

ORIGINAL COMMUNICATION

A study on the incidence of suicide by hanging in the sub-region of Transkei, South Africa

B. L. Meel

Department of Forensic Medicine, Faculty of Health Sciences, University of Transkei, Umtata, South Africa

SUMMARY

Background: Transkei is a former black homeland in South Africa. It is a historical place and well known for spearheading the freedom fight of South Africa because most of the African National Congress leaders are from this region. It was therefore deprived of development by the apartheid government and is now a poverty stricken area. Transkei is characterized by the lack of infrastructure, and hence a, high rate of unemployment. The majority of individuals are dependent on either the income of migrant mineworkers or subsistence farming at home.

Objective: To estimate the incidence of suicides in the sub-region of Transkei.

Method: This is a retrospective record review of deaths due to hanging during the period of January 1993–December 2000 at the Umtata General Hospital. All medico-legal autopsies were recorded in a register at the mortuary. The names, addresses, age, and causes of deaths are found recorded in the register. The catchment areas of these autopsies are Umtata and Nqgeleni magisterial areas which have a population of about 300,000. All autopsy records were collected and analyzed manually.

Results: There has been an increasing trend of hanging since 1993, with an overall suicidal death rate increasing from 23.7 per 100,000 in 1993 to 38.6 per 100,000 in 2000. It is observed to be higher in November 32 (13%) and least in September 12 (5%). Over half the deaths 32 (51%) due to hanging were young adults (16–30 years) and 8 (13%) adolescents less than 15 years of age. Twelve (19%) deaths were 31–45 year olds and 5 (7%) were over 61 years.

Conclusion: There is increasing incidence of deaths due to hanging in Transkei. Nearly two-thirds of them were young adults less than 30 years.

Recommendation: Suicidal tendency in terms of young adults is emerging as an important mental health issue that needs to be addressed. There is need of a well-planned prospective study to be carried out in Transkei.

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INTRODUCTION

It is estimated that globally in 2000, 815,000 people killed themselves, making suicide the 13th leading cause of death. The highest rates of suicide are in East European countries. The lowest rates are

mainly in Latin America and in a few countries in Asia.¹ Globally, there has been a progressive increase in suicide rates, from 10.1 per 100,000 in 1950 to 16 per 100,000 populations in 1995 – a nearly 60% increase in 45 years.² The suicide rate in young people increased dramatically over the last few decades. In 1997, suicide was the third leading cause of death among 15–24 year olds.³ Suicide is a complex phenomenon associated with psychological, biological, and social factors, claiming approximately 30,000 lives each year in the United States.⁴

In South Africa in 1990, the overall suicide rate was 17.2 per 100,000, which is slightly higher than

B. L. Meel MBBS, MD, DHSM (Natal), DOH (Wits), Department of Forensic Medicine, Faculty of Health Sciences, University of Transkei, P/Bag X1 Unitra, Umtata 5100, South Africa

Correspondence to: B. L. Meel, MBBS, MD, DHSM (Natal), DOH (Wits); E-mail: meel@getafix.ut.ac.za

that in the WHO report.² Initial estimates from the South African National Burden of Disease Study (2000) indicated suicide as the 10th out of 20 leading causes of mortality.⁵ South Africa has a history of traumatized citizens and is a society in transition. Suicidal behavior among the black population in South Africa appears to be on the increase.⁶ There are several possible reasons for committing suicide poverty: including unemployment and 'broken' homes. Hanging is the most frequently employed (36.2%) method of suicide.⁷

There are no reliable statistics available related to suicide in South Africa, particularly in Transkei. A recent study carried out by the author showed that financial hardship was the main reason in 87% of the victims.⁸ The current trends in suicidal behavior in black South Africans, unlike what was reported in earlier findings, are not significantly different from any other ethnic group with regard to prevalence rates, suicide risk factors, the individual clinical course it takes, and the suicidal process. Research also shows that the problem of suicidal behavior remains serious in South Africa in all age and ethnic groups.⁹

South Africa is in a HIV/AIDS epidemic of shattering dimensions.¹⁰ To date, about 200,000 have died of AIDS-related illnesses and about five million are infected.¹¹ Depression in the HIV positive individuals is significantly higher. Although depressive symptoms may not be strong enough to warrant a psychiatric diagnosis, a careful evaluation of risks was required.¹² Depressive symptoms and suicidal ideation are common amongst HIV positive patients, occurring at comparable or greater rates than those found in a variety of other medically ill populations.¹³ Accurate estimation of suicide in relation to HIV/AIDS is necessary in measuring the costs of the epidemic and for effective strategic planning. A more careful follow-up study is needed to understand the non-natural deaths in association with HIV/AIDS.

METHOD

The Umtata General Hospital (UGH) mortuary deals with about 1000 medico-legal autopsies (unnatural deaths) in a year from Umtata and Nqgeleni magisterial areas, which have a population of about 300,000. It is the teaching hospital of the University of Transkei Medical School.

This is a record review of deaths due to hanging during the period January 1993 and December 2000. All medico-legal autopsies were recorded in a register at the mortuary. The names, addresses, age, and

causes of deaths have been recorded in the register. All the records were collected and analyzed manually. The total suicidal deaths were calculated using the multiple factor 2.71, as has been postulated by Schlebusch.⁷ This postulation is based on the assumption that in suicides, 1/3 occurs by hanging, 1/3 by gunshot injuries, and 1/3 by poisoning, etc. Hanging is clearly known to us as suicide, but the other two methods are difficult to determine. Therefore, remaining two-thirds of suicides are estimated by mathematical calculations. The results were compiled and analyzed by Epi-info 6.4 computer program.

RESULTS

The majority of deaths, 6734 (94%), were unnatural and have increased from 1993 (10.8%) to 2000 (13.3%). Hangings have increased from 3.5% to 4.5% in these unnatural deaths over the same period. The overall suicidal death rates increased from 23.7 per 100,000 populations in 1993 to 38.6 in 2000. Suicides are noted to be more in November 32 (13%) and least in September 12 (5%) (Fig. 1). Nearly half the deaths (51%) recorded due to hanging occurred in young adults (16–30 years). Adolescents (<15 years) accounted for 13%. Those between 31 and 45 years were 19% and the elderly (>60 years) 7% (Fig. 2).

DISCUSSION

This study was done to estimate the incidence of suicide by hanging in the Transkei region between 1993 and 2000. The 7129 recorded medico-legal autopsies were divided into two categories natural and unnatural. The majority, 6734 (94%), were unnatural deaths. There were no homicidal hangings reported

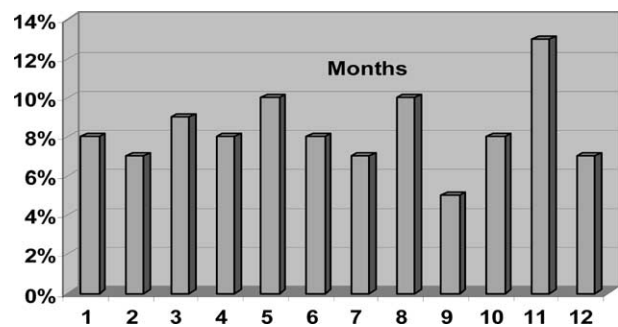
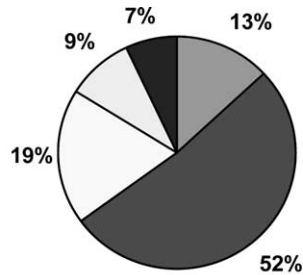


Fig. 1 Month-wise distribution of hanging in Transkei (1993–1999) ($n = 253$).



mean age is 31 years

■ < 15 yrs ■ 16-30 yrs □ 31-45 yrs □ 46-60 yrs ■ 60+ yrs

Fig. 2 Age-wise distribution of hanging in Transkei (1993–1999) ($n = 253$).

during this period. Hence, all cases were considered suicides. There were 253 cases of hanging, which accounted for 3.75% of the unnatural deaths during the 8-year period of study (Table 1). Suicides of every type accounted for almost 8% of all unnatural deaths in South Africa and 9.9% in the Eastern Cape province.¹⁴ Fatal poisoning, possibly suicidal, has increased fivefold and fatal gunshot injuries, which may or may not be suicidal, have increased one and half times.¹⁵ The two commonest methods of suicide were shooting and hanging. About one-third of suicide victims used a firearm, while a further third hanged themselves. The remaining third used other methods like poisoning.¹⁴

There has been a progressive increase in unnatural deaths, from 10.8% in 1993 to 13.8% in 2000. This correlates with hanging, 3.56% in 1993 and 4.53% in 2000. This suggests that as the unnatural deaths increased, suicides by hanging also increased correspondingly (Table 1). Thus, the suicides are part of a common pattern of violence in the region and one type may also be a risk factor for another form.¹⁶ Studies in developed countries show that greater availability of lethal weapons is associated both with higher homicide and suicide rates.^{17,18}

In 1993, hanging related suicide was 8.6 per 100,000 of population and it has increased to 14 per 100,000 in 2000. This one and half-time increase in suicidal deaths by hanging is a cause for concern (Table 1). An earlier study has also showed that hanging is the method of choice in 57% and predominantly by males.^{14,19} There is less evidence of suicides by other causes like poisoning and gunshot injuries, as they are less frequently distinguished as a suicide in the absence of reliable witness.²⁰

There has been an increase in hangings from 1993 (10.2%) to 2000 (16.6%) (Table 1). Transkei is semi-rural to rural. In a recent study, it was found that rural folk are much more (>90%) likely to commit suicide by hanging than urban dwellers.¹⁹ It could be because that hanging is a cheap method of committing suicide in the rural setting, but it is in speculation.

In South Africa, 25 per 100,000 (10,000 per year) of population commit suicide yearly.²¹ In this study, an average of 29 suicides per 100,000 has been estimated, which is slightly above the national average and higher than in China 31 per 100,000 of population.²² In the USA, suicides are 4–7.5 per 100,000 of the population.²³ In developed countries like the USA, suicides outnumber homicides.¹⁴

The pattern of seasonal variation observed in countries in the northern hemisphere, with a peak in summer, is also present in South Africa for all race/ethnic groups.²⁴ Five percent of the deaths occurred in September and 13% in November (Fig. 1). The increase in suicidal deaths in November cannot be explained, despite the fact that the returning miners come home with money earned. On the other hand, easy availability of alcohol and cash in hand leads to increased consumption of the brew closer to the festive season. This is also reported in the National Non-natural Mortality Surveillance System (NNMSS) study that about one-third of suicide victims had consumed alcohol at the time of their death. Most of them had been drinking considerable amounts of alcohol – the average blood alcohol level

Table 1 Distribution of hanging in Transkei (1993–2000)

Years	% Unnatural deaths ($N = 6734$)	% Hanging in unnatural deaths (yearly)	Hanging/100,000 of population	Suicides/100,000 of population
1993	729 (10.8%)	26 (3.5%)	8.6	23.7
1994	775 (11.5%)	23 (2.9%)	7.6	20.9
1995	723 (10.7%)	27 (3.7%)	9.0	24.8
1996	777 (11.6%)	29 (3.7%)	9.6	26.4
1997	920 (13.6%)	27 (2.9%)	9.0	24.8
1998	991 (14.4%)	37 (3.7%)	12.3	33.9
1999	893 (13.3%)	42 (4.7%)	14.0	38.6
2000	926 (13.8%)	42 (4.5%)	14.0	38.6

among BAC positive victims was found to be 0.17 g/100 ml.¹⁴ One study showed that alcohol abuse is strongly associated with suicide. Alcoholics are at high risk of suicide and account for between 20% and 40% of all suicides.²⁵

Unemployment in Transkei is the highest within South Africa (67%),²⁶ which makes the population more vulnerable to suicide. Suicides are higher among the unemployed than the employed. The majority of men in this area are ex-migrant labourers, especially miners, living under extreme poverty and very poor health. Physical illness is an important contributing factor in 11–51% of suicides.²⁷ Suicide is the only option because of the despair experienced by many ex-mineworkers. There are several possible reasons for a large number of blacks committing suicide; among them are poverty, unemployment, and 'broken' homes.⁷

In general, suicide rates increase with age, with rates among people aged 75 years and older approximately three times the rates among people aged 15–24 years.²⁸ In this study the average age was 31 years, the youngest 10-years, and the oldest 78 years. This resembles the NNMSS findings, where the average age was 36 years.¹⁴ Fifty-one percent of the deaths in this study are due to hanging by young adults (16–30 years) (Fig. 2). This again correlated with NNMSS findings, where half of the victims were between 15 and 34 years of age.¹⁴ Failure rates in matriculation examinations are very high in this region and with no social support in place is also contributory to suicides. Surprisingly, there is a high percentage (13%) of adolescent (<15 years) suicide deaths (Fig. 2). This is six and half times higher than in Gauteng¹⁴ and six times higher than in Australia.²⁹

Lourens et al. reported that the suicidal behavior among the black population in South Africa appears to be on the increase.⁶ The change in the picture in recent years could be explained by HIV/AIDS-promoting factors. The critical psychosocial stressors of HIV/AIDS including social stigma, discrimination, isolation, lack of support from family and friends, and social devaluation enhance suicide risk.¹⁵

A psychiatrist in this area has showed an increase in suicide rate among black South Africans among the patients he researched.³⁰ These reports have been supported by Mayekiso who found that whilst suicide is generally unacceptable to black adolescents, a high percentage in her sample (36.0%) considered it an option in certain cases. She found that some of the main causes for this are: an increase in parental divorce, parent–child conflict, and love-relationship problems.³¹ Schlebusch also noted a shift in clinical population in a cross-cultural comparison of suicidal

behavior in a sample of South African patients, in the sense that suicidal behavior amongst black South Africans was becoming an increasingly serious problem.⁹

Black youth do not only increasingly consider suicide as an option when they cannot cope, but act on it in certain cases as well – especially when they are under severe depression.³¹ Suicide and suicidal attempts occur at significantly greater rate in schizophrenics than in the general population.³² It is the single largest cause of premature death among individuals with schizophrenia.³³ Depressive symptoms (64%) were highly prevalent immediately before suicide.³⁴ Those who commit suicide have also engaged in dangerous/or criminal activity.³⁵ Therefore, there is a growing need to educate the people about psychiatric illnesses, so that one could help the mentally incapacitated people. There is a serious constraint for this care as treatment for severe mental disorders is not available in most primary health care settings.

CONCLUSION

The incidence of hangings as a method of suicide is increasing. Sixty-four percent (64%) of suicidal deaths recorded were in teens and young adults. This growing number of deaths in this age group is an urgent matter of concern.

RECOMMENDATIONS

There is need of a well-planned study to be carried out in Transkei to deal with emerging suicides. Solutions to unemployment, poverty, alcohol, and drug use in the youth should be made a priority to curb the rising incidence of suicides. Mental health care and support should be improved at the primary health care level.

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