

❏ PREDICTORS OF SUICIDE IN NEW GENERATION JAILS

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❏ Abstract

Podular direct supervision jails, also called new generation jails, have been credited by practitioners and some researchers with reducing violence, stress, and suicide among inmates. A recent national comparison of these facilities with more traditional jails revealed that the direct supervision institutions were no less likely than the other jails to experience inmate suicides. The current study involves a closer look at the podular direct supervision facilities. The purpose of this study is to determine which jail characteristics are predictors of suicide. Results indicate that the jail environment and the number of inmate-inmate assaults are predictors of jail suicides. Jails that provide an environment that allows inmates to control lighting, control entrance and exits of cells, and have materials that reduce echoes were less likely to report a suicide in 2003 than those that did not offer those features. Jails with a lower number of inmate-inmate assaults were also less likely to report a suicide in 2003.

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Incarceration is a stressful experience for nearly everyone, and it is especially difficult given that many who are placed in jail are mentally ill or under the influence of drugs or alcohol (Davis & Muscat, 1993; Farmer, Felthous, & Holzer, 1996; Hayes, 1989; Hayes & Rowan, 1988). Even if an inmate is sober and has no history of mental illness, the stress from incarceration alone can be enough to make someone contemplate suicide. Officers, case workers, medical staff members, and counselors who work in jails must supervise and treat inmates who, at various points in their incarceration, may become suicidal.

Jail suicides are devastating to both the surviving inmates who are reminded about their own mortality and the harshness of incarcerated life as well as the staff who are left wondering what they could have done to prevent this tragedy from happening. Additionally, the administration will likely be closely examined in the aftermath of a suicide and will probably be named in a civil suit brought by the victim's family. The public expects jail officers and administrators to have a reasonable amount of control over a population that has little freedom, and the courts have expressed their willingness to find corrections departments liable for their action or inaction in inmate suicide cases (see Kappeler, 1993; Kappeler, Vaughn, & Del Carmen, 1991).

Administrators with the Federal Bureau of Prisons (BOP) were concerned about suicide, violence, and vandalism occurring in their Metropolitan Correctional Centers (MCCs) during the 1970s. In response to these problems, the BOP commissioned architects to design a new jail, resulting in the creation of the podular direct supervision model, or new generation jail. This jail has been credited by researchers and practitioners with reducing rates of violence, vandalism, and, of particular importance for this study, suicide. What follows is a brief history of the new generation jail.

Podular Direct Supervision

The first podular direct supervision jails were opened by the BOP in the mid-1970s in San Diego, New York, and Chicago. Violent incidents, homosexual rape, and suicide occurred much less frequently in these newly designed jails than in the older facilities that were being replaced (Nelson & Davis, 1995; Wener, Frazier, & Farbstein, 1993). County jails later adopted this model, and by 1995, 147 of these facilities housing over 70,000 inmates were operational in the United States (Kerle, 1998). The number of new generation jails listed in the National Institute of Corrections Direct Supervision Jail Directory increased to nearly 300 by 2000 (Harding, Linke, Van Court, White, & Clem, 2001).

Direct supervision jails look very different than traditional facilities. The institutions are divided into pods, which are triangular or rectangular areas. The walls of the pod are lined with cells or rooms, and the center of the pod consists of a day-

room for inmates to converge, watch television, and socialize. The podular design facilitates officer supervision of inmates, since the sightlines are greatly improved over what is found in linear jails. What is unique about these facilities, however, is the normalized physical environment and management strategy that focuses primarily on corrections officers' interpersonal communication skills. Creators of the direct supervision model believed that by developing an environment that generates positive expectations for inmates' behavior, jail staff members would be able to maintain a jail that is less violent and less stressful for inmates and staff.

Wener (2005) identified five components of the direct supervision model: (1) Creating a new understanding of the role of the officer in the institution; (2) Taking officers out of control rooms and placing them in living areas where they would interact directly with inmates; (3) Implementing decentralized, small living units (functional unit management); (4) Promoting the use of non-institutional environments; and (5) Defining this new system and identifying its management principles.

The first and second components will be addressed simultaneously, since both refer to the work of corrections officers. Wener suggested that the work of corrections officers in new generation jails involves proactive work and the use of extensive communication skills training. Direct supervision facilities lack physical barriers between the officers and inmates in the dayroom, so officers have direct contact with inmates throughout the day. Due to the close contact, the officers are expected to detect signs of tension between inmates and defuse the situation by either talking to the inmates or by restricting privileges (Nelson, 1988; Wener et al., 1993). New generation jails typically have an interior design that provides a much more comfortable living environment for inmates, and this gives the officers some leverage when dealing with unruly inmates. Officers are better able to use the threat of removal of privileges or expulsion from the pod as incentive for good behavior.

This approach to correctional supervision could have important implications for violence and fear of violence in jails. Gettinger (1984) discussed problems in traditional jails that new generation jails are in a position to alleviate. One of those problems is the power vacuum that tends to form when inmates are left alone in the living areas. Gettinger suggested that the absence of officers in the living areas of traditional jails produces a situation conducive to the creation of weapons, formation of gangs, and increased conflict among inmates and between inmates and officers. The result tends to be a stressful jail environment in which some inmates are left fearing for their safety. This stress, combined with the existing stressors of separation from family and uncertainty about the future, can lead to feelings of hopelessness and thoughts of suicide. Indeed, Blaauw, Winkel and Kerkhof (2001) and Liebling (1993) found that juvenile and adult inmates who were victims of bullying were more likely to attempt suicide while incarcerated. Officers' presence in the pod and their efforts to maintain a safe and secure environment can reduce inmates' stress and fear.

The third component of direct supervision jails that Wener (2005) discussed was the development of small, decentralized living units (unit management).

Levinson (1999) defined unit management as an approach to management that “incorporates the notion that cooperation is most likely in small groups that have lengthy interactions” (p. 2). Levinson suggested that such an approach can lead to better communication between inmates and staff, which will foster better program planning. A unit management setup can also allow the staff members who actually work with and know the inmates to make decisions regarding their care, and these decisions can be made more quickly. This system may operate even more efficiently if inmate services can be delivered right on the pod level rather than in a central location in the jail.

Fourth, the creation of a non-institutional or “normalized” environment is an important component of the direct supervision jail. Ray Nelson (1988), the first warden of the Chicago MCC, operationalized a normalized environment as “inmate living areas outfitted with normal commercial fixtures, finishes, and furnishings” (p. 10). The BOP relied on the work of environmental design researchers as justification for this aspect of the jail. Environmental criminologists have noted that a person’s surroundings have the potential to influence behavior. Jeffery (1971) identified two ways in which urban environments could do so. First, they can affect physical behavior by providing factors, such as noise, overcrowding, and pollution, to which an individual will respond. Second, social relationships can be influenced by elements such as alienation, anxiety, and dehumanization. All of the aforementioned physical and social characteristics can also be found in jails. Bowker (1980) summarized the environment of correctional facilities with the following: “It is more than a play on words to say that prison assaults occur in an environment that is itself an assault upon the senses. The noise is deafening, the architecture obnoxious, and most of all, the prisoners have little control over their fate” (p. 30).

Expensive steel or concrete beds and steel toilet seats and sinks are frequently used in jails, since they are more difficult to damage than wood furniture or porcelain fixtures. Heavy metal doors and bars are also used to prevent escapes (Zupan, 1991). Resser (1989) explained that “vandal-proof” fixtures express to an inmate that “you are a vandal” and “you cannot damage this fitting.” Resser reasoned that inmates are likely to respond negatively to this message and participate in destructive behavior. Wener and colleagues (1993) suggested that this type of setting sends a message that animal-like behavior is expected of the inmates, since they are placed in cages while officers stay a safe distance on the other side of the bars. Environmental “stressors” in jails, such as lack of privacy, boredom, excessive heat, noise, unpredictability, and crowding, all of which are beyond the control of inmates, may influence inmates’ physical and mental health as well as social behavior (Zupan, 1991; Zupan & Menke, 1991). Zupan (1991) summarized the problem with the traditional jail environment: “Architectural and operational features used to prevent violence and destruction may foster misbehavior by communicating and reinforcing negative expectations to inmates” (p. 87).

Accordingly, proponents of new generation jails suggest that if inmates are given the impression that destructive behavior will not be tolerated and they are

given incentives to behave, they are more likely to conform. Nelson (1988) wrote that "In essence, an environment designed to be indestructible evokes destructive behavior, while an environment designed for normal usage evokes normal behavior" (p. 10). Wener, Frazier and Farbstein (1985) described new generation environments as including comfortable furniture and a tile or carpet floor, ample telephones, television sets, and recreation areas. The absence of bars and vandal-resistant settings reduces the high noise levels due to echoes often found in correctional facilities. Individual rooms or cells should also have non-institutional furniture. The comfortable furnishings serve to reduce stress by making the unit look and sound "non-institutional" (Wener et al., 1985).

The fifth component of new generation jails listed by Wener (2005) was defining this new system and identifying its management principles. Most of these principles were addressed by the first and second components discussed above, such as providing effective supervision, controlling the living areas, training the staff, and providing a safe environment for the inmates.

If done properly, direct supervision should create an environment that is less stressful to the inmates, since the officers' presence and proactive approach to order maintenance should result in a less dangerous environment. This method of supervision, combined with the non-institutional environment, is thought to not only reduce inmates' fear of assault, but also reduce suicide attempts. The supervision of inmates is expected to make suicide more difficult, but the more relaxed environment generated by direct supervision and the non-institutional look to the pods is supposed to prevent the onset of suicidal crises for its residents.

Some evaluations of jail systems that made the transition from a traditional jail to podular direct supervision have been encouraging. Jackson (1992) examined the transition in Sonoma County, California, and found a decline in the number of attempted suicides. Senese (1997) also found a decline in suicides as a county moved from a traditional facility to a new generation jail. Bayens, Williams, and Smykla (1997a, 1997b) reported similar results. Wener and colleagues (1985) did find a slight increase in suicides and attempted suicides in a new generation facility, but this was attributed to the lack of visual surveillance of disturbed inmates.

One study involved a cross-sectional analysis of several hundred jails. Tartaro (2003) compared three types of jails: linear intermittent, podular indirect supervision, and podular direct supervision facilities. Logistic regression models were developed to determine the odds of these jails experiencing at least one suicide during 1998. Jail design and supervision were not found to be significant predictors of suicide. Tartaro did suggest that a possible explanation for the null finding was that many of these direct supervision jails were not true to the principles of direct supervision. Due to the small sample of direct supervision jails ($n = 67$), Tartaro was unable to analyze those jails alone to determine whether non-adherence to the design and supervision characteristics is associated with suicides.

The current study involved an analysis of data collected as part of a national survey of podular direct supervision jails. The purpose of this study was to deter-

mine which characteristics of the podular direct supervision jails are predictors of custodial suicide. Variables identified in the literature as being key components of podular direct supervision jails were included. Three hypotheses were tested:

1. Jails that offer more extensive communication skills training to its officers will be less likely to report a suicide in 2003 than those that do not.
2. Jails that concentrate their services on the pod level will be less likely to report a suicide in 2003 than those that do not.
3. Jails that take steps to make their living areas “non-institutional” will be less likely to report a suicide in 2003 than those without “non-institutional” living areas.

Methodology

Surveys were sent to nearly every jail listed in the National Institute of Corrections’ (NIC) *2001 Directory of Direct Supervision Jails* (Harding et al., 2001) during the summer of 2004. The NIC identified two elements of direct supervision when determining which jails to include in its directory. First, the housing design must be podular, meaning “inmates’ cells are arranged around a common area, usually a dayroom. There is no secure control booth for the supervising officer, and there are no physical barriers between the officer and the inmates. The officer may have a desk or table for paperwork, but it is in the open dayroom area” (p. v). Second, the inmate management style is direct supervision, meaning, “An officer is stationed in the pod with the inmates. The officer moves about the pod and interacts with the inmates to manage their behavior” (p. v). The NIC authors did note that “NIC staff did not visit any of these jails for purposes of developing this directory, and by publishing this directory NIC is in no way certifying or evaluating them as direct supervision jails or otherwise” (p. v).

Two hundred ninety-two jails were listed in the directory. Two listings were duplicates, and one of the facilities had closed since the directory was published. Five facilities were not sent surveys, since they were specifically identified in their names as being work-release centers. Surveys were sent to the remaining 284 jails. Respondents from two facilities indicated that their jails were not yet operational, six respondents indicated that their jails were not direct supervision facilities, and one respondent filled out the survey but reported that less than 10% of the institution’s beds were in a direct supervision area. This reduced the pool of eligible responding jails to 275. Of those, 150 jails responded, providing a 55% response rate.

Sixty-nine percent of the jails (103) reported no suicides during 2003 (Table 1). Eighteen percent (27) reported one suicide, 6% (9) reported two, and 1% (1) reported six suicides in 2003. Seven percent (10) of the jails did not answer this question. These data are similar to those collected in a survey of direct supervision

Table 1

Direct Supervision Jail Characteristics, 2003

	Frequency	Percent	Mean	SD	Median
Suicides in 2003					
Zero	103	68.7%	-	-	-
One	27	18.0	-	-	-
Two	9	6.0	-	-	-
Six	1	0.7	-	-	-
Non-responses	10	6.7	-	-	-
Officer Training and Presence on the Pods					
% of shift officers spend circulating in living area	142	-	70.42	28.96	80.00
Hours of CST ^a for officers during their first year					
One day or less	51	34.0	-	-	-
More than one day, up to two days	36	24.0	-	-	-
More than two days	57	38.0	-	-	-
Non-responses	6	4.0	-	-	-
Hours of SPT ^b provided to incoming officers/year					
1/2 day or less	53	35.3	-	-	-
Over 1/2 day	93	62.0	-	-	-
Non-responses	4	2.7	-	-	-
Hours of SPT provided to officers/year					
1/2 day or less	53	35.3	-	-	-
Over 1/2 day	93	62.0	-	-	-
Non-responses	4	2.7	-	-	-
Jail mandates follow-up SPT for officers/year	114	76.0			
Maximum number of inmates/officer	144	-	59.32	15.47	60.00
Physical Characteristics of the Jail					
Number of services available on the pod level ^c	142	-	1.71	1.79	1.00
Jail environment score ^d	134		1.99	0.95	2.00
Jail uses wood and fabric furniture in the living area					
Yes	39	26.0	-	-	-
No	110	73.3	-	-	-
Non-responses	1	0.7	-	-	-

Table 1: Direct Supervision Jail Characteristics, 2003, *continued*

	Frequency	Percent	Mean	SD	Median
Additional Variables					
Area surrounding the jail					
Urban area	79	52.7			
Rural/suburban area	63	42.0			
Missing information	8	5.3			
Inmate-inmate assaults	126	-	63.67	26.50	120.58
Inmate-inmate assaults (transformed) ^a	126	-	3.19	3.31	1.45
% inmates housed alone	140	-	29.89	9.50	36.04
Rated capacity (transformed) ^c	147	-	6.25	0.89	6.29

^a Communication skills training
^b Suicide prevention training
^c Sum of services available on pod level (education + religious services + therapy + drug counseling + work + recreation)
^d Sum of jail environmental score (jail uses rubber bumpers and other materials to reduce echoes + inmates are able to control the lights in their rooms or cells + inmates can enter and exit their cells during most of the day)
^e The authors conducted statistical transformations by taking the natural log of the variable.

jails in 1999. Respondents were asked about the number of suicides occurring in their jails during 1998, and 66% reported no suicides, 26% reported one, and 8% reported two or more (Tartaro, 2003).

As with most jail suicide studies, the suicide statistics presented here should be considered with caution, since they likely present an underestimation of the problem. Welch and Gunther (1997) noted that official corrections reports may be altered to place correctional staff in a more favorable light. Additionally, differences of opinion about the location of a suicide (incidents often are inappropriately listed as occurring in hospitals) may contribute to inaccuracies (Hayes, 1989).

Although all of the responding jails in this analysis were reported to be direct supervision, it is important to control for the percentage of the shift that officers are actually spending in the living area with the inmates. The mean response to the question about time spent was 70% (SD = 28.96). The survey included a question about the amount of communication skills training offered to incoming officers. Respondents were given six response options: none, 1 to 8 hours, 9 to 16 hours, 17 to 24 hours, 25 to 40 hours, and 41 or more. For the current study, three variables were created: one day of training or less, more than one and up to two days of training, and more than two days of training. Thirty-four percent (51) of jails offered a day or less of communication skills training. Twenty-four percent (36) offered more than one day and up to two days of training, and 38%

(57) offered over two days of training. Since this study addresses suicide, hours of mandatory suicide prevention training provided to officers each year was included in the analysis. Jails that mandated at least half a day of training were coded 1, while those that offered less than half a day were coded zero. Sixty-two percent (93) of respondents indicated that their jails offer over half a day of suicide prevention training for their officers each year. Seventy-six percent (114) of the jails required yearly suicide prevention training for all officers.

The inmate/officer ratio was found by other researchers to be an important predictor of suicides in correctional settings (Wooldredge & Winfree, 1992). The NIC Direct Supervision Jails Directory included information about the maximum number of inmates that the facility allows each officer to supervise. The average number reported was 59 inmates per officer. This information is in line with the fact that the average large pod in each facility holds 66 inmates, and pods in new generation jails are intended to be run by one officer.

As was noted earlier, Wener (2005) explained the importance of unit management, and Levinson (1999) discussed offering services within each unit. The survey included questions about which services are offered in these jails and whether these services were offered at the pod level. The concentration-of-services variable consists of the sum of the following services offered at the pod level: education, religious services, individual or group therapy, drug counseling, work assignments, and recreation. Scores ranged from zero to six, with a mean of 1.71 ($SD = 1.79$). Cronbach's alpha for this variable was .799, indicating high reliability.

A "normalized" environment is thought to be an important element of new generation jails. The survey included several questions about the jails' physical characteristics. Respondents were asked about the type of furnishings and fixtures used in the living areas, whether rubber bumpers or other materials are used to reduce noise and echoes in the living areas, and whether inmates could control the lights in their rooms or cells. The survey also included a question about whether inmates were able to enter and exit their cells throughout the day. This is important, since it gives inmates some control over socializing with other inmates in the dayroom or having some limited privacy inside their cells.

Jails received one point for each affirmative response to the questions about using noise reduction techniques, allowing individual light control, and allowing cell access throughout most of the day. Jails were also given one point when they had wood or fabric furniture. Factor analysis was used to reduce the number of variables for the physical environment. The new variable is called "jail environment score" and includes the sum of three variables: noise reduction techniques in use, inmates can control lights in their cells, and inmates can enter and exit their cells throughout most of the day. The values for this variable range from 0 to 3, with a mean of 1.99 ($SD = 0.95$). The type of furniture used in the living areas was excluded from the jail environment score variable due to the low factor loadings relative to the other variables but remained in the model as a separate variable. Twenty-six percent (39) of jails indicated that they used wood and fabric furniture in the living areas.

A few additional variables were included due to their potential relationship with reported suicides. The area surrounding the jail (1 = urban, 0 = suburban or rural) was included since urban jails may need to house more mentally ill inmates or “frequent flyers,” the slang used by jail staff to describe people who are repeatedly jailed for minor offenses. Persons with mental illness tend to gravitate to larger communities (see Kelleher, Taylor, & Rickert, 1992; U.S. Department of Health and Human Services, 1999), and these areas often place their suspects and offenders in urban jails. Fifty-three percent (79) of responding jails were in urban areas.

The number of inmate-inmate assaults was also included in the analysis, since the presence of one type of security problem may predict other types of security issues, such as suicides. The mean number of reported inmate-inmate assaults was 63.67 in 2003. The distribution for this variable was non-normal, so a natural log transformation was conducted, and this reduced the variability. The percent of inmates housed alone in cells in the direct supervision part of the jail was also included (29.89%). Placement of inmates in cells by themselves has the potential to increase the opportunity for suicide due to the absence of a cell mate to call for help (Inch, Rowtat, & Soliman, 1995). The Bureau of Justice Statistics found that jail size was correlated with suicides, with larger jails having fewer suicides between 2000 and 2002 (Mumola, 2005). For that reason, the log of the jails’ rated capacities was included in the analysis.

Results

The results of the bivariate analysis are displayed in Table 2. None of the direct supervision jail characteristics were correlated with reported suicides. The location of the jail was significant, with urban jails being more likely to report at least one suicide in 2003. The number of reported inmate-inmate assaults was also related to reported suicides, with jails having higher levels of inmate-inmate assault being more likely to report at least one suicide in 2003. There was also a correlation between the size of the jail (log of rated capacity) and reported suicides, but this variable was not included in the multivariate model. (The relationship was positive, with larger jails being more likely to report at least one suicide in 2003.) Jail size was omitted since there was a moderately strong correlation between rated capacity and inmate-inmate assaults ($r = .630$). Since the two variables could not be included in a multivariate model together, inmate-inmate assaults was chosen due to its slightly stronger relationship with the dependent variable.

For multivariate analysis, logistic regression was the most appropriate test, given the dichotomous dependent variable. A preliminary ordinary least squares regression model was developed to detect multicollinearity (Mertler & Vannatta, 2002). Tolerance statistics indicated little correlation between the independent variables selected. Logistic regression analysis was then conducted to determine the odds of these jails experiencing at least one inmate suicide during 2003. The

Table 2

Bivariate Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. At least one suicide in 2003 (1 = yes, 0 = no)	1													
2. Jail provides ≤ 1 day of CST ^a for new officers (1 = yes, 0 = no)	-.166	1												
3. Jail provides 1-2 days of CST for new officers (1 = yes, 0 = no)	.018	-.428**	1											
4. Jail provides ≥ ½ day of SPT ^b to new officers (1 = yes, 0 = no)	.133	-.398**	-.058	1										
5. Jail mandates yearly SPT for officers (1 = yes, 0 = no)	.004	-.296**	.136	-.037	1									
6. Maximum # of inmates/officer	.010	.030	-.149	-.026	.038	1								
7. % of shift officers spend circulating in living area	.056	-.147	-.001	.020	.117	.035	1							
8. Furnishings (1 = wood/fabric; 0 = other)	-.040	.002	-.048	-.048	-.099	.272**	-.119	1						
9. Jail environment score	-.118	-.059	.037	-.187*	.272**	.122	.002	.187*	1					
10. # services offered on the pod	-.019	.035	-.037	-.024	.197*	.105	.054	-.006	.068	1				
11. Area surrounding jail (1 = urban, 0 = rural/suburban)	.248**	.013	-.092	.137	.156	.007	-.151	-.055	-.118	.084	1			
12. % inmates housed alone	.024	-.150	.127	.198*	.091	-.321**	-.025	.031	.180*	.179*	-.012	1		
13. Inmate-inmate assaults	.294**	.131	-.127	-.094	.040	.419**	-.122	.020	-.006	.095	.316**	-.203*	1	
14. Rated capacity (transformed)	.203*	-.071	-.080	.107	-.149	.486**	-.084	.074	-.079	.149	.229**	-.211*	.630**	1

^a Communication skills training. ^b Suicide prevention training

* Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

purpose of logistic regression analysis is to estimate the odds ratios for each of the independent variables in the model (*SPSS Regression Models 11.0*).

The logistic regression model is displayed in Table 3. None of the officer training or officer circulation variables increased the chance of inmate suicide. One of the variables that relate to inmate living areas, jail environment score, was found to significantly increase the chance of suicide in these jails in 2003 ($B = -.673, p < .05$). For every additional jail environmental score characteristic that the jail possessed, the jail was about half as likely to have a suicide. The other inmate living area variable, type of furnishings, was not significantly related to suicide.

The final variable that was significant in the logistic regression analysis was inmate-inmate assaults ($B = .673, p < .01$). For every inmate-inmate assault, a jail was 1.96 times more likely to have a suicide. The type of services offered at the pod

Table 3

Logistic Regression Analysis

	B	S.E.	Exp(B)
Maximum number of inmates per officer	-.012	.027	-
Jail provides ≤ 1 day of communication skills training for new officers (1 = yes, 0 = no)	-.111	.832	-
Jail provides 1-2 days of communication skills training for new officers (1 = yes, 0 = no)	.054	.707	-
Jail mandates yearly suicide prevention training for officers (1 = yes, 0 = no)	-.500	.821	-
Jail provides at least ½ day of suicide prevention training to new officers (1 = yes, 0 = no)	.970	.778	-
% of shift officers spend circulating in living area	.007	.011	-
Furnishings (1 = wood/fabric, 0 = other)	.634	.765	-
Jail environment score	-.673 *	.334	.510
Number of services offered on the pod level	-.083	.191	-
Inmate-inmate assaults	.673 **	.252	1.960
Area surrounding jail (1 = urban, 0 = rural/suburban)	.492	.622	-
% inmates housed alone	-.002	.009	-
Constant	-2.231	2.140	-
-2 log likelihood = 82.98		$\chi^2 = 18.86$	$p = .092$
Cox & Snell $r^2 = .197$			
Nagelkerke $r^2 = .284$			

* $p < .05$ ** $p < .01$

level, type of area surrounding the jail, and percent of inmates housed alone do not significantly predict an increase in the likelihood of suicide. Despite the significance of both the jail environment score and inmate-inmate assaults with regard to suicide, the model was not significant ($-2 \log \text{likelihood} = 82.98, p = .092$)

Discussion

The results of the analysis conducted in this study provide no evidence to support the first and second study hypotheses. The first hypothesis involves the impact of officer training on suicides, and the second suggests a relationship between the concentration of services on the pod level and reported suicides. Detailed information about the nature of the training offered in these facilities would likely provide insight on types of training that are more or less effective. Additional research on the relationship between officer training and suicide needs to be conducted to identify characteristics of effective training programs.

Support was found for the third hypothesis, namely, that jails that provide a less institutional, more comfortable, living environment for inmates tend to be less likely to report at least one inmate suicide. This suggests that the use of certain techniques to improve the atmosphere of the jail can be beneficial in terms of suicide reduction.

The list of jail characteristics used to measure the physical environment in this study was rather limited, and there are clearly more factors involved in jail design that could be important in terms of suicides. With this type of research, the ideal data collection method would involve observation of each jail participating in the study. Financial constraints as well as the practical constraints of gaining access to 150 jails prevented the researchers from conducting observations for this study. The researchers could, however, have requested additional information about the jail environment from the respondents, such as the design of the booking area and more detailed information about the design of the dayrooms and cells.

The number of inmate-inmate assaults was also associated with reported suicides. It should not be surprising that facilities that have less inmate stress brought about by violence or the threat of violence also have fewer suicides. As was noted earlier in this study, past research has found a relationship between inmate victimization and suicide (Blaauw et al., 2001; Liebling, 1993). Jails that are successful in preventing disorder in the form of inmate-inmate assaults appear to also successfully address suicide prevention issues. Future research should control for the types of inmates who are incarcerated in each jail, since one possible explanation is that the more violent jails are holding more violent and troubled inmates. One limitation to the dataset used for this analysis was the lack of classification information for inmates held in each jail. Additional information about the characteristics (such as race and gender) of inmates residing in each jail also might help to further explain which jails experience suicides and which do not.

❏ Conclusion

The finding of a relationship between the jail environment and reported suicides has important implications for jails nationwide. Neglect of certain aspects of the direct supervision model has the potential to contribute to the failure of the institution in creating a safe environment. Criminal justice agencies have a tendency to only partially implement successful programs that they wish to emulate. The podular direct supervision model has been recognized by researchers and practitioners as being a promising design and management strategy. Some of the characteristics of this jail, however, are expensive and politically controversial. For example, those involved in the design of the new jail might be concerned that by designing a non-institutional environment, they will be accused of coddling inmates. The political success of get-tough sheriffs nationwide is widely known among criminal justice personnel. County-level decision-makers need to understand that not including certain aspects of the direct supervision jail model will likely reduce its effectiveness in suicide prevention. This reluctance to follow through with the principles of direct supervision can result in its failure if a well-publicized security incident (including suicide) occurs in one of these institutions. Unfortunately, members of the media and politicians reacting to such an incident are unlikely to make the distinction between a poorly implemented direct supervision jail and one that is being run properly.

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