGE (grouped)                     | 3.003                                   | 3         | .391                                 |
| RACE                              | 10.017                                  | 4         | .040*                                |
| MARITAL STATUS                    | 4.736                                   | 4         | .316                                 |
| SEX                               | 17.167                                  | 1         | .000*                                |
| SUICIDAL TENDENCIES               | 11.307                                  | 1         | .001*                                |
| Known previous suicide ATTEMPTS   | 20.149                                  | 1         | .000*                                |
| Indications of MENTAL ILLNESS     | 3.774                                   | 1         | .052                                 |
| Receiving mental health TREATMENT | 46.733                                  | 2         | .000*                                |
| INTOXICATION status               | 16.598                                  | 3         | .001*                                |
| PHYSICAL/Medical problems         | 2.695                                   | 1         | .101                                 |
| REFERRAL                          | 0.720                                   | 1         | .396                                 |
| CURRENT CHARGES                   | 17.785                                  | 4         | .001*                                |
| STATUS                            | 1.792                                   | 1         | .181                                 |
| PRIOR(s) record                   | 1.031                                   | 1         | .310                                 |

\* $p < .05$ .

research in that statistical comparisons are made between the two groups concerning all relevant variables. In addition, the variation and inconsistencies in previous research point to the need for jurisdiction-specific analyses.

### LIMITATIONS OF THE CURRENT STUDY

There are several limitations to this study, including missing data, sampling reliability, validity problems, and the heavy reliance on quantitative data. A threatening problem is missing data. As indicated earlier, jails have not always kept complete and comprehensive records. In addition, county jails in this study were not mandated to participate in this study. This missing data further weakened the statistical significance of already small sample sizes by reducing the external reliability of the results.

A further problem with the study lies in the sampling method. The non-equivalent comparison sample is not completely random. The scope of this study made it impractical to randomly sample incoming inmates at more than 70 county jails. In addition, the nonequivalent comparison sample was taken of inmates entering jails in the summer of 1999, causing validity problems. The historical changes that altered the county jail populations, such as changes in law enforcement and bail procedures, are not accounted for in this sample. The sample is not representative of the county-jail inmate population

in the state from 1980 through mid-1998; however, sampling the records of inmates from almost 20 years ago is a daunting proposal with the likelihood of receiving suspect data from a period in which emphasis was not placed on comprehensive record keeping. It is hoped that by drawing a sample of incoming inmates, the diversity of county-jail inmate populations is sufficiently represented.

The suicide group has both reliability and validity problems. It has reliability problems due to the previously described discrepancy in the number of suicides identified. It has validity issues as a result of the definition of suicide. One of the purposes of this study is to discriminate between inmates who are suicidal and those who are not suicidal. Data were not available for suicide attempts or suicide watches; hence, inmates who otherwise might have committed suicide but did not because of existing screening practices and interventions are not examined. Therefore, this study compares inmates who committed suicide and were not protected by existing screening practices to inmates in a nonequivalent comparison group. It is quite possible that a number of suicides never occurred due to existing suicide-prevention practices; therefore, this study's suggestions are to be considered additions to existing policies and practices.

A possible validity concern arises by virtue of the status of inmates in the suicide group. Variables such as MENTAL ILLNESS and SUICIDAL TENDENCIES "might be impacted by retrospective interpretation" (D. Barlow, personal communication, May 27, 1999). In other words, suicidal tendencies might have been documented after the suicide. This study does not employ alternative measures (e.g., fellow-inmate interviews) due to the enormity of such an undertaking and the validity problems that accompany the passage of time.

In addition, the variable INTOXICATION status is more dynamic than this project could fully address. An inmate's level of intoxication depends not only on blood-alcohol levels but on the inmate's history of alcohol and other drug use. To capture the totality of intoxication, in-depth interviews and case studies are required.

Finally, there are the persistent concerns with relying heavily on quantitative data. Suicide is an extremely complex issue with dire consequences. Quantitative data are only capable of capturing a portion of the reality. Interviews would provide a glimpse into the minds of inmates who attempt suicide, providing explanations that mere numbers are unfit to describe. Unfortunately, qualitative research is beyond the scope of this study. Future research is encouraged to address these issues and develop more valid and reliable suicide-prevention techniques than are possible in this study.

## DISCUSSION AND CONCLUSION

### POTENTIAL CONTRIBUTIONS

This study should aid politicians, jail administrators, and jail personnel in addressing the problem of suicide in their jails. Variation among jurisdictions challenges each jurisdiction to examine jail suicides specific to each area. In addition to current screening techniques, emphasizing race, sex, suicidal tendencies, previous suicide attempts, mental-health treatment, intoxication status, and current charges of inmates will enable jail personnel to classify inmates more effectively. Particular attention might be given to these characteristics.

Kennedy and Homant (1988) argued that profiles are often descriptions of general jail populations and, therefore, not effective suicide-prevention tools. This study identifies significant differences between the suicide group and nonequivalent comparison sample. A byproduct of this comparison emphasizes that some of the independent variables do not significantly differ, supporting Kennedy's and Homant's assertion. The use of descriptive profiles in jail suicide prevention potentially draws attention to characteristics of the general jail population, thereby increasing false-positive suicidal classifications that reduce sensitivity to the distinguishable characteristics of suicidal inmates. Attention to the characteristics attributed to suicidal inmates in this study should increase the efficacy of current suicide-prevention classification policies and practices.

Other suggestions arise from the research process itself. The importance of complete and accessible employee records cannot be overstated. Although record keeping has greatly improved since 1980, there are still improvements that need to be made. Identifying completed suicides and suicide attempts proved cumbersome, if not fruitless, in some instances. The development of a record system should be constructed between the county jails and the state. Records of suicides and suicide attempts should be kept separate from other files, using a cross-referencing system to locate the main inmate files. This will allow easier identification by jail officials.

During on-site visits to county jails and conversations with jail personnel, an impediment in the flow of communication was observed. At jails that employ medical personnel to complete the intake screenings, the screening is considered confidential. As such, only determinations of suicide-watch status appear to be available to frontline officers. Therefore, information relevant to supervision (e.g., past suicide attempts, receiving mental health treatment, etc.) is not available to the supervising officers unless a health-care professional classifies an inmate as a suicide risk. The lines of communica-

tion appear to be open in jails where intake screenings are conducted by jail personnel.

**RECOMMENDATIONS FOR FUTURE RESEARCH**

Future research concerning jail suicides should use attempted suicides and a comparison group from the general jail population to differentiate characteristics of a suicidal group. Case studies will reveal more about individual suicides, possible social contagion, and other potential factors in jail suicide that have not yet been identified. It is further recommended that each jurisdiction research its specific jail population and jail suicides to identify regional and jurisdictional variations.

**SUMMARY**

The final aspiration of this study is to aid in the prevention of county jail suicides in the state. The results of this study provide an opportunity for politicians, jail administrators, and jail personnel to actively prevent future jail suicides. Jail administrators have the information necessary to positively modify their record-keeping practices. Jail suicide profiles are limited in application to the studied jurisdiction. Furthermore, comparison groups are warranted to distinguish inmates who commit suicide from those who do not. Profiles contain value only under the narrow prescription of jurisdiction-specific profiles that utilize a comparison.

**APPENDIX**  
**Operationalization of Variables: Questionnaire**

| <i>Question</i>   | <i>Available Responses</i>   |
|---|--|
| Age   | _____ Years  |
| Marital status  | (1) Single, (2) Married, (3) Separated, (4) Widowed, (5) Divorced, (6) Unknown   |
| Race/Ethnicity  | (1) White, (2) Black, (3) Hispanic-, Spanish-, Mexican-American, (4) American Indian, (5) Other (Please Specify: _____), (6) Unknown |
| Sex   | (1) Male, (2) Female   |
| At the time of incarceration, was the victim under the influence of . . . ? | (1) Drugs Only, (2) Alcohol Only, (3) Drugs and Alcohol, (4) Neither Drugs nor Alcohol, (5) Unknown                                  |

*(continued)*



## APPENDIX (continued)

| <i>Question</i>  | <i>Available Responses</i>                                      |
|--|---|
| Were there any indications of physical/medical problems concerning the victim prior to his/her suicide?  | (1) Yes, (2) No, (3) Unknown                                    |
| Was a referral made to mental health professionals prior to the suicidal act?  | (1) Yes, (2) No, (3) Unknown                                    |
| Was there contact made between the inmate and mental health professionals as a result of referral? <sup>7</sup>  | (1) Yes, (2) No   |
| Did the victim exhibit suicidal tendencies upon admission or afterwards, such as withdrawal, lethargy, loss of appetite, mood swings, and changes in sleeping patterns?  | (1), (2) No, (3) Unknown  |
| Were there any known previous suicide attempts by the victim?  | (1) Yes, (2) No, (3) Unknown                                    |
| Were there any indications of mental illness concerning the victim prior to his/her suicide?   | (1) Yes, (2) No, (3) Unknown                                    |
| Was the inmate receiving mental health treatment either in jail or outside of jail (e.g., therapist, psychiatrist, etc.)   | (1) Yes, (2) No, (3) Unknown                                    |
| Beginning with the most serious charge, please specify charge(s) for which victim was incarcerated at time of suicide and whether the victim was being detained or had been sentenced on that (those) charge(s). | Charges _____<br>Detained _____<br>Sentenced _____ <sup>a</sup> |
| Did the victim have a prior record of arrests?   | (1) Yes, (2) No, (3) Unknown                                    |

a. Author later categorized charges as (1) Violent/Personal, (2) Property, (3) Alcohol- or Drug-Related, (4) Other, (5) Unknown, (6) Probation or Parole Hold. Jail Status: (1) Detained, (2) Sentenced.

## NOTES

1. Henceforth referred to as "state."
2. The files at the State Office of Detention Facilities include natural deaths and suicides that occurred at county jails, municipal jails, and police lockups. Suchan's (1992) study described county jail suicides and evaluated suicide-prevention policies from 1980 through 1992 in a Mid-western state.
3. One of the county jails originally selected for the sample was dropped and replaced with another jail in that region because medical personnel perform the intake screening, thereby making that information confidential and subject to informed-consent requirements. Rather than trying to obtain informed consent, another jail was chosen.

4. Any references in the questions to "suicide" or "victim" were negated for the nonequivalent comparison sample.
5. Included at the request of officials at a mental health and jails meeting.
6. A case that had an outlier for AGE with a value of 83 was deleted.

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