

A PUBLIC HEALTH APPROACH TO SUICIDE ATTEMPTS ON A SIOUX RESERVATION

BETTY J. CLAYMORE, PhD

ABSTRACT. An analysis of 72 Indian Health Service (IHS) medical records of suicide attempts and completions covering a 1-year time span on a Sioux Indian reservation is made using a 41-item protocol. Medical records provide significant data to develop attempter profiles, identify high-risk groups, determine high-risk days and months, and identify methods of attempts and other data useful to developing focused intervention plans.

The purpose of this study was to prepare a profile of suicide attempters on a Sioux Indian reservation and to identify associated factors and events so that tribal and governmental resources can be focused on them in efforts to reduce typically high rates. A secondary purpose was to demonstrate that Public Health Service medical record data can be readily accessed to design planned interventions. This study was also intended to provide baseline data by which to measure effectiveness of future intervention strategies in reducing suicide attempts and completions.

Background

The literature describes various approaches to reducing suicide attempts and completions. Many common methods have not proven to be effective. These include hotlines (Bridge, 1977), suicide prevention centers (Kiev, 1971), and suicide education (Stuart, 1974). Individual counseling shows mixed reviews (Lester, 1974; Shore, Bopps, Waller, & Dawes, 1972). More successful approaches appear to be those which restrict behaviors, such as firearm laws (Geisel, Roll, & Wetlick, 1969) and other ways of reducing access to lethal means of self-inflicted death (Hassall & Trethowan, 1972). None of these methods address patterns of culture and lifestyle and their impact through time on sustaining and reinforcing negative behaviors. This trend persists despite common recognition that various tribes maintain or periodically repeat suicidal behaviors while others are virtually suicide free. There appear to be both random events and national norms for suicide. There are, however, local factors that characterize particular communities that are subject to change, and which can be altered to intervene on behalf of their members.

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The Problem

A Sioux reservation in the Aberdeen Area serviced by the Indian Health Service has had a high rate of suicide documented by federal agencies for at least 20 years. Using a 3-year composite for this small population, the current suicide rate (1981-83) is 66 per 100,000. The crude incidence rate of attempts for fiscal year 1986 is 1,281 attempts per 100,000. The suicide rate is 53.4 per 100,000. (See Figure 1 for a comparison of age-adjusted rates).

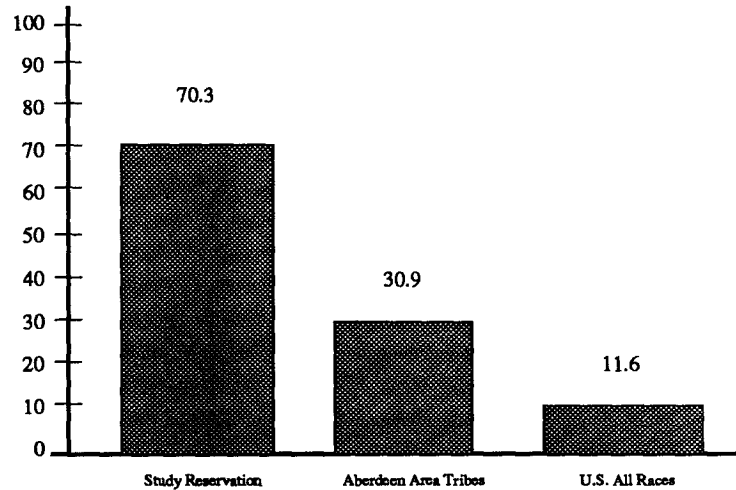


Figure 1. Suicide age-adjusted rates per 100,000 (1981-1983) of a Sioux reservation in the Aberdeen Area.

From October, 1985, through September, 1986, 72 attempts and 3 completions occurred among the 5,620 tribal members. The tribe became concerned that they were experiencing inordinate numbers of attempts among young teenagers (13-15 years) and asked for assistance in developing data which would help their tribal task force effectively address the problem (Figure 2).

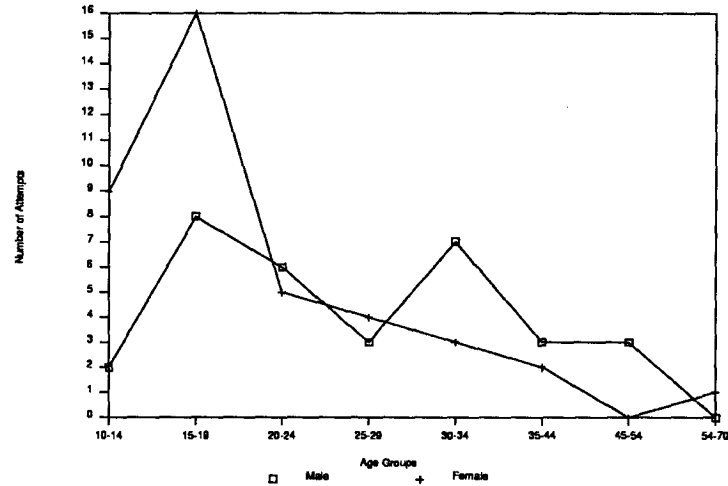


Figure 2. Number of suicide attempts by age and sex (October, 1985 - September, 1986).

Method

Indian Health Service medical records were reviewed to obtain demographic, medical, and subjective information such as previous attempts and precipitating events. It was recognized that the tribe might wish to obtain additional data later if insufficient data was found in the charts to be of value to the tribal intervention plan. Charts selected for review were identified from emergency room logs, interviews of medical staff, and cross-referencing with referrals to the mental health program. The first 5 months of data were obtained by a researcher assisted by a Centers for Disease Control public health advisor. An additional 7 months of data were extracted by a mental health staff member.

Results

The most significant result was that all teenage males utilized hanging as a common method and all three of the previously mentioned completions occurred by hanging. Female attempts were predominantly overdoses; after age 20 male attempts also involved overdosing. Medication overdoses were both prescription and over-the-counter, varying greatly in type and dosage. In contrast to national norms, within this population females attempted suicide only slightly more frequently than males. Thirty-nine percent of these individuals had previous attempts. Twenty-nine percent of the attempts occurred on Wednesdays. Most

of this population lived most of their lives on this reservation, having been born at the local hospital. Precipitating events varied and appeared to be multifactorial. They included faulty relationships, custody anxieties, personal disappointments, and chronic alcohol problems. Sixty-four percent of the attempts were associated with some use of alcohol. Major peak periods of attempts were in December and then again in April/May. Attempts did not appear to be correlated with weather patterns. Thirty-nine percent had been seen previously by mental health staff and 33% had some form of chronic medical problem. Forty-two percent of the attempters were students. Many attempts were impulsive in nature and suggested by other recent attempts. The average age was 23.5 years with 16 years being the modal age. Hospitalization was required in 39 of 72 attempts. All the attempters received counseling by the local mental health program staff.

Discussion

Sufficient data can be obtained from Public Health Service medical records to learn important facts regarding suicide attempts and to implement interventions. However, the medical record is a poor source of information on completions since there is little routine information gathered on those who are dead upon arrival to the unit of care. Psychological autopsies need to be completed to obtain additional data. The uniqueness of each tribe's data can be a key to focused intervention. Crisis intervention models should include immediate and specific approaches to thwart suicidal behaviors and methods, to provide diversionary activities, and to reduce social tensions. Long-term intervention/prevention strategies should consider suicidal behaviors within tribes as intergenerational issues and develop plans for improving self-esteem, enhancing coping mechanisms, changing perceptions, and learning alternative behaviors in order to interrupt recurring patterns of destruction. Like emphasis needs to be placed upon family life improvement and positive community development.

Communities and tribes who wish to use a public health approach to reduce attempts and/or reduce suicides can take direction from some of the following suggestions:

1. Develop baseline data with a minimum of 3 years information for completions. Develop data on attempts for 2 to 3 years.
2. Study this data for unusual patterns. There are national normative aspects of suicide. One may observe random individual acts but there are also unique patterns in reservation suicide statistics which reflect the influence of contemporary social forces. The patterns vary from time to time and are amenable to change by a society/tribe which wishes to intervene on behalf of its

members. Examples of such patterns include the observation that in this community, one third of the attempts were made on Wednesdays and that all teenage males at one location attempted suicide by hanging.

3. Once the patterns are identified, tribal task forces may formulate intervention plans to prevent or alter the behaviors. Internationally, the most effective method of reducing suicide has been shown to be to interfere with the most popular means of killing oneself. In England, for example, when carbon monoxide was removed from coal gas, which was intended for household cooking and often used for suicide, the overall decline in the suicide rate was more than 50% (Hassall & Trethowan, 1972). The suicide rate decreased in San Francisco after the Golden Gate Bridge was fenced. Tribes may presume that if the most popular method is not available, then attempters will find another way to kill themselves. This assumption has not proven to be correct. Many suicides and attempts are impulsive acts; if the means as perceived are not available, there may be no subsequent attempt. In the Aberdeen Area, the majority of attempts are by overdoses on readily available medications. Restricting access to medications by high-risk individuals and especially previous attempters may avert additional attempts.

4. Lastly, communities should commit to monitoring and evaluating interventions by maintaining careful and accurate statistical data.

Aberdeen Area Indian Health Service
Federal Building, Room 309
Aberdeen, South Dakota 57401

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References

- Bridge, T. P. (1977). Suicide prevention centers. *Journal of Nervous and Mental Disease*, 164, 18-24.
- Geisel, M. S., Roll, R., & Wetlick, R. S., Jr. (1969). The effectiveness of state and local regulations of handguns: A statistical analysis. *Duke Law Journal*, 647-676.
- Hassall, C., & Trethowan, W. H. (1972). Suicide in Birmingham. *British Medical Journal*, 1, 717.
- Kiev, A. (1971). Suicide prevention centers fail to reach high-risk cases. *Frontiers of Psychiatry*, 1(11), 3.

- Lester, D. (1974). Effects of suicide prevention centers on suicide rates in the U.S. *Health Service Reports*, 89, 37-39.
- Shore, J. H., Bopps, J. F., Waller, T. R., & Dawes, J. W. (1972). A suicide center on an Indian reservation. *American Journal of Psychiatry*, 128, 9.
- Stuart, R. B. (1974). Teaching facts about drugs: Pushing or preventing. *Journal of Educational Psychology*, 66, 189-201.

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