

Research Is Everybody's Business! Seminar Series

Professor Bob Goldney: Suicide Prevention is Possible. *19 February 2004*

Dr Kathy Griffiths, Director, Consumer Research Unit:

On behalf of the Consumer Research Unit and the Centre for Mental Health Research, welcome to this, our fourth public lecture in the series "Research is Everybody's Business".

I think that its clear from the large attendance here this evening that suicide really is a major concern in the community. Governments have directed funding to suicide prevention programmes but too often these programmes aren't evaluated properly. To want to save lives, we've got to develop programmes that work and that means proper research and evaluation. And that's why we're delighted that Professor Bob Goldney has agreed to come along tonight to provide a research perspective on the subject of suicide prevention. Now Bob Goldney is a Professor of Psychiatry at the University of Adelaide, he has published over two hundred papers, several books and many book chapters. He is a past president of the International Academy for Suicide Research and the International Association for Suicide Prevention. He is a member and past board member of the American Association of Suicidology and he is a member and past vice president of Suicide Prevention of Australia. And if that's not enough he has won many awards including the Suicide Prevention Australia award for outstanding contribution to suicide prevention, so I think he probably knows what he's talking about. We

are indeed privileged to have him here with us this evening and I would like you to join me in welcoming Professor Bob Goldney now talking about 'Suicide prevention is possible'

Prof. Bob Goldney, Department of Psychiatry, University of Adelaide:

Thank you very much Dr Griffiths. I think the more you learn about a subject the more you realize you don't know about something, so, I think I'm an expert in what we don't know about suicidal behaviour. But I would like today to share some of what we do know. I would also like to say I'm really delighted to be able to speak to this gathering because I think Dr Griffiths' unit is unique in Australia, probably in the world, and it's great how the community have been brought into research into mental disorders. I think it's the way ahead. I think the time is right for this sort of community initiative to take place and to work, and the work that Kathy Griffiths and her colleagues is doing is really ground breaking.

SUICIDE PREVENTION IS POSSIBLE

I always like to start off talking about suicidal behaviour with this quote, its over two hundred years old. Jonas Hanway, a social commentator, said that "since tea has been in fashion, even suicide has been more familiar amongst us than in times past." Now, when tea was introduced into England from the colonies, there must have been a few extra suicides in London and so people put two and two together and came up with seven. Since that time people have been doing the same thing, because often when suicide happens there might be something happening in the community and people almost inevitably relate them together. Very often you can get wrong conclusions, so I think one has to be very sceptical about a lot of things that are written, not just about suicidal behaviour, but about everything. I guess that's what research is about, challenging ideas and trying to find out what really is happening.

Australian Data

What about the suicide rates in Australia? Where does Australia fall in the world? The Australian, and also the New Zealand, the Canadian and United States suicide rates are middle of the range. There are a number of countries with very low rates, and these are not credible, because if you talk to people from those countries there is in fact quite a lot of suicide occurring, but it doesn't get recorded for a number of reasons. Countries with the highest rates include some of the old Russian Federation Countries, and Sri Lanka is also very high. The only other country that I will refer to is China, where females are more than males. It is the only country in the world where overall, more females than males take their life. As noted, Australia is about the middle of the range of suicide in the world.

In Australia males to females have always been about 3 or 4 to 1, and the peak was in 1997 - 2723 suicides. In the last three years there has been a reduction, which is quite gratifying when you compare it to the peak. Although I must say it is still greater than it was 15 years ago.

One way of looking at the suicide rates is to compare different time periods, and different age group. These tables show suicide rates one hundred years ago, 40 years ago, 20 odd years ago, and 5 years ago for males and females

Suicide rates per 100,000 population in Australia
1891-1910, 1964, 1980 and 1999 by sex and age

MALE

Age	1891-1910	1964	1980	1999
15-19	3.2	5.8	9.9	14.2
20-24	11.9	16.3	25.3	30.5
60-64	63.7	39.7	22.3	19.6
65-69	56.0	39.7	22.8	19.0

Suicide rates per 100,000 population in Australia
1891-1910, 1964, 1980 and 1999 by sex and age

FEMALE

Age	1891-1910	1964	1980	1999
15-19	4.0	2.9	2.3	4.2
20-24	6.7	7.7	6.6	6.6
60-64	10.2	17.1	5.5	5.8
65-69	6.9	21.0	7.4	4.9

What the newspapers always talk about is a dramatic increase. Young males certainly have about trebled their suicide rate over the last one hundred years, particularly the last 40 years. However, what the newspapers don't talk about is the good news. The good news is that for older persons the very high suicide rates of one hundred years ago have now come down. In fact, Australia has one of the lowest elderly suicide rates in the world, that's for males. For

females, you will see that really there hasn't been much of a change. These figures are really not much different to what they were in the past. So when the newspapers talk about the increase in youth suicide, in fact what they really mean is the increase in male youth suicide, rather than in female youth suicide. Again, you will see that with the older age groups there has been a decrease for females, but not as dramatic. There was an enormous increase in the mid 1960's, and I'll talk about that later, but it was caused by doctors; it was caused by doctors prescribing barbiturates, and that's really a black mark on our medical prescribing.

Now, to look at the suicide numbers in a slightly different way. Each year about 1 in 8000 people complete suicide. Suicide attempts occur in about 1 in 300; and suicidal ideation occurs in about 3 percent of the community. So they are the sort of figures that we are dealing with; which really add up to a lot of people.

Risk Factors and Suicide Prevention

Now these are the risk factors for suicide. I won't go through them one by one because they will be familiar to you, I'm sure.

Risk factors for suicide

- Mental disorders
- Social isolation
- Separation/Divorced
- Male
- Substance dependence
- Unemployment
- Family history of suicide
- Early childhood deprivation/loss
- Parental domestic violence
- Childhood sexual abuse

They are all commonsense issues which have been known for many years, but most are not only associated with suicide in adult life, but also with any form of mental disorder. So it's not surprising that they are associated with suicide as well. Now as a result of this general knowledge the World Health Organisation, back in 1993, put up six basic steps for suicide prevention.

Six Basic Steps for suicide Prevention

WHO, 1993

1. Treatment of psychiatric patients
2. Gun control
3. Detoxification of domestic gas
4. Detoxification of car emission
5. Control of toxic substance availability
6. Toning down reports in the press

Now I think you will agree with me that there are only three basic steps. There is the treatment of patients who have psychiatric illness; two, three, four and five refer to control of access to the means of suicide; and the last is toning down of reports in the press.

Now all of that sounded uncontroversial, but then a couple of English psychiatrists made these comments. First of all in 1994, Wilkinson noted that:

“the reality is there is no convincing evidence that education, improved social conditions and support, or better training plays a substantial part in preventing suicide,” and Gunnell and

Frankel stated that: “no single intervention has been shown in a well conducted randomised controlled trial to reduce suicide”.

Now this made everybody feel pretty depressed because, what have we been doing? Is it true that we can't prevent suicide? Now the trouble is that these statements are from researchers who want to rely on randomised controlled trials all the time. Well, randomised controlled trials are very important. However, they have become like one of the new religions in medicine. For a randomised controlled trial you get your subjects who might be prone to suicide; you give an intervention; you have a control group, equal numbers, same characteristics; you compare the outcome; and ideally the subjects and researchers should be blind as to what treatment is being provided. This is the 'ideal' and it's a very good model for drug treatment.

However there are problems. Is it ethical to give no treatment to a person who is suicidal? Well, my own feeling is that is not. Randomised controlled trials also require sufficient numbers of people to give valid results. Can we select those who may suicide to go into the trial? Everyone thinks that we can. Suicide is dramatic; it imprints itself on us when we are involved with it. Everything is easy in retrospect; everything attains a clarity and certainty that is impossible to achieve at the time. However, the reality is that we cannot predict suicide in an individual. I think this is very important, because if so called experts can't predict suicide, how can a family member, or a prison guard, or a nurse in an A & E department? It is just impossible to predict suicide with absolute certainty in the individual person.

I would like to illustrate this by describing a study from Pokorny in the United States. He examined discharged persons with depression from a Veterans hospital, and of 4800, 67 took their lives. He used a statistical technique called 'discriminant functional analysis' and found that twenty items distinguished those who died by suicide. Then he used these “predictions” see if he could identify those who were going to suicide. He identified 35; just over half of those

who suicided. However, the dilemma was that as well as missing about half of the suicides, there would have been 1206 false positives out of the 4800 subjects. So you can see, we just cannot predict who is going to suicide, other than in a very broad general sense.

The impediments to the prediction of suicide are that there is what technically is called a low base rate, and the predictors lack specificity. Many people have the so called risk factors, but there are going to be too many false positives. Now that has very important implications in terms of whether or not you can mount a randomised controlled trial to prove that we can prevent suicide. Consider the numbers that you would have to have. For example, after people have been in a psychiatric hospital we know that about one percent suicide in the subsequent year. If we wanted to get a fifteen percent reduction, we would need 142,000 subjects in a research project. Now there are no research projects where we could get that sort of number. And so when people say that there are no randomised controlled trials to demonstrate the prevention of suicide, it is misleading and provocative. What we need is pragmatic evidence base medicine. We need to use innovative methodologies, and I would like to share with you a number of pieces of evidence from an increasing number of sources that show that we are able to prevent some suicide.

SUICIDE PREVENTION INITIATIVES

These are the areas I'll be touching on. First of all, the restriction of access to method, briefly on the media, and a bigger section on the treatment of mental illness. Then a little bit about national programmes and some recent population studies that may be of interest.

Reduction of Access to Means

First of all reducing the access to means. What are the means of suicide in the Australian community? Over the last 10 years, suicide by medications, such as antidepressants and hypnotics, has fallen to about 14 percent. Carbon monoxide poisoning by car exhaust has also

come down a little, but it is about 20 percent; but hanging has gone up from 23 percent to about 44 percent. And hanging is not only just for males. In 1997, it was the first time in our history that hanging overtook drugs as the main cause of death by suicide for females. It has remained the most important cause. Now 40 percent of women who die by suicide do so by hanging. There seems to be a culture that hanging is not very serious. Also, if you're thinking in terms of restricting access to means, you can legislate against firearms, but how can you legislate against rope? It is just impossible. So we need in some way to educate the community that hanging is very lethal. You just don't do it. Use of firearms has come down in the last 10 years, and in fact it has been coming down since the early 1980's. It probably hasn't had anything to do with Port Arthur, because it was coming down anyway. The others – drowning and jumping – come to about 13 or 14 percent.

So what has been done in terms of restriction of access? Well the first three reports I will refer to were simply naturalistic observations of what happened.

Oliver and Hetzel, in the early seventies, reported that barbiturates were contributing to suicide and that by restricting the number of barbiturates that could be bought, and by putting them in blister packages, the suicide rate in vulnerable women reduced quite dramatically. The second report was in relation to replacing toxic coal gas with North Sea gas. When North Sea gas came on stream in the UK, suicide decreased by about 30-40 percent because poisoning in a gas oven was one of the main ways of dying. In fact there has been a sustained reduction, so substitution of method doesn't necessarily always occur as some people rather cynically say. If you can buy time, you can often save a life. The third report was of restricting bridge access. A fascinating study 20 odd years ago reported that in the first four or five years after the Sydney Harbour Bridge opened, there were about 70 suicides. In the subsequent 40 odd years there were eight. They put in barriers to prevent jumping. Very simple. We don't know how many went on to other methods, but at least it saved some lives.

Another study from the UK about paracetamol was a very carefully conducted study before and after the introduction of legislation to reduce the numbers of paracetamol that you could buy over the counter. Death by paracetamol is a particularly distressing way to die, because very often people take 40 or 50 paracetamol and you'd see them say 24 or 36 hours later, and they would say, "look I didn't really mean it" and "I was depressed at the time," and then two or three days later they go into liver failure and often die. Keith Hawton and his colleagues demonstrated that there was a reduction of overdoses and deaths by paracetamol, after the change in legislation. There was also a reduction in the number of liver transplants required in England. There has also been a study, not as rigorously done as this, in Australia, which has demonstrated similar findings.

Firearms legislation is worth a whole lecture in itself. I won't provide any references because you choose your references to suit your audience. The reports are about equal, but I prefer the studies which have demonstrated the wisdom of restricting firearms. My own feeling is that you don't need to invoke suicide as a reason for having legislation to restrict firearms. Why do people need guns?

Car exhausts. Technology is available to minimise deaths from this method. Remember there are probably about 20 percent of suicides by carbon monoxide poisoning. Catalytic converters on more modern cars make it harder to take your life. Carbonmonoxide sensors in a car's cabin would cost 60 or 70 dollars, and could switch off the engine. People are investigating that. Exhaust design – making the exhaust with baffles so that you couldn't attach a hose to it. The technology is available. It needs a political party with a strong majority to introduce legislation in this area. Quite a number could be saved in this manner.

The Media

What about media approaches? These are based on the copycat theory. My own belief is that this influence is overrated. It is very distressing when the media talk about suicide, particularly for the relatives of those who die by suicide. But in fact it probably only influences, at the most, about three to five percent in certain age groups such as young impressionable males and females. Overall it probably has an impact of about one or two percent in the community, and I'll compare that to some of the other contributing factors later. However, modifying media reporting does work, but it works in very small areas. For example, the best study is from Vienna. In the early 80's there was a new subway system in Vienna. There was an increase of reporting of suicide in that first few years, and then a number of people lobbied the newspapers to abstain from reporting. There was a reduction of 75 percent of subway suicides. But those suicides were only a very small proportion of the Austrian suicides. However, it is important to make sure that the media are responsible in their reporting. But in terms of overall impact it is not all that great. When you weigh up the fact that we like to use the media to get across our message, I think on balance we have to say that more good than bad comes out of media reporting.

TREATMENT OF MENTAL DISORDERS

Let's move onto the treatment of mental disorders, because I believe that this is particularly important, and I like to think that the evidence is getting stronger and stronger.

How important is it? This can be explored by psychological autopsy studies. What that means is that just like in a physical autopsy where you get all the information about a person's physical illnesses before their death, so too do you with a psychological autopsy. You get all the information about their emotional health. There have been studies done from a number of different countries and there's a consistency about these studies which is quite extraordinary. That is that about 90 percent of those who suicide have a mental disorder at the time. And I've

just reviewed an intriguing paper for a journal, which looked at the 10 percent who didn't get a diagnosis and compared them to those who did have a diagnosis and also to a control group. It is fascinating that those who didn't get a diagnosis had more symptoms than the control group, but they didn't have enough symptoms for a formal diagnosis. They had had the same number of previous suicide attempts as the suicides. So really, those 10 percent who don't actually get a diagnosis, look much more like those who have suicided rather than a control group. My own feeling is that it is not normal to suicide.

Now, recent statistical methods have enabled some of the contributing factors for suicide to be placed into perspective, to see how important they may be. I think this is very important. I would just like to digress at this moment to talk about the population attributable risk statistic. This needs some explanation. I can get my head around it by thinking about smoking and lung cancer. We all know that smoking causes lung cancer. But we all know that not everyone who smokes gets lung cancer. Now if you could get rid of all smoking, you'd get rid of 60 percent of lung cancer. So the population attributable risk of smoking for lung cancer is 60 percent. Now, we can use this statistic in other areas. For example, what about instead of smoking we have depression and instead of cancer we have suicide or attempted suicide.

Let us examine an extraordinary series of studies from Danish Registers. Denmark has longitudinal data over decades. They examined 21,169 suicides and used the PAR statistic. They found that that PAR for suicide of psychiatric illness requiring hospitalisation was about 40 percent. So if you could eliminate all psychiatric illness which required hospitalisation, you'd get rid of 40 percent of suicides. Consider another contributing factor: unemployment. If you eliminated unemployment, you'd avoid 2.8 percent of suicide. Now, when you think about newspaper reporting about the relative importance say of mental disorders compared to unemployment, how often do you see newspaper headlines – 'Unemployment – cause of suicide!' Newspapers love that, but the reality is that its importance is very very minor

compared to mental disorders. Unemployment should be tackled in its own right. Just like firearms. One shouldn't be using suicide to try and lobby about unemployment.

Non-Medication Approaches

It's all very well knowing this, but does treatment of mental disorders reduce suicidal behaviour? What I'd like to do now is to consider broad treatment approaches, both non medication and medication.

First the non medication treatments. Let us examine routine assessment, by which I mean whether or not someone has actually been assessed at an A & E department. That is, have people had the potential benefit of routine assessment? There have been two important studies from England recently. First, those who were not assessed in Oxford had a greater repetition of deliberate self harm. The second study was from Northern England, from a group of about eight different hospitals where there were similar results to the first study. In fact, they calculated that you only need to assess twelve patients to prevent one repetition of self poisoning. These same researchers stated that if we assume that 50 percent of patients are assessed currently, we might prevent 7000 repeat episodes of self poisoning by complying with existing guidelines and ensuring that all patients are properly assessed. That's not rocket science – its just properly assessing people. Now if you extrapolate those data to Australia, with Australia 20 million and England about 60 million, there would be 2000 fewer attempted suicides in Australia by everybody having an assessment, rather than being sent off or leaving without assessment.

What about the specific psychotherapies? The best evidence is for what is called dialectical cognitive behaviour therapy, which has been described by Marsha Linehan, from the United States. Specific for borderline personality disorder, it's a standardised, codified way of practicing, with homework. It is really quite a rigorous approach and it does result in less

repetition of self harm. There have been several studies which have demonstrated that. There have also been a number of other studies. First of all, Janine Stevenson and Russell Meares in Australia demonstrated this using, not exactly CBT, but structured psychotherapy with homework. Similarly, other groups from the United States have demonstrated a significant reduction in repeat attempted suicide after persons with borderline personality disorder had entered their programs.

The themes in psychotherapy with suicidal persons are the themes that have been written about in the psychotherapy literature for many years. We know that suicidal behaviour does have an interpersonal context. There is a communication aspect, the 'cry for help'. We know that sometimes there is a theme of aggression. Particularly the omnipotent mastery. That was illustrated well to me recently by a woman whose nephew took his life. On a pool table he wrote, 'now you will be sorry'. That is omnipotent mastery, you can't get back at me because I'm dead. These are the sort of issues that are addressed in a very structured way in these psychotherapies.

Moving on, and I apologise for jumping from one topic to another, but there's a lot to cover. Suicide prevention centres, like telephone hot lines. It is difficult methodologically to prove that they work. There have been – to 1997 – and I don't know of any studies since then, 14 studies. Seven showed a decrease in suicide, where the centres were, one an increase and six no change. Overall there is a statistically significant reduction in suicide. So on balance Lifeline, and other crisis lines, do do some good.

I'd now like to talk about a couple of what I've called 'innovative studies', because they show the diversity of ways in which one can approach this problem with some confidence. First the Postcard Study and then the Tele-Help, Tele-Check approach.

Postcards – from Jerry Motto and his colleague in San Francisco. Of 2782 people who had attempted suicide, all were offered ongoing treatment. 1939 accepted the treatment, but for those who didn't attend, there was a contact group and a no contact group. The contact group were sent 24 postcards over a five year period. All it said was something along the lines of “you were admitted to the San Francisco General Hospital recently, hope things are going all right. If you need any assistance don't hesitate to give a call”. A minimum sort of intervention. What happened is that there were fewer suicides in the postcard group than in those who had no contact by postcard over the next 5 years. This study is being replicated in Australia at the moment by Greg Carter in Newcastle.

Next, Tele-Help, Tele-Check. Tele-Help means that elderly people have a distress alarm which they can call it if they get into strife. Tele-Check is simply using the telephone to ring up and see how people are. This was done in the Venice region of Italy, and there were only 6 suicides compared to an expected 20.9 for that population. In addition, there were fewer GP home visits, fewer hospital admissions and improved mood scores. So, again there's evidence available.

Now what are the common non pharmacological therapeutic components? I think it is fascinating to read some of the early psychotherapy literature. Truax and his colleagues, back in '71, talked about non-possessive warmth, genuineness and accurate empathy. And very often people who have been suicidal don't get that. So if you are able to get that in your psychotherapeutic approach I think you are a winner. In addition there is the “connectedness” to others. The word ‘connectedness’, some people don't like, but I think we all know what it means. At least somebody cares.

Medication Approaches

Now lets move on to medication treatment, primarily for schizophrenia and depression.

Schizophrenia has always been known to have significant risk of suicide. There is a 10 percent lifetime risk, 30-40 times higher than the general population. We've been pessimistic about the treatment of schizophrenia until this last, say 10 years. With the introduction of Clozapine in the United States, Meltzer and his colleague Okayli were very observant. Their patients on Clozapine, which is a drug reserved for those who have treatment resistant schizophrenia, seemed to have less suicidality. They were less depressed; attempted suicide rates went down; and the lethality of suicide attempts went down. Another group from Texas also looked at the suicide rates of all patients with schizophrenia in the United States, and the suicide rate for those on Clozapine. For those on Clozapine the suicide rate was about a quarter of the long term data for schizophrenia without Clozapine. However some people were very sceptical about these results and said "well, when you're on clozapine you've got to have blood tests taken once a week for the first few weeks and you get very good psychosocial follow-up, which they thought could explain the good results. So what they did was to mount a large study looking at Olanzapine, which is another new antipsychotic drug, and compare it to the Clozaril. They gave the same amount of clinical contact, the same amount of venepunctures etc, to these persons. There were 980 patients and 30 centres, and it was one of the most expensive drug studies that's ever been mounted. In fact, I very much doubt that it is ever going to be repeated. Clozapine came out better than Olanzapine on most parameters, which seems to confirm that Clozapine has anti suicidal properties. I won't dwell on this, but it emphasises the importance of early treatment for schizophrenia.

Now let us look at depression. Depression is a deceptively simple term. It can vary profoundly between different people. I think that it is important that we really understand that depression is a very distressing condition. In fact, some authors such William Styron can make us appreciate

just how awful depression is. And, as he says, he registers a strong protest against the very word because the word 'depression' has lost its currency to some extent. But I think that Styron really has captured it when he states that: "the pain of severe depression is quite unimaginable to those who have not suffered it. It kills in many instances because its anguish can no longer be born". And then he talks about the need for awareness to prevent suicide.

Depression and suicide. 60 percent of suicides have significant depressive conditions. Major depression is a very common condition, with a three to four percent life time risk of suicide. And even suicidal ideation is strongly associated with depression. Sometimes depression is minimised in young people. Lets just have a look some data. In an important study from David Shaffer and his colleagues in New York, they examined 120 young persons under the age of 20 who had died by suicide. If we wanted to get 120 young persons who suicided under the age of 20 in Canberra, I suspect we'd have to take about 15 or 20 years to get the numbers, but they can do it in New York in a couple of years. Two thirds had a mood disorder; 50 percent had had symptoms for more than three years. Bear in mind these are people 19 years of age or under. And less than five percent, that is less than one in 20, had had symptoms for less than three months. So what this means is there is a window of opportunity to intervene. Whereas in the past we didn't tend to recognise depression as well as we should in young people, it is certainly there, it is an entity and we have to try and pick it up earlier.

To get back to our population attribution risk studies, there have been a number of studies looking at depression and suicide, attempted suicide and even suicidal ideation. These studies have a certain congruence which is almost uncanny. The high 30's to high 50's percent. Get rid of all depression, which is pie in the sky, I appreciate that, as we will never be able to eliminate all depression, but we would reduce suicide rates by half. Actually some of the work that has been done in the unit here illustrates that it is possible to treat depression in interesting ways, including the internet, as well as some of the other methods I'm going to touch on.

Can antidepressants help? Well there are randomised control trials, which have demonstrated a reduction in suicidal ideation. But the low base rate that I was talking about before precludes any studies to actually reduce suicide per se in a Randomised Controlled Trial. So we need to have creative research methodologies. Possibly the first study which demonstrated that you could reduce depression in a community was from the island of Gotland in the Baltic Sea. This was a depression recognition and management program and it resulted in less use of inappropriate psychotropics such as benzodiazepine and antipsychotic drugs; fewer sick days and less hospitalisation; and fewer suicides, although it wasn't statistically significant.

Other important work from Sweden by Isacson examined pharmacological data, the amount of antidepressants that people who had suicided were taking. It worked out that treated depression had a suicide rate about half that for untreated depression. He stated that if you could treat depression adequately, you could save 400 of the 1000 suicides per year in Sweden, and he predicted that if the rate of antidepressant prescribing increased 5-fold, there would be a 25 percent decrease in suicide. Antidepressant prescribing has gone up enormously since the availability of the SSRI drugs, and so we had a natural experiment in Sweden and also in other countries. What Isacson found was that the suicide rate did go down by 19 percent, and there was a significant inverse correlation with antidepressant use. Isacson also did analyses of data from Finland, Denmark and Norway, and there were similar results.

Peter Joyce has reported the same from New Zealand, and Olfson and colleagues, have presented very persuasive results from the United States. In fact, Olfson's is a very elegant study. He has looked at antidepressant use different counties, in different states. Different counties have different suicide rates depending on the amount of prescription of antidepressant drugs. And there is a study from Australia, with Wayne Hall the lead author. I think it is just worth reflecting on the concluding comments in this paper, "that the results strongly suggest

that there is a causal relationship between increased antidepressant prescribing and a decline in suicide mortality.” They also noted that the most plausible explanation was that antidepressant prescribing was an indicator of improved pharmacological and non pharmacological treatment of depression.

There are other studies as well. Lithium is a mood stabiliser and over 30 years ago Brian Barraclough looked at 100 suicides and found that there were about 25 persons with bi-polar disorders and 20 of them were not on lithium. He stated that perhaps a fifth of suicides could be prevented with adequate lithium treatment. Then there is recent work from Germany that shows that if a person with a bipolar disorder has been on Lithium for longer than two years, the risk of suicide is the same as the general population. Other reports include those of Baldasarini and colleagues who collated all the studies that have been done to date. For over 6,000 persons, with 64,000 person years exposure to lithium, the risk of attempted suicide was three with lithium, and 46 without; and the risk of suicide with lithium was just under two, compared to no lithium of just over nine. These aren't randomised control trials, but I find the data very convincing.

Now, these treatment studies have focussed on specific conditions. Often co-morbidity is present. Depression with drug abuse, depression with personality disorder. When this is recognised, it gets even harder to prove that our treatments are effective. Therefore a broader approach is desirable, and that's really been the basis of most national programs.

The first national program was from Finland. There has been a reduction since 1985 after an initial increase. Other countries such as Norway and Sri Lanka, have had reductions. What about Australia? You'll probably all be aware there was a national youth suicide prevention strategy in the late nineties and that culminated in the national suicide prevention strategy from the year 2000, “Life” – living is for everyone. These were a number of “Action Areas” and I

guess you are familiar with some of them. Taken as a whole they embody a lot of the broad approaches to suicide prevention that I have been referring to.

What has happened in Australia? Well, the age standardised suicide rate for 2002 was 20 percent less than the peak of 1997. Still not back to what it was in the late 80's and early 90's, but it has gone down from the maximum in 1997. Male youth suicides declined 24 percent. Now I have taken the best figures from the peak of 1997, but that's what politicians do, so perhaps researchers can do it every now and again as well!

What I'd like to do now is hone in on a more specific treatment approach. These are two very recently published studies. First of all the US Air Force study. It is a whole of airforce approach. Remove the stigma from seeking help; enhance mental health literacy; change administrative policies to facilitate help seeking; and provide ready access to intervention services. What happened? They were able to compare the period six years before and six years afterwards in five million air force personnel. There was a 33 percent reduction in suicide, and also a decrease in homicide and family violence. These results are impressive.

The second study is the Nuremberg Alliance against depression. This has only been published in German so far, but it probably will be published in English journals soon as well. The aim was to inform the community about depression, train family doctors, enhance cooperation with community facilitators, and help support groups. It is called the Nuremberg Alliance because Nuremberg, which is a city of about 500 000, was used and a control city, Wurzburg, which is about 250-300 000, was the control city. There was a statistically significant reduction in suicidal acts in Nuremberg compared to Wurzburg. Unfortunately there wasn't a reduction in suicide, but the change was in the right direction, although not enough to be statistically significant. But even the reduction in attempted suicide is very, very encouraging, and that was

certainly statistically significant. That approach in Nuremberg is now being implemented in other parts of Germany.

OVERVIEW

So now to overview these management strategies. There is increasing evidence and it is not rocket science, it's not Randomised Control Trials, but these studies emphasise the importance of the use of standard treatments. In fact, the use of standard treatments has been known for many years. For example, let us go back to 1828 where Burrows said that "The treatment of the propensity to of suicide" was the same as "that which is applicable in cases of ordinary insanity". Let us go back even further. Lets go back 350 years. The first treatise on suicide in the English language was by a man called John Sym. He wrote: "Self murder is prevented, not so much by arguments against the fact which dissuades from the conclusion, as by the discovery and removal of the motives and causes. As diseases are cured by removing the causes, rather than of their symptoms".

I think people have sometimes lost sight of the fact that there are antecedents to suicidal behaviour which can be addressed, rather than focussing too much on the behaviour itself. To illustrate the fact that people have forgotten basic principles, let us examine whether standard treatments are used. A study from New York showed only about one in six of suicides were on psychotropic medication at the time of death. Bear in mind that over 90 percent of those persons have got some form of psychiatric illness. A study from Sweden showed a lack of continuity of care. How often do we see that? Particularly in the way mental health services are constructed, certainly in South Australia. There is a lack of continuity of care which is unacceptable. Another factor: Absence of enquiry about suicidal thoughts. Some clinicians just don't ask, and if people don't ask, often patients won't spontaneously tell us.

The next two studies are quite concerning. The UK National Confidential Enquiry, and work from Burgess and colleagues in Victoria reported that 22 percent and 20 percent respectively of suicides were probably preventable, but for poor assessment and treatment, poor staff patient communication and relationships, inadequate supervision and lack of continuity of care. I think it is very telling that those figures of 22 and 20 percent may be an underestimate, because, as the UK report said, the staff who provided information could be excused for underestimating, (because they wouldn't want to blame themselves) but they still felt that suicide was preventable in 22 percent of cases.

CONCLUSION

Overall, suicidal behaviours are associated with an enormous personal and societal burden. There are effective management strategies available, contrary to what was said back in 1994 by those English commentators. We will never get randomised controlled trials to demonstrate a prevention of suicide for the usual sort of treatments. The numbers are against us. It is statistically impossible to do so.

But, I don't want to over sell our capacity to prevent suicide. We can't prevent all suicide; we may only be able to prevent half of it. Some of the illnesses that people have are just too intractable. Often we don't get a chance to provide the treatments that we know may be of assistance, and often the assistance may not be available anyway, because health services aren't set up in such a way to provide it.

Overall, we need to remain optimistic. We need to lobby for social action in regard to the early antecedents, such as childhood depression and child abuse. However, I don't think they need to be lobbied for in terms of suicide prevention. They need to be lobbied for in their own right. They are important in their own right. You don't lobby for prevention of child abuse because it is going to prevent suicide in 25 years time. You lobby because it is inherently the right thing.

We also need to lobby for the enhancement of mental health literacy in the community, and meetings such as this are an excellent example of that and the work of Kathy's unit. Finally, I think we need to lobby for adequate treatment facilities for those who are already afflicted with emotional distress.

Thank you very much.