The Search to Identify Contagion Operating Within Suicide Clusters in Indigenous Communities, Northern Territory, Australia.

LEONORE HANSSENS

NT Board Representative, Suicide Prevention Australia

Abstract

Objective: Clusters of suicide appear to be intensified within some Indigenous communities in all regions of the Northern Territory. This paper will investigate whether a contagion effect is operating and identify whether it is a robust risk factor for Indigenous suicide. Other risk factors for suicide in Indigenous communities including alcohol and familiarity with hanging as a method will be explored in the context of social and cultural vulnerability.

Methods: National Coroners Information System and Northern Territory Coroners Office data were examined by firstly identifying Indigenous status. Data was aggregated, de-identified and extracted into an Excel spreadsheet and analysis conducted to provide correlations.

Results: The prevalence of hanging as a method of completion in 86% of Indigenous suicides in the Northern Territory provides strong evidence of contagion and imitation. This method to complete suicide peaks at 90% at the 10 – 19 age group and again at 40 – 49 age group. Alcohol was present in 77% of suicides but there appears to be a definite correlation between hanging as a method and alcohol intoxication. What is more sinister is the prevalence of hanging in 100% of child suicides aged 10 – 14 years of age and appears as a strong predictor of behavioural contagion in that age group.

Discussion: The evidence of contagion and multiple risk factors operating within clusters of suicide provides a complex picture of Indigenous suicide in the Northern Territory. The main known predictors of suicide such as alcohol intoxication, other drug use and social stressors are identified as causal in behavioural contagion. The challenge to understand the meaning and impact of a hanging body as a response to unfailing hardship within Indigenous communities is now critical, as familiarity with hanging as a method increases in younger age groups.

Conclusions: Contagion has been identified as a strong predictor of Indigenous suicide in Indigenous settings particularly hanging as a behavioural contagion. Urgent interventions are needed to prevent this robust contagion spreading, particularly in vulnerable Indigenous young children and adolescents.

This paper was presented at the Aboriginal Suicide Prevention & Capacity Building Workshop, Suicide Prevention Australia 12–14th June, Alice Springs, 2007.

Clusters of suicide have been identified within Indigenous communities in urban, rural and remote settings in Northern Territory, Australia [1]. The subject of this current paper is to identify whether a suicide contagion is operating within these clusters. This paper is the second in a series investigating Indigenous suicide in the Northern Territory. It is questioning whether Indigenous people, particularly men, already clustering together have, by default, made suicide a behavioural response to negative life events and rapid social change [2; 3]. Another question of this research is whether hanging, as a method of suicide, is a major behavioural contagion operating and stimulating other suicides, forming clusters [1].

The paper will explore suicide contagion as a product of the way the social, political, cultural and economic factors are brought to bear on the phenomenon of suicide and from there investigate the nature of this contagion. Therefore the research will explore suicide contagion in the context of the relationship between a community's social cohesion and vulnerability, its suicide rate and the cluster phenomenon. Beautrais [4] defines contagion as a process whereby a prior suicide facilitates the occurrence of subsequent suicides[4]. She goes on to state that people who complete suicide can have several adverse life events in the period preceding a death by suicide and these stressful events can often provoke and predict suicidal behaviour in the vulnerable, particularly youth and Indigenous people[4]. Pompilli[5] supports the notion that contagion is putatively suggested to be causal in clusters of suicide and commonality of method in Indigenous suicide contributes to contagion[5]. Whereas, Joiner [2] suggests that contagion is not the complete answer to clustering of suicide and is a weak predictor. He believes that vulnerable people may cluster well before a completed suicide of a member of the cluster group[2].

The premature death of Indigenous people was poignantly described by Professor Mick Dodson [6] in the Social Justice Report when he stated:

> "The statistics … are our children who die in our arms, … are our shortened life expectancy and are our mothers and fathers, uncles, aunties and elders who live diminished lives and die before their gifts of knowledge and experience are passed on. We die silently under these statistics" [6].

Hassan[7] suggested that trends and statistics over the twentieth century in Australia have revealed that the burden of suicide rests on the most disadvantaged in our society. This burden has also been seen to shift across demographics: age, gender and race, according to the level of burden suffered. For example, men in the Great Depression, elderly men, post war veterans, youth in the nineteen nineties and now Indigenous people, particularly men, in the late twentieth and early twenty-first centuries[7]. The phenomenon has been particularly obvious in the suffering of Indigenous people in the Northern Territory where there is a high level of disadvantage and a corresponding and dramatic increase (800%) in the rate of Indigenous male suicide in two decades[8]. This distress and disadvantage is across the board and is confirmed by a new study by Condon[9] in the Northern Territory that shows there is a widening gap between the health of Indigenous and non-Indigenous Australians. The research shows that the health status of Indigenous people is falling further behind the rest of the population and the most at risk are in the young and middle adult years, and Hanssens[1] reported that this age group (15–35 years) accounts for 83% of completed suicide in the Northern Territory[9; 1].

Hassan[7] described Australia during the Great Depression of the 1920s as having high unemployment rates and this social factor contributed to a "very dramatic increase in the male suicide rate"[7]. Decades later at the turn of the 21st century Hanssens et al (2007) have identified a similar phenomenon, a 'Depression' in Indigenous men in the Northern Territory with very high rates of unemployment and a corresponding and dramatic increase in the rate of suicide[1; 8].

Gist & Lubin[10] explain the idea that Indigenous people are victims of a reality much greater than the tragedy of suicide as a traumatic event when they suggest that:

"The reality of individual victimisation cannot be understood without consideration of the collective reality at all levels: environmental, psychological, social, racial, political, spiritual and cultural"[10].

The proposed Stage Two of the research, interviewing the families of the deceased, will be a step forward for the families in "understanding and forgiving the deceased" and realizing that they as families are "not guilty" of failing their loved one. The double edged sword just mentioned can be a perpetual cloud of unknowing over the family but once given an opportunity to talk about the deceased and the circumstances of their life and death, the family can be at peace and move forward with their loved one who is now also at peace[1].

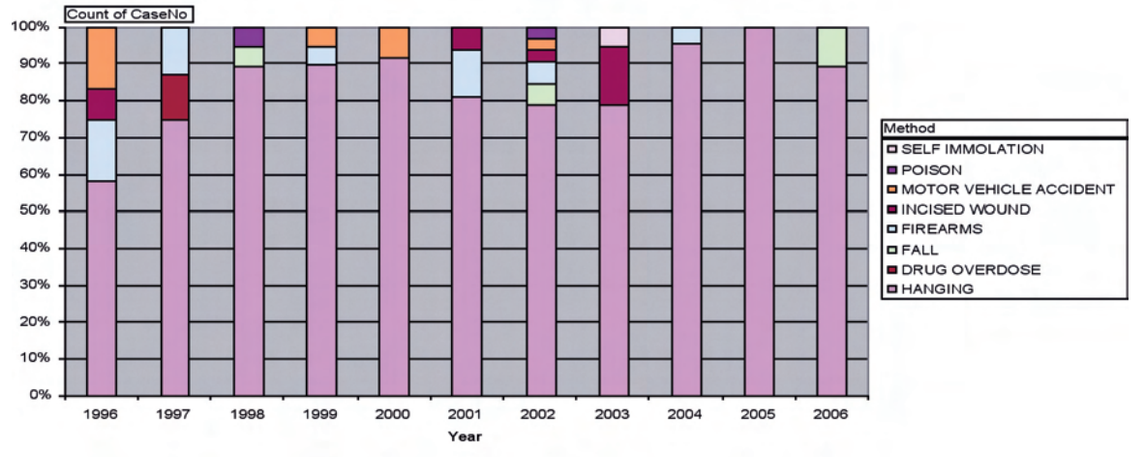
Method

Data has been compiled and collated from the National Coroners Information System (NCIS) and the Northern Territory Coroner's Office. The NCIS contains contextual and demographic data, medical causes of death, mechanism involved in death, police narrative, coronial finding, toxicology and autopsy reports[11]. The National Coroners Information System Northern Territory data 2001–2006 was examined for deaths due to external causes and then specifically deaths due to intentional self-harm were identified. The Northern Territory Coroners Office data 1991–2000 was also examined and Indigenous deaths due to intentional self-harm were identified. All deaths had Indigenous status verified and only deaths from 1996–2006 were analyzed for correlates. The de-identified quantitative data was then extracted into an Excel spreadsheet, aggregated and analysed by using pivot tables to formulate graphs and pie charts. The qualitative data, coroner's narratives was also examined to identify trends in other sudden, accidental deaths of those who died by similar methods, for example hanging. This method of investigating clusters and establishing contagion has been used in other retrospective studies[12].

Ethics Approval

Ethics approval for the research as mentioned in the previous article has been gained from the Charles Darwin University and the Victorian Institute of Forensic Medicine ethics committees for Stage One of the research. An NCIS Access Agreement containing privacy protocols has been formally signed between CDU and VIFM[1]. Parts one and two of Stage One are almost complete, but part two of the research relating to interviewing the Deputy Coroner raised some concerns around permission to conduct Stage Two of the research. Stage Two relates to conducting a psychological autopsy interview with a member of the family of the deceased and also with a control group identified[13]. Currently, there are negotiations, prior to permission being granted, with the Northern Territory Coroner, Department of Justice and the Charles Darwin University

Figure 1. Indigenous suicide in the Northern Territory – Method by year (%) 1996–2006.



Data for all graphs and charts obtained from NTCO and NCIS 1996 – 2006 Northern Territory.

Figure 2. Shows an overall increase in hanging as a method in Indigenous and non-Indigenous suicide in the Northern Territory 1996–2006.

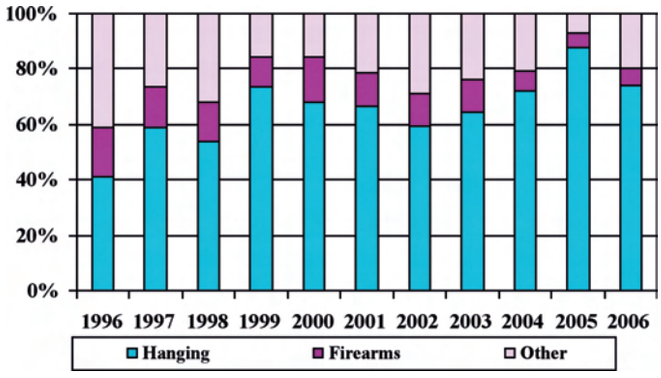


Figure 3. Suicide by hanging represents 86% of all Indigenous suicide deaths 1996–2006.

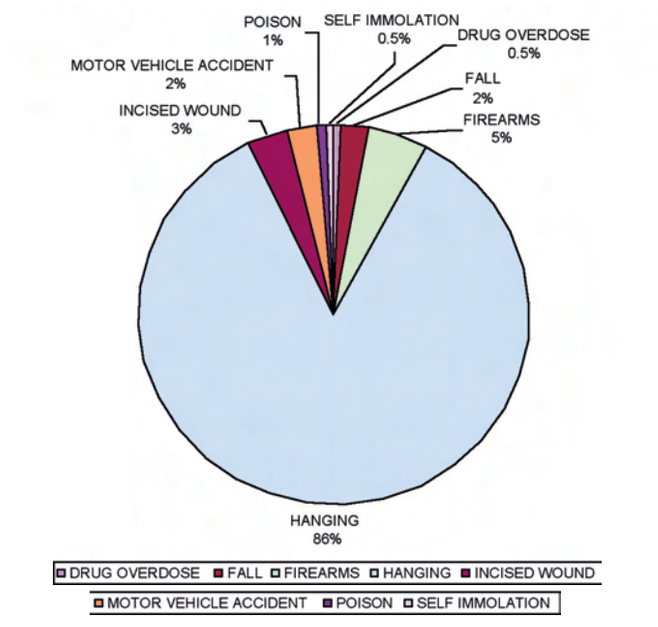


Figure 4. Age breakdown and method of completed suicide in Indigenous people in the Northern Territory.

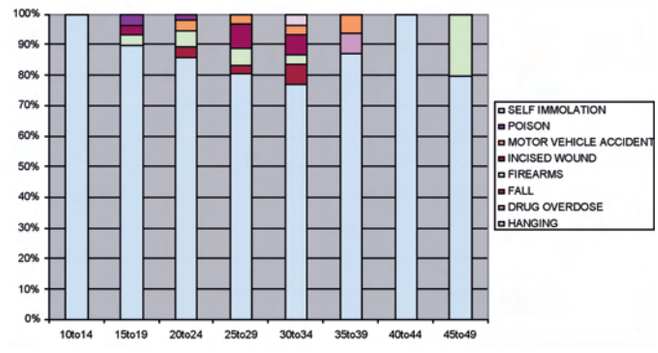


Figure 5. The percentage of suicides by hanging and percentage alcohol related hanging suicides 1996–2006.

Figure 6. Graph shows dramatic rise in Indigenous suicide from 1991–2006 from >5% to almost 60% of total suicide victims in the Northern Territory.

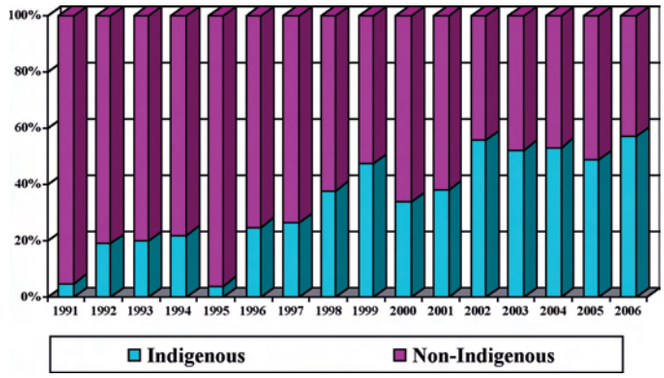


Figure 7. Graph shows the percentage of Indigenous child and adolescent suicide has increased from 40% to 80% of total youth suicide Age 10–24. 1996–2006 Northern Territory.

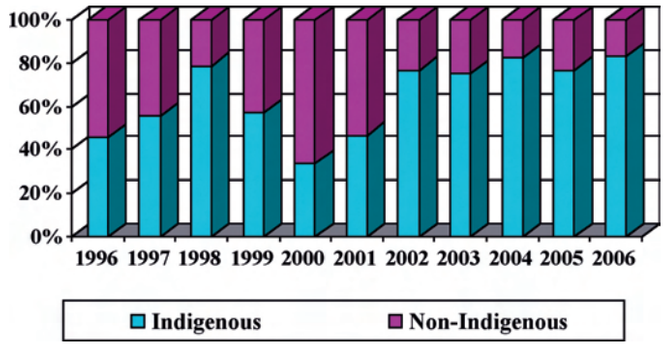
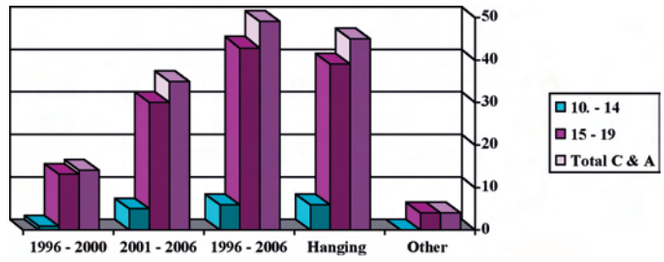


Figure 8. Graph shows Indigenous Child and Adolescent suicide from 10–14 years and 15–19 years, from 1996–2006. Age breakdown by Number of deaths 10–14; 15–19 and Method of suicide 10–14; 15–19.



Ethics Committee concerning the efficacy of conducting the interviews with Indigenous family members [14 1].

Results Stage One of the study

The percentage of Indigenous suicides by hanging has increased from 60% to 90% in the decade from 1996–2006, and in 2005 it was used exclusively in 100% of suicide deaths (see Figure 1). Overall, from 1996–2006 suicide by hanging represents 86% of total Indigenous suicide deaths (see Figure 2)

Discussion

Method as a behavioural contagion and risk factor for suicide

Suicide, including attempted suicide and self-harm, appear to be producing a dramatic behavioural contagion in Indigenous communities resulting in further suicides and cluster suicides in these close knit communities and vulnerable groups [15]. Behavioural contagion is often seen in criminality, conduct disorder, drug abuse and suicide which highlights the contagious nature of antisocial behaviour and can explain the temporal clusters of suicide seen in many communities[16]. In some communities the clusters are at times replicated producing several "echo clusters" [1].

Examining the methods of completed suicide of Indigenous victims in the Northern Territory provides evidence of the increasing use of hanging as a method of completion. The commonality of method by hanging is highly suggestive of behavioural contagion through imitation as illustrated (see Figure 1). When considering all completed suicides in the Northern Territory 1996–2006 the method has more than doubled in the past 10 years from 40% of total suicides in 1996, to approximately 80% of all suicide deaths in 2005/2006 (see Figure 2). The increase in this method can largely be attributed to the increase in Indigenous suicide by hanging with 86% completing suicide by this method in the years 1996–2006 (see Figure 3). For example, in 2005 100% of Indigenous suicide was by hanging, and for six years of that decade hanging was used in over 90% of completed suicides. The behavioural contagion of hanging is more complex than the ease of availability of this method. Indigenous people have less access to other methods, for example, firearms because of their isolation and poverty but that alone cannot explain the almost exclusive use, in some age groups and in some years, of hanging as a method to complete suicide. It has implications as an extreme behavioural contagion in young people and has been seen in the exclusive use of this method of suicide in the very young. Changes in legislation on firearms availability may have impacted on firearms being rarely used but the contagion effect of hanging has to be seriously considered when confronted with the evidence. The evidence suggests that Indigenous people have not substituted one method with another because other methods were previously rarely used, as suicide is a recent phenomenon in Northern Territory Indigenous communities [17; 8]. But instead, Hunter [18] suggests that hanging as a dominant method with Indigenous people has political and poignantly symbolic statements of oppression and injustice [18].

When considering hanging against age as a risk for behavioural contagion in Indigenous suicide in the Northern Territory, the results are disturbing, particularly in the younger age groups. For example, in the 10–14 year olds hanging is used exclusively (100%) and in the 15–19 year olds it is used in 90% of suicide completions. Other methods are rarely used but are mostly used in the 20 to 39 age groups with some firearms use in the older age group but again in the 40–49 age group hanging is used almost exclusively (90%) (see Figure 4).

The association between alcohol and suicide has been documented by other Australian researchers who suggest that Indigenous suicide is in the context of heavy alcohol use[19 8]. Chikritzhs [19] states that suicide is the most frequent alcohol-attributable death among Indigenous men, reflecting the despair they feel and the situational crisis they are experiencing. The evidence from the National Drug Research Institute in Western Australia has found that the Northern Territory (NT) had almost a quarter (23.5%) of the total alcohol-attributable deaths among Indigenous Australians 2000–2004. Chikritzhs [19] and colleagues found that in the NT for this period there were 269 alcohol-attributable deaths yet NT has only 60,000 Indigenous people or 13% of the total Indigenous Australian population of approximately 460,000. Whereas Queensland, which had 285 deaths, has double the NT population with 27% or 126,000 Indigenous people. Therefore the NT has double the alcohol-attributable deaths of Qld and constitutes the highest number of alcohol-attributable deaths in any state or territory in Australia. It is also high compared to Western Australia who has a comparable Indigenous population of 66,000 people with 222 deaths. Of the five most common causes of alcohol-attributable deaths, suicide was the most common cause of death for Indigenous males and alcoholic liver cirrhosis was for Indigenous females [19].

In all methods of completion alcohol was present in 77% of Indigenous victims who completed suicide from 1996–2006. There was a strong correlation found in this research between alcohol and hanging and its contribution to suicide deaths in the Northern Territory with 71% of hanging victims having positive toxicology results or recent heavy use of alcohol (see Figure 5). As hanging as a method reached 100% of completed Indigenous suicide in 2005, alcohol toxicity or recent heavy alcohol consumption was peaking at eighty percent (80%) of victims. Cannabis (THC) use was recorded in toxicology results with THC levels in approximately 24% of hanging suicide victims and in all other methods THC was recorded in 19% of victims. More detailed and accurate use of cannabis and other drugs by victims and what part they had to play in completed suicide will be forthcoming once interviews with family members have been conducted in Stage Two of the research [20; 1].

The increasing impact of suicide on Indigenous people, who represent approximately 29% of the total population [8] in the Northern Territory, but who now represent almost 60% of total completed suicides is clear (see Figure 6). In 2006 Indigenous suicide has overtaken non-Indigenous suicide with approximately 40% of total suicide being non-Indigenous and almost 60% of total suicide being Indigenous people. Considering the social, political and economic reality of Indigenous people in the Northern Territory today, one can contextualise the increase in the past 16 years from approximately 5% of total suicide deaths to almost 60% (see Figure 6).

Quite disturbing preliminary results of this research show that suicide by hanging is featured in the younger age groups,

with these findings being supported by other researchers [21; 22]. It means "double trouble" for Indigenous youth: being young and Indigenous makes them doubly at risk of behavioural contagion [23]. Shaw et al [24] state that for "a child or adolescent to find himself or herself in a situation where the only perceived option is to take their own life is tragic but not uncommon" [24]. Mishara [25] posits the view that conceptions of death and suicide in children ages six to twelve are known and that it is "naïve to think that children do not know about suicide". He goes on to state that children between the ages of 8 and 10 years of age understand that death is permanent and are capable of taking their own lives [25]. If current trends in child abuse and neglect in the Northern Territory translate into suicidal behaviour, as the recent LONGSCAN studies in the USA have shown that children as young as 8 years old can present with suicidal ideation in the context of abuse, the future looks bleak [26].

Indigenous child and adolescent suicide has increased in the Northern Territory from forty percent of total child and adolescent suicides to eighty percent from 1996–2006 and one needs to question whether the current child abuse issues are linked to these spiralling suicide rates (see Figure 7). Concurrently, the Indigenous "baby boom" of the previous and current decades have increased the proportion of Indigenous youth compared with Indigenous adults [27]. Other research has shown that there is an association between the proportion of youth in a population and youth suicide rates and this phenomenon in the Northern Territory is contributing to a delayed youth suicide crisis compared with other jurisdictions in Australia [22].

Child suicide is not a horizon issue in the Northern Territory but an already-present phenomenon with six suicides in the past seven years in the 10–14 year age group representing a five-fold increase, all (100%) by hanging (see Figure 8). There have also been accidental deaths by hanging of the very young with all these deaths (100%) being Indigenous children. Coroners are reluctant to classify self-inflicted deaths in children as suicide even when there is doubt that there may be some intent [25; 29]. We cannot ignore the fact that these childhood suicides are part of the complex picture of Indigenous suicide in the Northern Territory. It appears that Indigenous children are modelling the behaviour of Indigenous adult suicide where hanging is the dominant method. There are anecdotal accounts of self-strangulation in school age children mimicking the tragedy they see all too often in their family and community. This related issue of self-strangulation by Indigenous school children in urban, rural and remote schools has resulted in accidental death, increasing self-harm and suicide [30]. It is also important to note that most of the very young deaths occurred in regional and remote locations in the Northern Territory. There has been a five-fold increase in Indigenous child suicide 10–14 years of age in the past decade providing evidence that the contagion effect of hanging is filtering down to Indigenous children and adolescents 10–19 years of age who are the most vulnerable in our community (see Figure 8). The impact of children witnessing a body hanging in a community, and what this is communicating to children and young people, and its potential for contagion effect for suicidal behaviour – particularly self-strangulation – requires further investigation in the Northern Territory [22].

Other risk factors for Indigenous suicide in the Northern Territory:

Gender and age, that is being male and young, is an extreme risk factor for Indigenous suicide in Northern Territory where 91% of Indigenous suicides are male and 83% of Indigenous suicides are between the ages of 15–34 years of age [1].

Indigenous status increases risk, in particular for Indigenous males who appear to be most at risk of contagion with an unprecedented 800% increase in Indigenous male suicide in the NT in the past two decades, 1981–2002 [8]. Cluster suicides were recorded in 77% of Indigenous suicides in the Northern Territory although this result are the upper confidence level 1.

Unemployment is a very high risk factor for Indigenous people who complete suicide, with 72% being unemployed. Indigenous men are often known to cluster in pubs or drinking circles and once a suicide is added to the cluster a rapid contagion effect producing imitation and cluster suicides results [1]. Hassan [7] has explored this issue extensively creating a picture of despair, despondency and aimlessness that demands comprehensive strategies from both Federal and Territory governments. He compares the economic costs of suicide, years of life lost in productivity and providing a solution to unemployment, representing an enormous cost benefit to the community [7]. There are young Indigenous people who are employable and represent an increasing percentage of our NT population who are assigned to the ranks of the itinerant, aimless and unemployed.

Marriage and de facto relationships were not found to be protective factors in the previous study as they are in non-Indigenous cultures with 52% of NT Indigenous suicide victims being young married men with families [1].

Familial contagion, similar to non-Indigenous cultures has been observed in urban, rural and remote centres where some families have experienced suicides occurring as an intergenerational and intra-generational feature. This feature will be explored in Stage Two of the research when a psychological autopsy interview with a family member and Stage Three, focus groups with community members, are conducted [1]. Yet in other communities or, for example, a group of island communities the Indigenous people say that they are all one people so familial contagion is a "given" and they all mourn the loss of the community member as if they were close family [31; 32]. On the same island community, in the week prior to his completed suicide, an Aboriginal Health Worker had provided suicide interventions to four of his family who had made serious suicide attempts [32]. His suicide death illustrates not only a tragic familial contagion but also the extreme vicarious trauma suffered by Aboriginal Health (Mental) Workers in these remote communities.

Location of suicide does not appear to be a robust risk or protective factor as urban, rural and remote Indigenous communities have experienced clusters because they all share the same risk for suicide with poverty, unemployment and social disadvantage being the common denominator [1]. The major exception to the rule is within communities where there is a very high level of externalised violence, which could be seen as a demonstration against injustice and boredom, played out by interpersonal, family and communal violence, for example, Wadeye NT. The location of clusters of suicide in the Northern Territory is consistent across the four main regions and in urban, rural and remote locations [1].

Traumatic events such as natural disasters can ignite suicidal behavioural contagion in Indigenous communities and has been seen where extreme isolation is a factor after the event. The connection between suicide and community traumatic events has been demonstrated in the NT, particularly in already vulnerable Indigenous communities. For example, after the 1998 floods in the Katherine region there was a sharp rise in completed suicides in this region. It occurred in communities that were isolated for extended periods of time, during and after the flood, and resulted in clusters of suicide [1 10].

Cultural factors that contribute to suicide contagion in Indigenous communities were well illustrated by an Aboriginal Mental Health Worker who has spent the last six years working on the Tiwi Islands with her own people and who is at the cutting edge of the "echo" cluster suicides on those islands [1]. Apuatimi [32] stated that "Our culture is developing in response to the environment and if the environment changes rapidly, our culture has difficulty in adapting and we suffer from stress". She goes on to say, "Suicide is becoming a common way for people to deal with their problems on the Tiwi Islands. Some of the causes we have identified include fighting, jealousy, domestic violence, gambling, card games, money problems, drugs and alcohol abuse". She says "in the midst of a conflict, a common response from the men is to threaten: 'I'll hang myself' and an element of imitation has been identified in this pattern of response to difficult issues, family conflict and times of crisis" [32].

Social factors can contribute to suicide contagion in Indigenous communities. Recently Palmer et al [33] cited the following risk factors for Indigenous suicide in Central Australia. They are seen as Indigenous young men who have grown up in remote Aboriginal communities, outstations or town camps; have English as a second language; have attempted to make the transition into an 'urban' or Western cultural lifestyle and have experienced the impact of substance abuse. Another factor cited from the same presenters is high unemployment and the lack of consistent and long-term employment as a factor in increasing hopelessness of young Indigenous men living on the fringes of Western society in the Northern Territory [33].

Therefore, the evidence above shows that there are several levels and layers to risk for suicide which contributes to the contagion effect operating within Indigenous communities and producing clusters of suicide. The research has found that Indigenous people die by suicide using very lethal means, imitating the methods of others, particularly hanging, which leaves little window of opportunity for rescue or intervention. They die while being intoxicated with alcohol and/or having a recent history of heavy drinking. They die in the context of using other substances, for example, cannabis, petrol, solvents and kava, and are under the influence of these drugs. They die in the midst of family conflict, situational crisis and despair and they also die very young. These deaths are often involving relationship issues and in the context of drug-seeking behaviours. Child and adolescent suicide in the Northern Territory is nearly always in the context of interpersonal violence or sexual abuse, where they are the victims [11].

The politics around the collection and publication of data relating to Indigenous suicide in the Northern Territory are fraught with difficulty and with a defensive social and political construction [34]. As a researcher investigating this issue I have been subjected to personal and professional vilification. This is of extreme concern to me as a researcher, because if I am receiving this response, how do Indigenous families cope in the aftermath of a suicide. The code of silence around Indigenous suicide is only broken by the deafening and heartbreaking wail of the fathers, mothers, siblings and community members mourning the loss of their loved ones, and sadly far too often.

Solutions to the crisis of suicide in the Northern Territory Indigenous people are as complex as the contributing factors. Associating suicidality with mental illness or mental health problems in Indigenous communities is not always helpful because suicide is more often associated with social issues rather than health or mental health issues. The mental health problem is the end product of the social and political milieu that has been thrust upon Indigenous people of the NT and the political decisions that continue to be made without a sense of justice. The issues of corruption and nepotism within all levels of government needs to be seriously addressed and uprooted to begin governance that will be truly civil, equitable and fair for Indigenous people [35].

Raphael et al [36] suggests that as we try to make sense of horrific or shocking experiences (such as suicide) we should not devalue the normal compassionate, protecting, and comforting responses that bind society in times of tragedy for they are the beginning of the healing process [36]. For example, Crisis Intervention Committees were a locally generated response by concerned Indigenous people and supported by the Life Promotion Program (Top End) in Indigenous communities in the Northern Territory 1999–2006. They were made up of local people who undertook training in suicide intervention and then provided support to the person at risk of suicide or postvention support to the family and friends of the suicide victim and the community as a whole, for instance the Tiwi Islands [37; 32] . These interventions for family, friends and community prior to or in the aftermath of a suicide have been seen to defuse the likelihood of contagion [38]. A unique feature of the suicide intervention and bereavement support training of committee members was the Indigenous healing circle. This "healing circle" has been used by generations of Indigenous people but now also incorporates Christian spirituality and Indigenous spirituality into the healing and bereavement rituals after a suicide death in a community [37; 32]. Targeted interventions identifying 'at risk' children and supporting agencies who work with them was an initiative of the Youth At Risk Network (YARN), another arm of the Life Promotion Program (Top End). It also provided early warning systems of children at risk in the Northern Territory but unfortunately in 2006 the Life Promotion Program (Top End) was dismantled without an appropriate evaluation [37].

Conclusion

Clustering of suicide has been established in the previous research with seventy-seven percent of suicides identified within clusters. Contagion, normally a weak predictor in other studies, has been identified as a strong predictor of suicide in Indigenous settings in this research. It provides evidence of hanging as a behavioural contagion, which has been identified in eighty-six percent of completed suicide from 1996–2006. Indigenous suicide represented almost

sixty percent of total suicide in 2006 in the Northern Territory and has been increasing over the past decade. The role of alcohol in suicide has been convincingly illustrated with three quarters of suicides by hanging and other methods completed in the context of alcohol toxicity or recent heavy use. There is the emerging and deeply disturbing feature of child suicide and the five-fold increase in suicide in the 10–14 year age group with one hundred percent dying by hanging. The role that imitation, behavioural contagion and self-strangulation have to play in the choice of method of hanging which has filtered down to this age group needs to be explored further. As reductions in non-Indigenous suicide have occurred there is now an urgency for those responsible for suicide prevention to strategically target their efforts to reduce Indigenous suicide. In particular, the unique features of suicide in Indigenous settings in the Northern Territory, for example, hanging as a behavioural contagion, the clustering of suicides, alcohol-induced despair and imitation resulting in childhood suicide, that appear to be enduring features of Indigenous suicide, need to be addressed.

References

1. Hanssens LM & Hanssens PJ. Research into the Clusters Effect of Suicide within Indigenous communities, Northern Territory, Australia. Aboriginal & Islander Health Worker Journal May / June 2007; 31(3) 3–11.
2. Joiner Jr. TE. The Clustering and Contagion of Suicide. Current Directions in Psychological Science 1999; 8: (3) 89-92.
3. Coloma C, Hoffman JS, Crosby A. Suicide Among Guarani Kaiowa and Nandeva Youth in Mato Grosso do Sul, Brazil. Archives of Suicide Research, 2006; 10: 191-207.
4. Beautrais AL. Risk factors for suicide and attempted suicide among young people. Aust N Z J Psychiatry 2000; 34: 420-436.
5. Pompilli M. Mancinelli I. Giradi P. Ruberto A. Tatarelli R. Child suicide: a major issue in paediatric health care. Issues in comprehensive Paediatric Nursing 2005. 28; 63-68.
6. Dodson M. The Human Rights and Equal Opportunity Commission's Social Justice Report. (2005) in Close the Gap – Solutions to the Indigenous Health Crisis facing Australia. Oxfam. 2007. http://www.hreoc.gov.au/social_justice/health/summary.html
7. Hassan R. Social Factors in Suicide in Australia. Australian Institute of Criminology. 1996: Feb (52) 1-6.
8. Measey ML, Li SQ, Parker R, Wang Z. Suicide in the Northern Territory, 1981-1992. Med J Aust. 2006 Sep 18;185(6):315-9.Condon
9. Wilson T, Condon JR, Barnes T. Northern Territory Indigenous life expectancy improvements, 1967-2004. Australian & New Zealand Journal of Public Health. 2007:31: 184-188.
10. Krzysztof K. Norris F. The Experience of disaster: Individuals and Communities Sharing Trauma. In Gist R. Lubin B. editors. Response to Disaster: Psychosocial, Community and Ecological Approaches. Brunner / Mazel; 1999:29.
11. National Coroners Information System 2000; August: Victoria. [cited July 2007] Available from: www.ncis.org.au
12. Johansson L. Lindqvist P. Eriksson A. Teenage suicide cluster formation and contagion: implications for primary care. BMCA Family Practice 2006; 7:32.
13. Clark DC, Horton-Deutsch SL. Assessment in Absentia: The value of the Psychological Autopsy Method for Studying Antecedents of Suicide and Predicting Future Suicides. In Maris RW, Beaman AL, Maltsberger JT, Yufit RI. editors. Assessment and Prediction of suicide. New York: Guildford Press; 1992.
14. Beskow J, Runeson B, Asgard U. Ethical aspects of psychological autopsy. Acta Psychitrica Scandinavic 1991; 84: 482 – 487.
15. Jones MB, Jones DR. Preferred pathways of behavioural contagion. Journal of Psychiatric Research. 1995 May-June: 29(3): 193-209.
16. Jones MB, Jones DR. The contagious nature of antisocial behaviour. Criminology. 2000 Feb. 38(1): 25-46.
17. De Leo D. Dwyer J. Firman D. Nuelinger K. Trends in Hanging and Firearm Suicide Rates in Australia: Substitution of Method? Suicide and Life-Threatening Behaviour. 2003; 33(2): 151-164.
18. Hunter E, Reser J, Baird M, Reser P. An Analysis of Suicide in Indigenous Communities of North Queensland: The Historical, Cultural and Symbolic Landscape. Report for the Mental Health / Health Services Development Branch. Commonwealth Department of Health and Aged Care: Canberra; 1999.
19. Chikritzhs T, Pascal R, Gray D, Stearne A, Saggers S, Jones P. Trends in alcohol-attributable deaths among Indigenous Australians, 1998-2004. National Alcohol Indicators, Naional Drug Research Institute. Perth 2007; Bulletin 11: 1-4.
20. Arseneault L, Cannon M, Witton J, Murray RM. Causal association between cannabis and psychosis: examination of the evidence. British Journal Psychiatry. 2004; 184: 110-117.
21. DeLeo D, Evans R, Neulinger K. Hanging, firearm and non-domestic gas suicides among males: a comparative study. Australia and New Zealand Journal of Psychiatry. 2001; 36: 183-189.
22. Hunter E, Harvey D. Indigenous Suicide in Australia, NZ, Canada, & US. Emergency Medicine. Aust. Society for Emergency Medicine Pub 2002; 14: (1) 14-23.
23. Tatz C. Aboriginal suicide is different: Aboriginal youth in New South Wales, the Australian Capital Territory and New Zealand: Towards a Model of Explanation and Alleviation. Criminology Research Council Project. 1999; 25/ 96-7.
24. Shaw D, Fernandes JR, Rao C. Suicide in children and adolescents: a 10-year restrospective review. American Journal of Forensic Medicine and pathology. 2005; 26(4): 309-315.
25. Mishara BL. Conceptions of death and suicide in children ages 6-12 and their implications for suicide prevention. Suicide and Life-Threatening Behaviour. 1999; 29(2): 105-118.
26. Thompson R, Briggs E, English DJ, Dubowitz H, Lee LC, Brody K, Everson MD, Hunter WM. Suicidal ideation among 8-year-olds who are maltreated and at risk: findings from the LONGSCAN studies. Child Maltreatment. 2005; Feb. 10 (1): 26-36.
27. Dempsey KE. Condon JR. Mortality in the Northern Territory 1979-1997. Darwin. (Aust) Epidemiology Branch. Territory Health Services; 1999.
28. Chondur R, Guthridge S. Population data in the Northern Territory. Department of Health and Community Services, Darwin: Northern Territory Government Printer; 2006.
29. Cantor C, Neulinger K. The epidemiology of suicide and attempted suicide among young Australians. Australian and New Zealand Journal of Psychiatry. 2000; 34: 370-387.
30. Procter NG. Parasuicide, self-harm and suicide in Aboriginal people in rural Australia: A review of the literature with implications for mental health nursing practice. International Journal of Nursing Practice. 2005; 11: 237-241.
31. Tousignant M. Suicide in Small-Scale Societies. Transcultural Psychiatry. 1998; 35 (2) 291-306.
32. Apuatimi A. Addressing Suicide in the Tiwi Islands and Beyond. Inaugural Postvention Conference "Living Hope" in Sydney. Unpublished. 2007.
33. Palmer C, Waterford G, Grant S. Central Australian Aboriginal Bereavement Service Development Issues: Surviving and Healing the Family After Suicide – Discussion Paper. Inaugural Postvention Conference "Living Hope" in Sydney. Unpublished. 2007.
34. Whitt HP. Where did the Bodies Go? The social construction of Suicide Data, New York City, 1976-1992. Sociological Inquiry. 2006; 76: (2) 166-187.
35. Brough M. Interview Living Black – Mal Brough, Federal Minister for Indigenous Affairs. May 2006
36. Raphael B, & Wooding S. Assessing Traumatic Bereavement. In Wilson JP, Keane TM. Editors Early Intervention for Trauma and Trumatic Loss. Guilford Press. New York 2004; 492-512.
37. Hanssens LM & Vigona M. Crisis Intervention Committees – Indigenous Community Development Model Life Promotion Program (Top End). National Suicide Prevention Australia Conference. Sydney 30th Oct. – 1st Nov. 2004 Conference Proceedings. Unpublished.
38. Velting, D M & Gould M S (1997) Suicide Contagion in R. W. Maris and M. M. Silverman. Review of Suicidology. The Guilford Press. New York.