

ORIGINAL PAPER

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Suicide in prison: a study of France from 1852 to 1913

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Abstract Prison suicide rates in France from 1852 to 1913 were strongly correlated with the overall male suicide rate in France. Measures of domestic social integration were associated with both of these suicide rates, but were less successful in accounting for the prison suicide rate than the overall male suicide rate.

Introduction

When scholars study "society" they often omit the study of those in societal institutions. For example, when citizens urge the reduction of societal violence by long-term incarceration of violent offenders they ignore the fact that prisons are very violent places (Toch 1977). The violence in prisons is not viewed as relevant to society.

Violence is common in prisons. Lester (1986) calculated a suicide rate of 24.6/100,000/year in prisons in the USA, and a murder rate of 29.4. For those sentenced to death the rates were 146.5 and 73.3, respectively, despite the precautions taken with prisoners on "death row."

Theories on the high suicide rate in prisons range from those which focus on the psychopathology of the inmate (such as the degree of psychiatric disturbance) to those which focus on the influence of the stress of institutionalization (such as length of sentence and the stress of recent incarceration and unforeseeable release). However, virtually no research has tested potential theories of inmate suicide (Lester and Danto 1993).

For violence in large societies there are theories that predict, sometimes correctly, which social characteristics are associated with rates of personal violence. For example, Durkheim (1897) proposed that the suicide rate of a society is associated with the level of social integration (the degree to which the members of the society are bound

together in social networks) and the level of social regulation (the degree to which the desires and behavior of the members of the society are governed by social norms and customs). In accordance with Durkheim's theory measures of social integration such as divorce rates are correlated with both suicide and homicide rates across the USA (Lester 1988). Some scholars view such an association as indicating that divorce has a direct impact on suicide rates via the increased suicide rate among the divorced. Other scholars, however, view a social variable such as divorce as an indicator of some broader, more general, social characteristic (Taylor 1990). For example, it is found that the regions with higher divorce rates have higher suicide rates for the single, the married, and the widowed, as well as the divorced (Lester 1993). Furthermore, several social variables were strongly correlated over the regions (including high divorce and migration rates, low church attendance, and high alcohol consumption), suggesting that these social variables were connected to a more abstract societal quality, perhaps social integration, as conceived by Durkheim (1897) in his classic theory of suicide.

This raises the question of whether suicide rates in a segment of society such as prisons show similar correlations to those in broader social settings. The fact that suicide rates are associated with some measures of domestic social integration such as high divorce rates and low birth rates, as Durkheim (1897) argued, prompted the present study to explore also whether suicide rates in French prisons show a similar response to domestic social integration. The hypothesis tested was that the suicide rate in French prisons shows a similar pattern of associations with the social characteristics of the society (particularly the marriage and birth rates), as does the suicide rate of the general population. (Unfortunately, the data sources did not provide divorce rates for the period studied, so divorce rates could not be included in the data).

Method

Data were available for France for the period 1852–1913. Prison suicide rates for French prisons were available from Bernheim (1987), and male suicide rates for France as a whole were from Chesnais (1976). The male suicide rate for the general population was used rather than the total suicide rate, because the vast majority of prisoners are male. The choice of social characteristics for study was limited by the availability of time-series data. Two measures of family social integration were utilized: the marriage rate per 1,000 population and the legitimate birth rate per 10,000 women, aged 15–44 years (Flora 1987). These variables make sense, because a high marriage rate implies a high level of familial social integration, and only the legitimate birth rate would be a measure of high familial social integration.

The time-series data were analyzed with a statistical package from Doan (1990) using the Cochrane-Orcutt (1949) method to correct for serial autocorrelation in the data set.

Results

The French prison suicide rate and the French overall male suicide rate were strongly correlated for the period 1852–1913 (Pearson $r = 0.71$; two-tailed $P < 0.001$). In the time-series regression for the French overall male suicide rate the impact of the marriage rate was positive and statistically significant (see Table 1, where both unstandardized [b] and standardized [β] regression coefficients are reported), and the impact of the birth rate was negative but not statistically significant. For the prison suicide rate the impact of the marriage rate was positive but not statistically significant (Table 1), and the impact of the birth rate was negative and statistically significant. The variance accounted for (R^2) was greater for the French overall

Table 1 Regression analyses for the French prison suicide rate and the overall male suicide rate (1852–1913). b unstandardized regression coefficient; β standardized regression coefficient

	Prison suicide rate		Overall male suicide rate	
	b	β	b	β
Constant	195.33*		47.60*	
Marriage rate	2.44	0.044	1.31*	0.077*
Birth rate	-8.49*	-0.814	-0.25	-0.117
R^2	0.65		0.98	

* Two-tailed $P < 0.001$

male suicide rate (0.98) than for the prison suicide rate (0.65).

Discussion

From the results of these analyses it appears that the suicide rate in French prisons from 1852–1913 fluctuated in tandem with the French overall male suicide rate during that period. Furthermore, both male and prison suicide rates were correlated in the same way with two indicators of domestic social integration, the marriage and birth rates.

There were, however, differences. The two measures of domestic social integration did not account for as much of the variance in the prison suicide rate as in the overall male suicide rate. Furthermore, the statistical significance of the two measures of domestic social integration differed for the two suicide rates. However, the study indicated support for the hypothesis that the suicide rate in prisons may respond in a predictable way to the social characteristics of the larger society, and they may not be entirely predictable from imprisonment variables alone.

References

- Bernheim JC (1987) *Les suicides en prison*. Editions du Meridien, Montréal, Quebec, Canada
- Chesnais JC (1976) *Les mortes violentes en France depuis 1826*. Presses Universitaires de France, Paris
- Cochrane D, Orcutt GH (1949) Application of least squares regressions to relationships containing autocorrelated error terms. *J Am Stat Assoc* 44: 32–61
- Doan TA (1990) *Regression analysis of time series*. Var Econometrics, Evanston, Illinois
- Durkheim E (1897) *Le Suicide*, Felix Alcan, Paris
- Flora P (1987) *State, economy, and society in western Europe 1815–1975*. St. James Press, Chicago
- Lester D (1986) Suicide and homicide on death row. *Am J Psychiatry* 143: 559
- Lester D (1988) A regional analysis of suicide and homicide rates in the USA. *Soc Psychiatry Psychiatr Epidemiol* 23: 202–205
- Lester D (1993) The influences of society on suicide. *Qual Quant* 27: 195–200
- Lester D, Danto BL (1993) *Suicide behind bars*. Charles Press, Philadelphia
- Taylor S (1990) Suicide, Durkheim, and sociology. In: Lester D (ed) *Current concepts of suicide*. Charles Press, Philadelphia, pp 225–236
- Toch H (1977) *Living in prison*. Free Press, New York