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Short Communication

Rural Mental Health: Correctional Suicide Prevention

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Abstract
Suicide is a leading factor contributing to inmates' demise. Providing suicide prevention training to correctional officers can reduce inmates' suicide attempts. Through the empirical literature review, quantitative research, and regression analysis, the critical time, myths, manipulative patterns, warning signs, and strategies for confronting inmates' suicide attempts are introduced.

Keywords: Inmates, suicide prevention, correctional training

1 Introduction

Suicide is the main factor prior to heart disease contributing to inmates' deaths from 2000 to 2013 (Noonan, 2015). In 2013, one third of deaths among inmates were caused by suicide (Noonan, 2015). There is a pressing need to offer correctional suicide prevention. Facilitating correctional suicide prevention can reduce 50% of suicide rates in American jails and prisons (Hanson, 2010). Equipping correctional officers with suicide prevention training can help them identify crises and suicidal symptoms (Pompili et al., 2009). Correctional intake officers who are equipped with suicide training and assessment skills can better conduct accurate suicide screening interviews and crisis interventions to confront inmates' suicidal ideation and reduce impacts derived from suicide events before the further escalation of behaviors (Ramluggun, 2011).

2 Critical Time of Correctional Suicide

Individuals often experience significant impacts of the crisis after being arrested (Cummings & Thompson, 2009; Pompili et al.). Experiencing a stressful crisis caused by imprisonment often contributes to high risks of self-harming behaviors (Cummings & Thompson, 2009; Pompili et al.). Acute stress tends to result in suicide attempts, which often occurs within 24 hours of admission to a prison (Frottier, Koenig, Seyringer, Matschnig, & Fruehwald, 2009; Pompili et al.; Ramluggun, 2011). This is especially evident with the sentence of life imprisonment, death penalty, or awaiting sentencing (Ramluggun, 2011; Suto & Arnant, 2010). Constant suicidal thoughts would result in inmates' fatal suicide attempts when there is a lack of treatment (Cummings & Thompson, 2009). Correctional officers and clinicians should pay attention to the critical time to reduce suicide attempts among inmates (Frottier et al., 2009).

3 Confront Myth of Suicide among Inmates

Reports of suicide in prison tend to be lower than actual cases because individuals who passed away in a hospital following a suicide attempt might be reported as a case of death in the hospital instead of a correctional facility (Suto & Arnant, 2010). Pompili et al. noted that inmates often are reluctant to seek counseling due to a fear of being labeled as "crazy criminals"; therefore, some would offer false positives during screening interviews to avoid being identified with mental disorders. Conducting screening intake interviews can prevent suicide attempts and self-harming behaviors (Hanson, 2010). Correctional clinicians and reception officers can reduce risks of false positives by reviewing inmates' clinical profiles and conducting cautious suicide evaluations with a standardized checklist and structured questionnaire. Researchers further noted that individuals under suicide watch would demonstrate fake improvements in order to be removed from the watch. Correctional officers should continue to vigilantly observe inmates with fluctuating suicidal thoughts (Pompili et al.).

4 Confront Suicide Signs in Correctional Facilities

Correctional officers, who interact closely with inmates, have better opportunities to detect suicide warning signs for preventing inmates' suicide attempts (Cummings & Thompson, 2009). Researchers noted that social and environmental attributes often influence correctional suicide incidents (Fazel, Grann, Kling, & Hawton, 2011; Frottier et al.). Social attributes, such as having no cellmate and disconnecting from a significant partner often aggravate correctional suicide attempts (Frottier et al. & Hanson,

2010). Environmental factors, including inadequate psychiatric care and lacking counseling treatments, tend to contribute to correctional suicidal ideation (Cummings & Thompson, 2009; Frottier et al.). Other warning signs include life stressors related to imprisonment, suicide plans, suicide histories, crying, perpetual insomnia, restlessness, giving away personal possessions, withdrawn symptoms, unexpected bad news from the court, sudden loss of a spouse or partner, depressive symptoms and feelings of hopelessness, and oddly making phone calls to most family members in one day (Cummings & Thompson; Hanson, 2010; Pompili et al.; Suto & Arnant, 2010). Severe physical pains could increase individuals' suicidal ideation (Peng et al., 2010). Asian individuals' severe physical pain would disclose warning signs of high levels of depression, anxiety, or suicidal ideation (Lee, Tsai, Luo, & Tsay, 2010).

Placing inmates with suicidal ideation in a shared cell may increase their suicide attempts because they may have more opportunities to access lethal instruments in a shared cell compared to a single cell (Pompili et al.). Placing suicidal inmates in a single cell with covered pipes, rounded corners, and camera observation can keep them from suicide attempts (Peng et al., 2010). Peer suicide observation among inmates could save up to $300,000 annually of correctional officers and nurses' overtime pay. Peer observation provides opportunities for inmates to support their cell mates (Junker, Beeler, & Bates, 2005).

Reducing the ratio between on-duty officers and inmates would allow officers better opportunities to observe and detect inmates' self-harming behaviors. However, it might increase taxpayers' bills to cover overtime pay of correctional officers. Offering Cognitive Behavioral Therapy (CBT) to correctional officers for enhancing suicide prevention would be a cost-effective strategy to confront inmates self-harming behaviors. Counselors can explore how various factors affect inmates' stress and adjustment during imprisonment because individuals' thinking patterns, maladjustments, and cultural issues would affect mental health (Beck, 1995).

A death caused by a suicide attempt would become an unresolved issue impacting inmates, correctional settings, juristic systems, and society. The suicidal death of an inmate might become a myth because no family member or cellmate related to the deceased person could prove that the death was not related to the correctional environment. The impact and cost of investigation, media influences, and trauma effects related to the aftermath would not only consume taxpayers' money but also would damage relationships between correctional officers and inmates. After a suicide incident, correctional officers would be asked to take more responsibilities in preventing inmates' suicidal attempts, and inmates would have grievance towards being monitored by correctional officers. Offering aftermath debriefing can reduce stress, frustration, and guilt following inmate suicide incidents. Counselors can offer debriefing to responding inmates, correctional staff, and families of inmates who committed suicide to reduce the aftermath impacts and trauma (Hanson, 2010; Pompili et al.). Conducting debriefing in the correctional facility after a suicide attempt not only can reduce trauma, but also can prevent further suicide attempts and reduce additional costs derived after a suicide incident.

5 Manipulative Factors beyond Suicide Ideation

Offering training to correctional officers can increase their awareness towards unique characteristics of incarcerated populations and equip officers with knowledge to confront self-harming behaviors that are related to manipulative patterns. Not receiving treatments after self-harming behaviors tends to result in inmates developing manipulative suicidal patterns by continuing to harm themselves as a way to increase their sensations of experiencing being alive through physical pain (Cummings & Thompson, 2009; Ramluggun, 2011). Inmates with self-harming behaviors often are moved to a single cell room or a correctional hospital for suicide watch. Individuals who experience high anxiety and lack coping skills to live with gang members in a shared cell would carry out suicide attempts (Hanson, 2010). Some individuals utilize self-harm as a manipulative pattern to be removed from a shared cell (Hanson, 2010). Individuals with self-harming behaviors should receive mental health treatment regardless of their tendencies towards malingering or manipulation (Cummings & Thompson, 2009). Correctional clinicians should consider individuals with fluctuating suicidal thoughts as having risks of committing suicide rather than having patterns of manipulation because self-harming behaviors could be fatal and life threatening (Pompili et al., 2009; Ramluggun, 2011). Clinicians and correctional officers can work together to evaluate procedures of correctional suicide watch and facilitate treatments for self-destructive thoughts to confront impulsive suicidal behaviors and manipulate patterns (Cummings & Thompson, 2009; Junker et al., 2005).

6 Purpose Statement

Empirical data were used for the purpose of educating correctional officers on suicide prevention. Researchers suggested that CBT serves as an effective intervention to confront inmates' suicidal ideation (Daigle, 2007; Daniel & Fleming, 2005; Skogstad, Deane, & Spicer, 2006). It is our goal that correctional officers can use CBT to confront inmates' suicidal triggers and self-harming patterns to prevent those behaviors from escalating.

7 Methodology

Quantitative research serves as the foundation for assessing and facilitating effective interventions (Fowler & Chanmugam, 2007). Quantitative experiments allow researchers to examine current conditions and cause-effect outcomes and offer statistical findings for future implications (Gay, Mills, & Airasian, 2006; Manuel, 2009). Empirical research provides valuable results and knowledge of a particular population or topic (Fowler & Chanmugam, 2007).

7.1 Research Design

The quantitative research and the linear regression method were employed to analyze how predictor variables influence inmates' suicide attempts for the purpose to reduce suicide attempts through managing predictor variables. Regression design allows researchers to examine the combined relationships of predictor variables and how each predictor variable affects the outcome variable (Creswell, 2011). The linear regression design was employed to examine whether the screening assessment, emotional disturbance, staff training, and suicide prevention would reduce inmates' suicide attempts. The reliability analysis, frequency analysis, and linear regression were used to investigate relationships between predictor variables and the outcome variable. Four predictor variables include a) screening assessments, including mental disorder screening intake, psychological assessments, and suicide risk intake, b) prescribed psychotropic medications; c) staff training, and d) suicide prevention teams. The outcome variable was defined as inmate suicide attempts.

7.2 Samples

Four-group using linear regression analysis with a total sample size of 72 is effective for different hypothesis tests with alpha (α) at the .05 level of significance and with statistical power at 0.7. The valid samples with complete data of 72 out of 79 correctional facilities were examined for correlations. The samples from the four groups of the screening assessment,

emotional disturbance, staff training, and suicide prevention were analyzed under a large effect size of 72 subjects (Gall et al., 2003).

7.3 Data Collection and Analysis

We analyzed the data from Inter-university Consortium for Political and Social Research (ICPSR). This data was collected by the United States Bureau of Justice Statistics (BJS) for the purpose of conducting the Annual Survey of Jails (ASJ). The administrators of BJS mailed a self-enumerated questionnaire to 86 correctional facilities and received 79 responses through mailing and follow-up phone calls. This self-enumerated questionnaire consisted of two sections with 17 groups of questions in total. Participants answered a sum of 245 variables, including demographic questions in this self-enumerated questionnaire. Cronbach's alpha and linear regression are used to analyze the data. Cronbach's alpha was employed to test the correlation of the group of screening assessments to ensure the internal consistency.

8 Results and Discussions

A result higher than .6 of the Cronbach's alpha defined a strong reliability of internal consistency (Gall et al., 2003). The variables of a) mental disorder screening intake, b) psychological assessments, and c) suicide risk intake were analyzed. The results of Cronbach's alpha of the reliability analysis of this group was .66 as shown in Table 1. This result indicated a strong internal consistency between these three predictor variables (Gall et al.). The reliability consistency between data enhanced the accuracy and interpretation of research results (Bogdan & Biklen, 2003). This result enhanced the validity of interpreting that these three screening assessments could work together to reduce inmates' suicide attempts. The results of the model summary of linear regression analysis as shown in Table 2 met the significant value that was less than .01 (Field, 2009). This result was significant and valid for us to examine and predict the outcome variable. This result further indicated that conducting suicide prevention for inmates significantly reduced suicide attempts.

Based on the results of linear regression as shown in Table 3, all predictor variables were negatives when the outcome variable (attempted suicide) was 1.0. This indicated a pattern of a negative correlation between all predictor variables and the outcome variable. The results indicated a pattern that an increase of predictor variables tended to reduce the number of the outcome variable—suicide attempts. Based on the findings, we can predict that conducting screening assessments, prescribed psychotropic medications, staff training, and suicide prevention can reduce suicide attempts of inmates. The results further indicated that a combination of screening assessment, prescribed medication, staff training, and suicide prevention can reduce inmates' suicide attempts. Based on the results, the suicide attempt was the lowest number (-.3) when suicide prevention was 1.0. This result indicated a tendency that conducting suicide prevention is the most effective way to reduce inmates' suicide attempts compared to the screening assessment, prescribed medication, and staff training. Based on the frequency analysis as shown in Table 4, we examined the number of inmates' suicide attempts in each correctional facility. We decided to include an outlier with the highest number of 37 suicide attempts in a particular correctional facility in this study because the outlier reflected a fact that should not be ignored or excluded from the study. This particular facility offered all three screening assessments as listed in Table 1, but did not offer suicide prevention. Based on the results, we recommend that counselors and correctional officers advocate and facilitate suicide prevention programs for inmates to reduce suicide attempts.

Based on the findings, a pattern was shown that conducting screening assessments, prescribed psychotropic medications, staff training, and suicide prevention programs could reduce inmate suicide attempts. This finding brought to light the need to propose correctional training by using CBT for helping correctional officers probe and confront inmates' suicidal thoughts, self-harming patterns, and emotional disturbances. Counselors and correctional officers can work together to design screening assessments and suicide prevention training to correctional officers to enhance their detecting and confronting inmates' suicide ideation.

9 Conclusion and Implication

After reviewing current literature and analyzing results of the study, we confidently predict that providing CBT training can enhance correctional officers' knowledge, strategies, and techniques of conducting screening interviews and identifying inmates' suicide warning signs. CBT is a short-term and structured therapy for treating various symptoms including major depressive disorders (Beck, 1995). CBT serves as an essential therapy to alleviate clients' current symptoms and modifying dysfunctional cognitions (Beck, 1995). Through receiving CBT training, correctional officers will be capable to identify inmates' disturbing emotions, suicidal thoughts, and self-harming patterns in order to evaluate suicidal ideation, confront suicide attempts, and make referrals to clinicians. CBT training not only can help correctional officers gain competence to address inmates' suicide ideation, manipulative patterns, and suicide warning signs, but also can reduce costs and efforts of aftermath management. Connecting community programs, psychoeducational workshops, and religious services to inmates can further enhance their adjustment and mental health during their imprisonment.

Facilitating educational workshops can increase inmates' willingness to seek counseling and assistance for mental wellness (Hanson, 2010). Establishing open communication systems can reduce correctional suicide rates (Hanson, 2010). Connecting community programs with inmates can enhance social support and mental health to prevent inmates' self-harming behaviors (Pompili et al., 2009). Providing religious services and study groups can reduce inmates' stress and enhance their spiritual support in dealing with the acute stress caused by imprisonment.

10 Future Research

Researchers and counselors can explore inmates' self-harming and malingering factors in order to help correctional officers detect and confront inmates' suicide attempts (Cummings & Thompson, 2009). Researchers and counselors can explore how culture and ethnicity affected correctional suicide attempts to understand the complex process influencing suicide attempts (Suto & Arnant, 2010). Researchers can examine and predict the correlation between suicide warning signs and cultural issues or ethnic differences in correctional facilities.

11 Limitations

The research was conducted through a self-enumerated questionnaire that was mailed to correctional facilities. Participants of the study might not be honest in reporting to the self-enumerated questionnaire, which might affect results and reduce the validity of the data collection and analysis. The questionnaire was administered by the researchers without providing any clarifying information to the participants prior to survey completion. This would reduce the validity of the data collection. Furthermore, researchers

did not conduct interviews with the participants for observing or assessing the accuracy of self-reports, which would decrease the validity and reliability of the results in the study.

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Table 1. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	*N* of Items: 3
.660	.664	Q24.1, Q24.2, Q25.1

Note. Q24.1: Screen inmates at intake for mental disorders; Q24.2: Conduct psychiatric or psychological evaluation and assessments; Q25.1: Assessment of risk at intake.

Table 2. Model Summary of Linear Regression Analysis

Model	*R*	*R* Square	*SE* of the Estimate	*F* Change	*df*1	*df*2	Sig. *F* Change	Durbin-Watson
1	.300	.090	.222	6.929	1	70	.010	1.863

Note. Predictors: (Constant); Q25.6: Inmate suicide prevention teams
Dependent variable: Attempted suicides while confined count flag.

Table 3. Correlations of Linear Regression Analysis

		Q9.c	Q24.1	Q24.2	Q24.5	Q25.1	Q25.2	Q25.6
Pearson Correlation	Q9.c	1.000	-.115	-.205	-.161	-.114	-.145	-.300
	Q24.1	-.115	1.000	.417	.018	.483	.237	.167
	Q24.2	-.205	.417	1.000	.294	.342	.238	.206
	Q24.5	-.161	.018	.294	1.000	.159	.219	.139
	Q25.1	-.114	.483	.342	.159	1.000	.456	.166
	Q25.2	-.145	.237	.238	.219	.456	1.000	.111
	Q25.6	-.300	.167	.206	.139	.166	.111	1.000

Note. Q9.c: Attempted suicides while confined count flag; Q24.1: Screen inmates at intake for mental disorders; Q24.2: Conduct psychiatric or psychological evaluation and assessments; Q24.5: Prescribe, distribute, or monitor the use of psychotropic medications to inmates; Q25.1: Assessment of risk at intake; Q25.2: Staff training in risk assessment/ suicide prevention; Q25.6: Inmate suicide prevention teams.

Table 4. Descriptive Statistics of Frequency Analysis

	n	M	SD	SE	95% CI	
					Lower Bound	Upper Bound
0	64	1.45	.532	.067	1.32	1.59
1	8	1.50	.535	.189	1.05	1.95
2	2	1.50	.707	.500	-4.85	7.85
3	1	2.00	.			
5	1	1.00	.			
10	1	1.00	.			
13	1	2.00	.			
37	1	1.00	.			
Total	79	1.46	.526	.059	1.34	1.57
Model Fixed Effects			.535	.060	1.34	1.58
Model Random Effects				.060a	1.31a	1.60a