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# Suicide: With Special Emphasis on Saline County

by

Thomas P. Kleinkauf

## A THESIS

Presented to the Faculty of The College of Medicine in the University of Nebraska In Partial Fulfillment of Requirements For the Degree of Doctor of Medicine

Under the Supervision of Margaret H. Peterson, M.D.

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#### INTRODUCTION

Suicide is a phenomenon that has been studied and discussed in great detail before and since Durkheim made his classic sociologic study on the subject late in the nineteenth century. In his work Durkheim made the classic outline of methods for the study of suicide which have been tested and confirmed by later students. With what is known about the subject one can predict many characteristics about suicides in a population. Some of these characteristics include the sex, marital status, age, ethnic background. religious confession, methods of suicide, and preferred time of year for suicide. Population studies are valuable in that they describe the groups at risk, but at the same time they reduce the individual suicide to anonymity. The individual suicide is not an anonymous person however, and one must ask why one particular individual with a given background will commit suicide under certain circumstances and a similar individual, when faced with similar circumstances will not. This is the answer now commonly sought by people studying the subject.

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#### STATISTICAL DESCRIPTION

When studying suicide in a community one must be aware of certain factors which tend to separate the population into groups of relative risk. Attention must also be paid to factors which might alter the suicide rate in the community such as relative change in risk groups in the population. As an introduction to suicide in a community it is important to be aware of some of these factors.

Since Saline County is made up largely of people of Czechoslovakian descent it seems appropriate to consider ethnic background and suicide first. Suicide rates in Europe are not constant for all countries, but vary considerably from county to county, and while Slavs generally have a low suicide rate, the Bohemians and Moravians\* are exceptions.(1) It should also be noted that while all foreigners in the United States have high suicide rates the Czechs in America have a suicide rate of 31.5 per 100,000 which is the second highest of any foreign born in America.(2)

Religious confession is also considered important with death rates being much higher among Protestants than Roman Catholics and lowest among Jews.(1) Religious confession as a protective factor can be misleading however, because it seems that a high degree of religious integration in any denomintion is protective, and that apathetical religious convictions diminish religions protective value.

\*Bohemia and Moravia comprise most of modern day Czechoslovakia.

Sex is also an important consideration. It has been found that men kill themselves almost three times as frequently as women, but that women make about three times as many attempts as men.(3)

The age of the suicide is also important especially with regard to sex. In men suicide rates continue to rise from about eight per 100,000 at age 15 to 65 per 100,000 at age 85. In women the rate starts at about three per 100,000 at age 15, reaches a peak and levels off at age 50 with a rate of 10 per 100,000, and drops off to a lower rate after age 65.(2)

Culture is important as is relative cultural isolation. It has been found that in certain cultural groups suicide is more prevalent than in others. An isolated culture has less intercourse with the outside and is exposed to fewer different ideas and therefore things done in past years seem more likely to be repeated.(1) This is most evident when one studies the basic cultural unit, the family. In families which have had suicide in the past one finds numerous examples in the literature of other family members imitating the act often using the same tree to hang themselves from, or the same gun with which to end their lives.

Methods of suicide are also important for when the modalities of suicide are examined it is found that one group prefers one method and that another group finds the

same method not to its liking. Women, for example, are more likely to poison themselves than to blow their brains out. Men, on the other hand, do not seem to be so concerned about their appearance and are more likely to use guns.(3) It should be pointed out that a person who poisons himself has a much better chance of surviving than one who shoots himself in the head. Without question this makes the attempted suicide rate for women, who prefer less violent methods, much higher than is found in men. It also raises the question as to whether or not some of these attempts are much more than a so-called "cry for help".

Another consistant finding in population studies is the preference of suicides for Spring and Summer months to kill themselves. This is especially true in rural Nebraska where one finds a trend of high rates in March through August but no such seasonal trend is found in the more urban Douglas County.(4)

The population factors of paramount importance in any general suicide study have been considered. Other factors which seem pertinent to this study as farm income and climatic conditions will also be noted.

#### THEORIES OF SUICIDE MOTIVATION

The factors outlined above make it possible to study most populations with regard to suicide. It is individuals who kill themselves however, and we ask what motivates a person

to commit suicide? Several people have tried to describe the suicide and his motivations and some of the more important theories of suicidal behavior will be considered.

Durkheim describes three major types of suicide, the altruistic, the egoistic and the anomic. The anomic suicide is an act performed by someone who is suddenly alienated from his peer group in regard to something of great importance which that group expects of him. When he cannot perform duties such as the moral or financial obligations expected of him he is driven to suicide.(1) One might consider suicides directly related to a financial crisis as anomic. The egoistic suicide is performed by an individual who is not hampered by the strong convictions of one who lives in a well integrated religious family and political society. He has not invested himself in these things and therefore his conscience is free to act uninhibited by taboos and traditions. The altruistic suicide is committed by one who is bound by the social group he lives in by such powerful rules that under certain circumstances he is obligated to kill himself. Examples of the this form of suicide appear in highly romanticized stories and mythology and very realistically in the modern examples one found in the Kamikaze pilots.(1)

Freud postulated several features in the mechanism of suicide. First of all he believed that the performance of suicide began with a death wish against another which was

ultimately directed against ones self. Other factors necessary for suicide included loss of love objects, narcissistic injury, overwhelming affect as rage, guilt or anxiety, or extreme splitting of the ego. He also described several personality types as being specifically predisposed to suicide most of which were concerned with alterations in basic personality structure and instinctual drives. Such a predisposed individual would then undergo sufficient stress as might be experienced by loss of a love object. His already weak ego defense mechanisms would fail him and he would become a suicide.(5)

Schneiderman is a modern student of suicide and he has prepared a different classification based on reasoning a suicide uses to bring himself to complete the act. He separates suicides into three groups: the logical, the paleological or pathologic, and the catalogical. The logical suicide is performed by an individual who has made no semantical errors and has no alienations in his reasoning. The paleological or psychotic suicide uses delusional and primitive reasoning. He might conclude that since death is suffering; I must die. Finally there are the catalogical suicides who are the victims of their own semantical errors. Schnetderman also points out that all suicides, however logical the reasoning, are themselves illogical acts reasoned from false premises.(6)

Noyes is one of the modern students of suicide who has

simplified the subject for purposes of early recognition, and describes the type of patient the physician must be alert to for preventative purposes. Such a patient may have strong identification with a hope of rejoining someone deceased, intense rage with avenues of expression blocked, be very impulsive, or have an inexpressible grief. Assessment of ther factors as previous attempts and supportive relationships are also held to be important.(7)

The previously mentioned classifications and theories on suicide are all useful in that they are adapted to different aspects of suicide. Durkheim's theory of motivation is best adapted to the more impersonal sociologic study. Freud was concerned with the personality of the suicide and his ideas form a base for the many psychoanalytic theories that have followed him. Scheiderman was more concerned with classifying individual reasoning to describe different types of suicide and Noyes presents a form for people concerned with the management of patients to follow. The ideas of these four men also reflect the changing emphasis in suicide study from the impersonal statistical evaluation to the personal considerations of preventing an individual from becoming a suicide. Today most investigators are concerned not with the description of suicide or the suicidal person, but rather mass intervention to prevent suicide. Today there are about 100 suicide prevention centers in the United States.(8) It should be noted, however, that know-

ledge discovered by earlier students of suicide forms a large part of the base for the more practical efferts of suicide prevention.

# DESCRIPTION OF SALINE COUNTY POPULATION 1938-1968

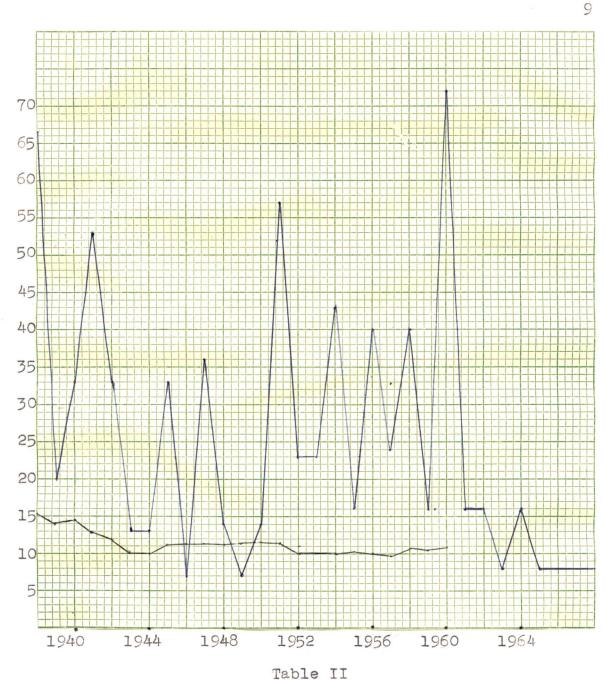
In the community to be examined several of the previously mentioned points concerning suicide risk groups and epidemiology will become apparent. Statistics on Saline County were obtained from The Bureau of Vital Statistics at The State Capital in Lincoln, Nebraska and from population statistics of The Fourteenth through Eighteenth Decennial Census of The United States. Suicide rates for Saline County are compared to figures other authors have prepared for the entire county.

	1920	1930	1940	1950	1960*
Total Population	16514	16356	15010	14046	12542
Czechoslovakia	1280	1226	836	542	2055
Germany	486	336	210	107	726
Russia	94	92	52	30	152
Canada	91	96	29	16	120

Table I

Population of Saline County, Nebraska with principle foreign populations listed.

\* In 1960 The Bureau of the Census did not note place of birth but rather people of foreign stock, meaning first and second generation descendants of foreigners. The figures noted in Table I for the year of 1960 indicate foreign stock, not foreigners.



Suicide rates in The United States compared with rates for Saline County, Nebraska. Ordinate indicates years. Abscissa indicates suicides per 100,000 population. Suicide rates for Saline County — Suicide rates for United States —

	Saline County			United States		tes
	Men	Women	Total	Men	Women	Total
Firearms and Explosives Poisons and Gasses	50 10.6	6.25 18.75	42.7 11.8	53.3 17.3	24.9 34.6	47.1 20.8
Hanging and Strangulation	34	62.50	39.1	20	22.6	20.5
Cutting and <b>Biercing</b> Instruments Drowning	1 2	0 12.50	1 3.5			2.6 3.7
Jumping from High Places Other	0 4	0 0	0 1.9	9.4	17.6	3.5 1.9

Table III

Percentage distribution of deaths from suicide by specific methods in Saline County from 1938 to 1968 as compared with methods used in The United States from 1955 to 1959.

Jan.	9	Apr.	16	July	12	Oct.	8
Feb.	6	May	7	Aug.	13	Nov.	6
Mar.	11	June	11	Sept.	5	Dec.	4

Table IV

Monthly suicides in Saline County from 1938 to 1968.

	Men	Women
Married	51	6
Single	22	2
Widowed	20	7
Divorced	l	l

Table V Marital status of men and women suicides in Saline County from 1938 to 1968.

Some effort will now be made to define another high risk group with regard to suicide. While the available statistics indicate that people of Czech background in Saline County have a marked predilection to suicide, they are not always as specific as one would desire. In the years 1938 through 1949 Nebraska Death Certificates indicated place of birth of both parents, but after those years only the birthplace of the deceased was named. In all years the place of interment of the deceased is named however, and The Bohemian National Cemetery is named on many of the Death Certificates. This is not meant to imply that all people of Czech descent from Saline County are buried there or that people of other descent are excluded, but natives of the area report that nearly all of the deceased in that **Cemetery** are of Czech descent.

Saline	e County	57
Czecho	oslovakia	23
Other	Nebraska	
	Counties	20
Other	States	10

Table VI Suicides by place of birth in Saline County from 1938 to 1968.

One or both from Czechoslovakia	34
Both from Czechoslovakia	28
Other foreign countries	4
Total suicides in these years	49
Suicides by people from	
Czechoslovakia in these years	14

## Table VII

Birthplace of parents of suicides for Saline County from 1938 to 1949. With total suicides and suicides by people from Czechoslovakia. Other evidence for a high suicide rate among Czech people is implied in that of the 62 suicides between 1950 and 1968, 32 of them were buried in The Bohemian National Cemetery. It is also interesting to note that suicide rates among people of Czech birth in the years 1938 to 1944, 1945 to 1954, and 1955 to 1964 were 124, 148, and 148 respectively. It is true that the specific population of suicides in Saline County born in Czechoslovakia is small, but the very magnitude of these suicide rates makes it significant. The last figure was based on the 1950 Census, but if the true Czech population were known the rate would probably be much higher.

Religion is one subject upon which statistics are not available. Reports from natives of the County however, indicate that the Czechs who immigrated to Saline County were, like the people of Czechoslovakiz, predominantly Roman Catholic. It is said too that one of the primary reasons of the Saline County Czechs for leaving Czechoslovakia was to escape the oppressive Catholic Church in Czechoslovakia. It is also said that most of the Czechs who came to Saline County became confessed atheists who were most prone to suicide. The Czech people who remained Catholic or who participated in other denominations were said to be much less prone to suicide.(11, 12, 13, 14)

From the statistical data and the subjective opinions of long time residents of Saline County it seems quite apparent that the groups with a high risk for suicide in Saline

County correspond to those previously mentioned. The numbers of Czechs in the County after 1930, when immigration to The United States from Czechoslovakia diminished and stopped, should be noted. As mentioned previously suicide rates for men rise steadily with age and do not come to a plateau as do rates for women. Since there has not been a significant immigration of Czechs to The United States for over 40 years one would expect to find an aging population. The fact remains, however that the population of Saline County was at most 7.8% Czech, and the Czech suicides comprised 21% of all the suicides from 1938 to 1968.

#### OBSERVATIONS ON SUICIDE IN SALINE COUNTY BY RESIDENTS OF THE COMMUNITY.

The above description of Saline County is as objective and impersonal as possible with available information. The suicides who comprise the statistics were, after all, individuals. It is necessary, therefore, to consider the individuals who committed suicide from what information is available. Since written records on the individual suicides are virtually non-existent, personal communications were obtained from two physicians, a former sheriff and deputy coroner, a mortician and a retired minister and instructor of sociology at the college in Saline County. All are longtime residents of the community. In addition, a psychiatrist, who has had referrals of suicidal patients from the two local physicians, confirmed the evidence obtained from the local citizens.

The subjective reports were not contradictory. They also correspond remarkably well with information obtained from trained investigators. The most lucid description was obtained from the retired sheriff who was in office from 1943 to 1967 and attended all suicides, accidents and homocides, and had a remarkable memory of the cases he attended.

All those interviewed described the Czechs as being by far the most prone to suicide. The Czechs who settled the community were said to be confessed atheists, fiercely independent, somewhat sullen, very proud, and of the peasant farming class.(11, 12)

The fact that suicide was more common in Saline County than in most communities did not seem to alter the feelings of the rest of the community towards it. It was, as is found in most societies, a taboo subject. The pattern, noted by Cain and Fast, of not discussing or talking about suicide with relatives of the deceased became quite apparent. This policy of avoiding the subject, and denying the family of catharsis and relief of some of their irrational guilt feelings was practiced here as it is in so many other places. (16) The newspapers also cooperated in quieting the subject. When a person committed suiciede they report that the person "died suddenly" or "unexpectedly", never mentioning suicide. The retired sheriff reported cases of apparent suicide which went on record as accidents because of lack of absolute proof. For example: A man parked his car on the railroad tracks in

view of the crew of an oncoming train, another man was found in the middle of a pasture with a gunshot wound in his chest. The sheriff also mentioned examples of people hiding suicide notes and otherwise trying to conceal the fact that one of their family had committed suicide.(11) The previously mentioned low number of suicides by poisoning leads one to wonder if other suicides have not been reported. In other communities teams of investigators including specialized case workers often uncover suicides in cases previously designated accidental death. (17) In San Francisco, a community with a high suicide rate about 99% of all unattended deaths are autopsied. These autopsies include toxicological studies for barbiturates, alcohol, and the heavy metals. (18) These communities are larger ones, however, with greater resources and suicide investigators who are rarely if ever known by the families involved. One can easily understand the dilemma of the sheriff of a small county with strong taboos against suicide but the fact remains that the true incidence of suicide in such a community might indeed be considerably higher if more complete investigations were made.

The Saline County Czechs have been described in general terms, but more description of the suicidal ones is needed. First one might ask what reasons were given for the act of suicide. As one might expect the reasons are variable, but from what has been reported ill health was said to be the most frequent reason for men. It seems that many of the sui-

cides could not accept poor health and did not want to live in a debilitated state. One note simply read "Ending my life due to bad eyesight".(13) Another case was mentioned in which the person was convinced that he had carcinoma of the stomach. He destroyed himself and no such disease was noted at autopsy.(11) It is interesting to note that health has been found significant in other suicide studies. Although it is not listed as a specific reason for suicide it has been found that about 50% of suicides in other studies had significant medical and/or surgical illnesses.(19) Other reasons included loss of property, money or a loved one. (11, 14) It seems that the people were unable to cope with personal losses which, though very significant might not be suficient stimulus for suicide in another group of people. The women who chose suicide were said to be, for the most part, menopausal or postmenopausal and very depressed.(11) From the description it would seem that most of the women were probably involutional. This is not surprising as this description corresponds quite well with the age group in which one would expect involutional depression and suicide in women. Previous to electro-convulsive therapy involutional depression ended in suicide up to 25% of the time. (20) A suicide note left by one middle-aged woman illustrates some of the feelings attributed to men and women suicides in the community but is most characteristic of women. The entire mood of the letter is that of despair and depression. She

indicates that there are four reasons for her to end her life: She thinks she is losing her mind, she is tired of ill health and suffering, she has lost some loved ones, and finally no one on earth understands how she feels. She also admonishes her husband not to think badly of her or feel sorry for her, but one is impressed by the note that she would appreciate a little pity.(11) When isolation, illness, and loss are considered together it seems that all led to depression which was something these people could not cope with in their lives. From a psychoanalytic approach, it would seem that some basic personality defect coexisted with poor ego defense mechanisms in these people.

It is also of interest that 82% of the suicides were committed with a rope or a gun. Questioning of the sheriff revealed certain rather consistent habits of these people, especially the Czech farmers. He said that most of the suicides were committed with an old rope or an old gun. He verified other peoples' contention that these people were frugal by explaining that these people realized that the rope or gun used in suicides would be disposed of afterwards. The most remarkable example of the frugal trait was seen in the case in which the victim had made his own shotgun out of an old pipe, some old boards, and some wire. He prepared a firing device with a broken hammer and reinforced the entire apparatus with strap metal and wire, and finally placed inner tube rubber over the end so it would not be uncomfortable as

he held it against his head.(11) Another interesting observation was that guns were generally pointed at the side of the head rather than at the front. The sheriff speculated that the people shot themselves in the side of the head because the services were open casket ceremonies and the victims "wanted to look good".(11) As can be noted in the statistics men used guns and women hung themselves in most instances. He said also, that women would often hang themselves from a door knob or a bedpost.(11) This practice would seem to indicate that once the decision to end their life had been made there was no question of hesitation as one often sees in the abortive attempts of other methods.

Other notable comments included the fact that suicide was often found in certain families. Two examples were given which illustrate this. In one case three brothers committed suicide and in another case the father, and later two sons killed themselves.(11)

#### POSSIBLE REASONS FOR THE ABRUPT DROP IN SUICIDE IN SALINE COUNTY SINCE 1961

As noted previously the suicide rate has fallen from an all time high of 72 per 100,000 in 1960 to an average of 11 per 100,000 from 1961 to 1968. It should also be noted that in the last four years the rate has been only eight per 100, 000. In view of the past history of Saline County this would appear to be very significant and probably an indication of some change or changes in the com-

munity.

Several sound reasons have been postulated for this change, and close observation tends to add substance to these ideas. The first and perhaps most obvious item which was pointed out was the fact that the original Czech immigrants have nearly all died. This is quite evident when the data in Table I is considered. It will be noted that there were only 542 Czechs left in 1950, and eighteen years have past between then and the end of the study. It should be obvious then that the group of highest risk, the Czechs, is no longer a significant factor in suicide.

Although the original Czechs are nearly all dead it would not seem unreasonable to assume that their descendants might be much the same in their predilection for suicide. The descendants of the Czechs are said to be different though in several aspects. Whereas their parents were said to be impulsive, proud, clannish, atheistic and very independent; the descendants are described as being more easy going, less independent, more sociable, less isolated, better educated, more religious, and more likely to seek help from a physician for depression and other ailments.(11, 12, 13, 14) Education seems to have done two things. The most obvious, of course, is that it has exposed the people to new ideas, but it has also taught the children English, which many of the older Czechs never learned. A very effective means of isolation has thus been broken down. Precise information on

church membership is not available, but church membership is said to have increased despite the fall in population in the community.(11, 12) The changing character of the Czech population is another postulate that is difficult if not impossible to document, but from descriptions of the residents it seems to be so. Whereas in the old days certain conversations and words at the taverns were said to have been conducive to a fight, today similar exchanges are said not to be offensive, but are considered humorous.(11) Economic conditions in the community are also said to have improved. Prosperity has been completely impossible to document as State and Federal Departments of Agriculture do not have farm income broken down by specific counties in the state.

Medical care and psychotropic drugs are also said to have been influential in lowering the suicide rate. The two local physicians interviewed stated that it was about 1960 when they began using these drugs. Phenothiazines and meprobamate, and later, diazepam were said to be used quite frequently. These physicians also said that they now make referrals to psychiatrists more often than they had done in previous years. It was also stated that in the past the people did not seek professional help for problems of depression, but this is not the case now.(14, 15)

One of the psychiatrists who had received referrals from these physicians was consulted as to his opinions for the drop in suicide in Saline County and his opinions

corresponded with those of the long-time residents of the area with regard to religion, changing attitudes in the new generation, psychotherapy, drugs, and willingness of the residents of the area to seek help for depression.(21)

The above mentioned factors all seem to indicate a changing population which has resulted specifically in a drop in suicide in a small Nebraska community. From descriptions of the individuals who composed the original highest risk group for suicide it would seem that the changes in the population have also brought about other beneficial traits in the people. From an isolated population which could not deal with their emotions the descendants of these people have evolved socially adaptable group. They can now actively participate in new interests, and are able to communicate their more severe crisises to professional people.

#### SUMMARY

Certain factors which are associated with high suicide rates were discussed. The population of Saline County, Nebraska was described with regard to some of these pertinent factors. Included in these factors are age, sex, ethnic background, religious confession and marital status. The factors just mentioned allow one to break the population down into risk groups for more convenient study. Methods and preferred time of year for suicide were also discussed as these factors seem to, in some ways, predict the frequency and success of suicide attempts.

Some trends in the methods of suicide study were also discussed. It seems that most modern students have concentrated their efforts on the individual suicide rather than on the more impersonal statistical approach. The trend of study has evolved from Durkheim's statistics through Freud and other psychoanalyists to Shneiderman and Noyes, who take a more personal and preventive approach. It should be pointed out that each method is useful to appreciate the total problem. If a high risk population cannot be identified statistically, emphasis on prevention cannot be properly placed.

It would have been desirable to interview families of some suicides, but residents of the area were reluctant to refer them for interview purposes. Detailed descriptions of the high risk groups were obtained however, and the descriptions obtained corresponded quite well with high risk groups described by others. It was demonstrated that people who migrated from Czechoslovakia were in the highest risk group. As this high risk group began to diminish in number, the suicide rate in the county also began to drop, and this group probably has not played a significant role in Saline County suicide since the late 1950's and early 1960's.

The question was raised as to why the descendants of the Czech people have not retained the habits of their parents with regard to suicide. There is no evidence of a profound sudden change in the disposition of the community to account for the precipitous drop in suicide after 1960, but several factors seem to be involved in this change. The population today seems to be better educated, less isolated, more social, and more willing to accept professional help for depression. Social factors as reflected by a rising church membership are probably also involved, as are professional care and psychotropic medicines.

The above mentioned factors may have influenced the socially isolated suicide prone people to evolve into a more socially adaptable group which can tolerate depression and change in more appropriate ways.

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