The Broader View of Suicide

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(18 July 1934 - 19 November 2019)

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CONTENTS

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PREFACE

Suicide is the leading cause of death globally and the second leading cause of death in young people. Suicide is individual specific; there are as many reasons for suicide as there are suicide cases. Suicide rates across the globe generally follow an upward trend. Developing suicide prevention strategies against a medicalised and politicised background has been shown to be complex and ineffective. It is against this background that suicide prevention is explored in this book.

Over the last century the suicide problem has been a one-sided and top-down medical affair with psychologists/psychiatrists claiming ownership of the problem. The implications of this exclusive affair are: a lack of impact towards the reversal of rising suicide trends, limiting suicide discourse to psychiatry/psychology, which has prevented a public discussion of suicide, which in turn has limited suicide research to seeking and identifying a mental (or a genetic) disorder as the cause of suicide, limiting suicide prevention strategies to a medical model with psychiatric intervention, and therefore politicising suicide prevention. This exclusivity has negatively affected suicide prevention with no impact on suicide outcomes, i.e. suicide rates continue on an upward trend.

For the medical model to be operationalised a mental disorder has to first manifest or be present for the medical model to then begin a course of action to stop suicide.

Regardless of the outcome – whether or not the course of treatment can stop a suicide – in this context the medical model is an intervention because it has failed to prevent suicidality.

On average this means that healthcare professionals and the public have to wait for signs and symptoms of mental illness before they can start an intervention of any kind.

Decades of suicide mortality data provide strong evidence that this method does not work. But the arrogance of this method dismisses suicide cases as those with a mental illness yet to be discovered, thus maintaining control over the problem.

If we had applied a scientific (theory/idea – formulate action – data and analysis – make decisions) approach to evaluating this method then the medical model would have been dismissed decades ago in favour of a more holistic and inclusive approach. As it has been, any downward suicide trend has been used to claim credit for a drop in suicide rates, and any subsequent upward trend is often explained by suicide being a complex social, economic, environmental, and mental illness issue, with more research being needed. Notice that the increasing trends have never been described as a failure of the medical model, but have always been blamed on the individuals for not seeking psychiatric help!

Suicide need not be complex. As a result, we are now lumbered with a very complex situation because developing a suicide prevention strategy based on the false premise that mental illness causes suicide is no different than looking for a light switch in a black box where there is no power/electricity input. Just because we have found a switch does not necessarily mean there will be light, as it may operate something else in the black box.

In this context, it can be visualised that the medical modellists, researchers, governments, and the public have become part of the suicide problem – but not all have a say in the direction of the suicide prevention strategy.

A negative aspect of the current mindset is that an individual is suicidal because s/he is mentally ill and vice versa. The implication of such a mindset is that the development of a suicide prevention strategy is no different than current mental illness intervention strategies which adversely influence suicide prevention policy formation, and suicide outcomes (i.e. no impact on suicide trends).

The major adverse outcomes for policy development are that governments around the globe, in particular in New Zealand, inject a colossal amount of taxpayers money into the mental health service specifically for suicide prevention, but what the public receives in return is a perpetual “more of the same” mental illness service. This perpetual motion is more striking in New Zealand where over recent years the government has pumped additional resources into the mental health service at every annual release of record suicide numbers, has set up an inquiry into the mental health service, and has come up with a “wellbeing” budget where $1.9 billion was allocated to mental health, with an emphasis on mental illness service delivery – *is this not “more of the same” at an even higher cost*?

This outcome – "more of the same" – is the result of an interventionist approach which only provides a service, whether or not relevant, at the point of the manifestation of symptoms or illness. Clearly, this means that it is too late to prevent the event occurring, but there might be time to intervene.

In this book, we make a clear distinction between suicide intervention and suicide prevention. Such a contextualisation guides the direction of the suicide prevention strategy. Clearly, intervention is not prevention. Policy makers must refocus and concentrate on prevention rather than intervention. But, the problem is that there is a huge gap between policy and the evidence that is supposed to inform the process of policy development.

This book provides some ideas and possible directions to fill in the gap. As demonstrated in the subsequent chapters it is the action rather than the belief that is important in stopping suicide, i.e. whether or not suicide is caused by mental illness the method of mental illness intervention has coincided with a rising suicide trend, so it is vital to try a different approach, such as public health, or the grassroots approach. One can define "suicide" as a function of whatever one wishes – but as long as "suicide prevention" is defined as *preventing* individuals reaching a point in their lives where they feel that suicide is a viable choice/option, then an appropriate action plan may present itself. In other words, based on the huge amount of suicide data, suicide trends appear independent of mental illness based interventions and strategies (see chapter 1).

In order to make some headway, there must be an admission or an acknowledgement that suicide prevention strategies based on mental illness intervention have failed, even if mental illness causes suicide. The facts are quite clear so why is it so difficult to understand that we cannot follow the same old method of intervention – we must move the point of leverage from mental illness to community where we can exert effective change in the lives of the individuals, neighbourhoods, communities, and society to remove suicide as a viable solution. And perhaps we should look at other options to develop a prevention strategy that could achieve this.

While many methods of suicide prevention have been suggested, the only ones to show limited success are those at the grassroots involving everyone, from parents to teachers, health care providers and the community as a whole. This book explores current and outdated perceptions of suicide

and presents novel approaches to prevention. The editors have worked on suicide prevention for over 20 years and have a unique perspective on the subject.

Post script

At the time of going to press, the New Zealand Chief Coroner's office had just released suicide numbers for the year 2018-19. Unfortunately, the number of suicides in New Zealand reached another record, for the fifth consecutive year, proving that suicide is not a mental illness and new methods of suicide prevention are desperately needed.

Said Shahtahmasebi
Hatim Omar
July 2019.

CHAPTER 1

INTRODUCTION: DYNAMICS OF SUICIDE

SAID SHAHTAHMASEBI & HATIM OMAR

Abstract

Suicide is a phenomenon that affects everyone. When it occurs it has a huge impact on family and friends and the community alike, but we are told to conclude presence of mental illness. Given that suicide has been associated with a wide range of risk factors this means that everyone is at risk. Suicide has been steadily rising globally – in New Zealand suicide numbers for 2019 reached record levels 5 years in a row in. This chapter sifts through the misinformation surrounding suicide, responsible for the perpetual failure to prevent suicide. In doing so, this chapter sets the scene for different perspectives and viewpoints of suicide which are presented in the proceeding chapters.

Keywords: suicide, medicalisation, mental illness, misinformation

Background

Over twenty-two years ago, the first author wrote a report based on suicide data extracted from patients' records in a mental health hospital in Leeds, UK. Since all the cases were patients of the hospital, it had been assumed that mental illness and depression were the cause of the suicides – it seemed a reasonable assumption to make. The incentives to proceed with the report were that the dataset provided additional non-clinical data from education, justice, social services and coroner's records (Shahtahmasebi, 2003). The data revealed that about one-third of the cases had no diagnosis, and only about 16% had depression either as the main or second/third diagnosis or mentioned by the psychiatrist in the patient's record commentary section. A more important revelation was that the cases in the

dataset formed about one-third of all successful suicides in Leeds (Office for National Statistics 2017). In other words, two-thirds of all suicide cases had no contact with mental health services and had no records. This means that we have no information about the mental health of two-thirds of all suicide cases, so how can we confidently assume mental illness or depression as the cause of suicide (Shahtahmasebi, 2003)?

The process of publishing the results was even more revealing. Suffice to say that it took over five years. As a researcher, the lack of interest from psychology, psychiatric and suicidology journals in the issues raised by the data was incomprehensible and bewildering. It goes against the ethos and philosophy of academic research and collaboration. Unfortunately, this was not a one-off experience and is more widespread than assumed (Hjelmeland & Knizek, 2019). The experience of applying for research funds was no different with proposals being rejected in spite of good reviews.

There is much confusion about suicide. Suicide prevention policy is based on tackling depression and mental illness with the assumption that treating mental disorders will make suicide go away. Although, suicide rates go up as well as down the overall trend continues in an upward direction (Pridmore & Shahtahmasebi, 2018; CDC 2018). Policy development often considers short-term rather than long-term suicide trends so creating independent periods where the rate is going up or down. Political interest is in periods where suicide is following a downward trend, in which case credit is taken for anti-suicide strategies. Thus often very little time is given for discussion when suicide is following an upward trend, decision makers claiming suicide to be very complex and pledging more funding for the same suicide prevention strategy.

A major problem has arisen from a mental illness based policy of suicide prevention. That is, firstly, wrongly, a failed suicide attempt is used as a predictor of suicide, and secondly, suicide cases are labeled as mentally ill and, vice versa, suicidality is assumed due to the presence of mental illness or depression. For example, in a coroner's inquest into the suicide of a young person who was described as popular, happy and successful academically with no signs of a mental illness or depression, the GP's testimony was:

> "I am desperately sad we had no insight into his mental health problem and so were not able to prevent this tragedy."

Why should the GP automatically assume there was a "mental health problem" about a case reported to have been a happy and popular person

with no signs of any health problems and no evidence of mental ill-health (Shahtahmasebi, 2005)?

In New Zealand, the policy of responsible reporting of suicide has limited public discussion of suicide to mental illness and depression, and has led to a policy of silence and not talking about suicide. The word "suicide" is rarely used in the reporting of suicides but clues, such as wording like "Police said there are no suspicious circumstances and the death would be referred to the coroner" and "where to find help" imply suicide (radionz.co.nz, 2019). This is an incomprehensible behaviour designed to cause conflict in ignorance in the public mindset given that suicide is a topic often portrayed in the entertainment media and freely available on the internet, including methods of completing suicide. So, the lack of high quality and relevant information in the public domain is the biggest problem in suicide prevention.

Misguided and misunderstood suicide prevention process

It has commonly been claimed that 90 to 100% of suicides were by people with mental illness based on psychiatric and psychological research to support the mental illness method of suicide prevention. This claim has no basis and has been rejected (e.g. see: CDC, 2018; Hjelmeland, et al., 2012; Shahtahmasebi, 2003; Shahtahmasebi, 2013b; WHO, 2014). Furthermore, the substantive theory supporting mental illness as the cause of suicide for the purpose of suicide prevention is non-existent, and adds complexity to the suicide problem, i.e., making the "experts", policy makers/politicians and the public part of the problem. Specifically, what are the main problematic issues and flaws with the current suicide prevention policy based on mental illness?

Irrelevant intervention rather than prevention

1. The ethos of the medical model is the presence of an illness for which the public would seek a medical intervention. Stretching this philosophy to suicide prevention means that this method heavily relies on (a) mental illness to manifest before it can apply an intervention, and (b) the affected individuals to seek medical intervention. On the one hand, if signs are detected then it is too late, i.e. we have failed to prevent suicide and it is time to intervene, and on the other hand, if mental illness is not detected or help is not sought then the prevention policy has failed.

2. Current evidence suggests that on average about one-quarter to one-third of all suicide cases come into contact with mental health services, and the remaining two-thirds to three-quarters were successful at their first attempt (Shahtahmasebi, 2003; Hamdi, et al. 2008).
3. So a suicide prevention approach that advises to look for signs of mental illness leads to two major problems: (a) the one-quarter to one-third of all suicides who received mental health intervention but went ahead and completed suicide, and (b) it being almost impossible to detect signs of mental illness and depression in those who have completed suicide on their first attempt and/or those who were not known to have symptoms of mental illness/depression or were good at hiding their symptoms.
4. The medical model of intervention leaves out the majority of suicide cases which we know nothing about.
5. Current suicide intervention strategies are based on psychological autopsies which seek to diagnose mental illness in suicide cases posthumously based on a third persons' evaluation of the mental status of the case prior to suicide. This flawed thinking is designed to achieve a high rate of mental illness amongst suicide cases in order to maintain an erroneous and misleading conclusion that suicide is caused by mental illness. This claim has been challenged and dismissed as a myth (e.g. see: CDC, 2018; Hjelmeland et al., 2012; Shahtahmasebi, 2005, 2008, 2013b, 2014; WHO, 2014).
6. The medical model of suicide intervention seeks to diagnose and treat a mental or depressive disorder which may not exist in cases exhibiting suicidality, thus ignoring "suicide" – it is not surprising that about one-third of all suicides who sought psychiatric help completed suicide during or soon after treatment.
7. Over the last few decades, in many countries, there has been a sharp increase in the prescription of antidepressants. In New Zealand, it more than quadrupled in the less than fifteen years of 1997 to 2012 (Antidepressant use in New Zealand doubles, 2012; Ministry of Health, 2007), yet over the same period, suicide rates continued an upward trend.

Cycles in suicide rates

8. Suicide data suggests that suicide rates follow a cyclic pattern, e.g. see Figures 1 & 2 and Table 1. A cycle is where suicide rates begin to go up, peak out and then begin to go down until they bottom out and begin to go up again. This pattern is repeated.

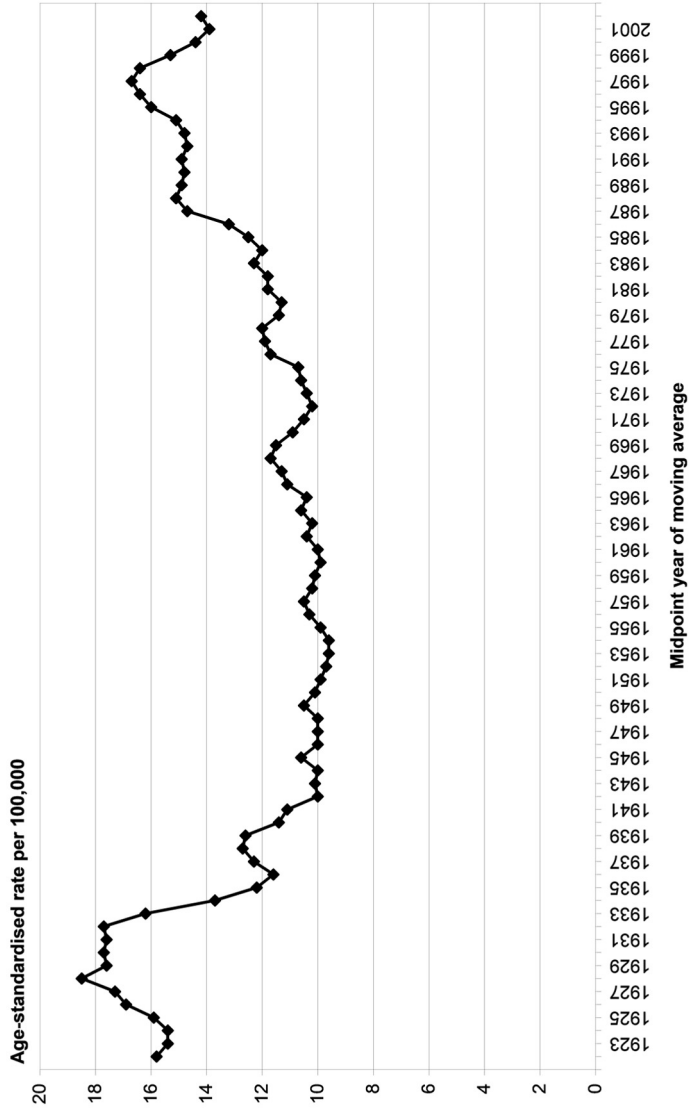

Figure 1 – Age-standardised suicide rates, three-year moving averages, 1921–2003 (*Source*: New Zealand Health Information Service (also see Health, 2006).

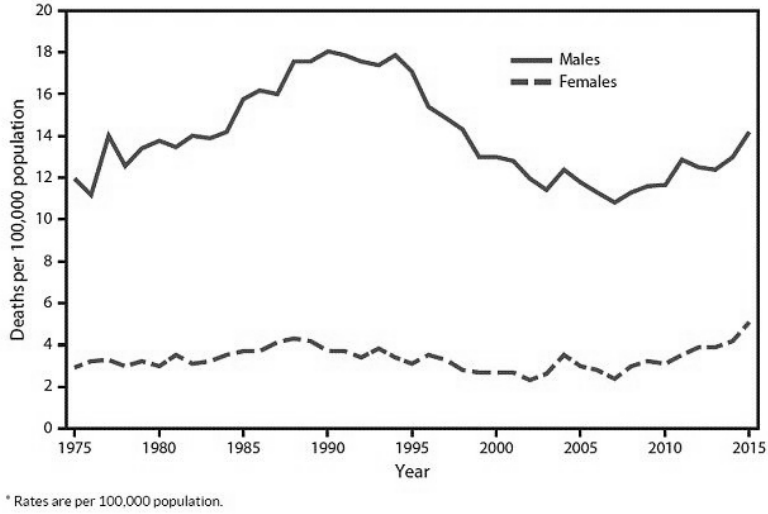

Figure 2 – San Diego's short term trend (*source*: Republished in daily mail https://www.dailymail.co.uk/health/article-5079715/Rise-teen-suicide-social-media-coincide-link.html).

It seems that no matter how much mental health intervention is introduced the cycle continues its regular pattern. For example, in spite of a policy of better access to mental health services introduced in Australia in 2006 suicide rates bottomed out and trended up; see Figure 3. *This provided strong evidence that increases in psychological/psychiatric service uptake do not lead to a commensurate reduction in suicides.*

9. In fact, during the first cycle in this short time series from 1993 to 2006, there have been quite a number of suicide prevention strategies – some were introduced as suicide rates were trending upward, and some during the downturn (Table 1 & Figure 3). But, suicide rates bottomed out in 2006 (beginning of the next cycle) and the introduction of the "Better Access" scheme of expanding mental health services to make them accessible to the public at large failed to slow down or reverse the upward suicide trend. In other words, these strategies were unsuccessful in breaking the cyclical pattern.

Table 1 – Suicide Prevention Actions and Suicide rates in Australia 1991-2016 (*sources*: Australian Bureau of Statistics, 2004a, 2004b; Jorm, 2018).

Year	Suicide Rates	Actions
1991	13.9	Rise in antidepressant use begins
1992	13.2	First National Mental Health Plan
1993	11.9	
1994	12.8	
1995	13.2	National Youth Suicide Prevention strategy
1996	13.2	Gun buyback
1997	14.8	
1998	14.4	Second National Mental Health Plan
1999	13.2	
2000	12.4	National Suicide Prevention strategy amongst other initiatives such as MindMatters
2001	12.7	
2002	11.9	Media reporting guidelines, Better Outcomes
2003	11.2	
2004	10.5	Third National Mental Health Plan
2005	10.4	
2006	10.2	Better Access
2007	10.6	
2008	10.9	
2009	10.6	Fourth National Mental Health Plan
2010	11.1	
2011	10.5	
2012	11.2	National Mental Health Commission
2013	11.1	
2014	12.1	
2015	12.6	New National Suicide Prevention Strategy
2016	11.7	

Sources: Australian Bureau of Statistics, 2004a, 2004b; Jorm, 2018

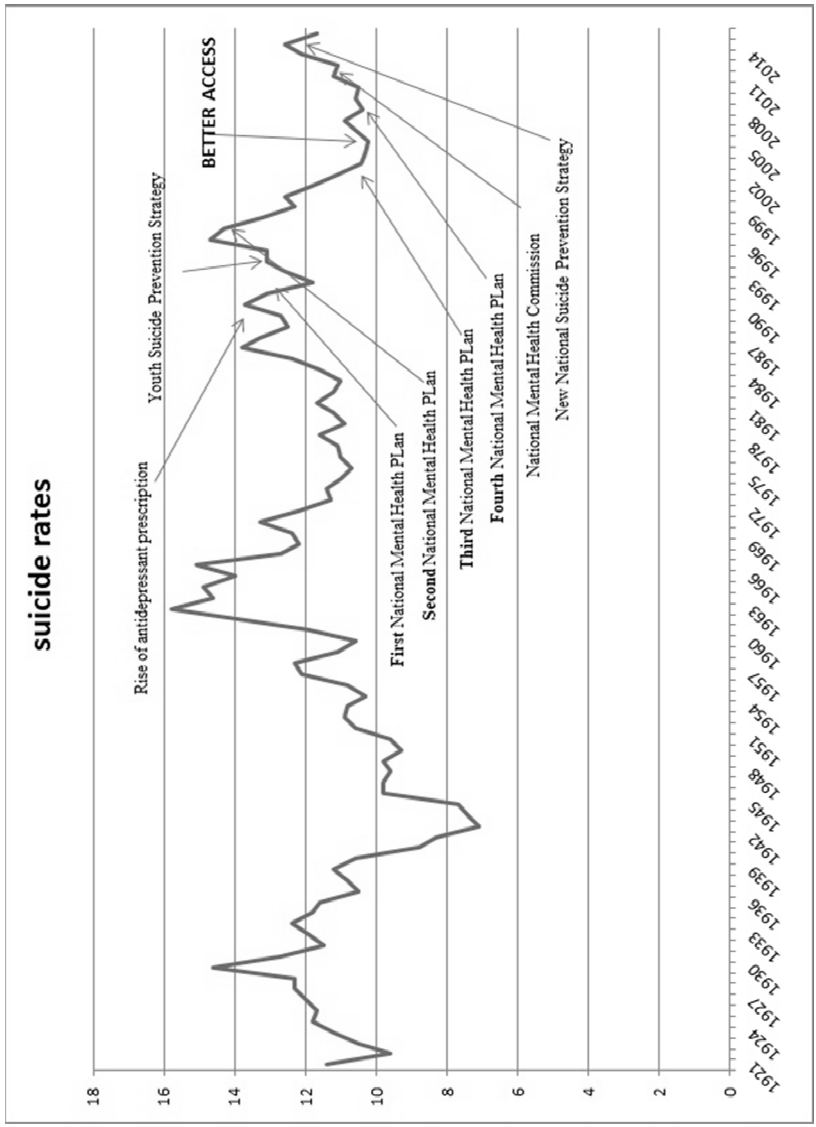

Figure 3 – Australian long-term suicide rates and prevention initiatives (*sources*: Australian Bureau of Statistics, 2004a, 2004b; Jorm, 2018).

10. Figure 3 is actually very useful in demonstrating that suicide prevention strategies, mental health activities and mental illness interventions have had no bearing on the Australian national suicide rates.
11. This pattern is not exclusive to Australia, as demonstrated in Figures 1 & 2.
12. Medical modellists use the cyclic pattern to justify the intervention policy as follows:
    a. when the cycle has peaked and is on the downturn it is argued that the intervention policy is working and that more funding is required to apply the same policy to other groups where suicide is on the rise, and
    b. when suicide rates have bottomed out and are on the rise it is claimed that suicide is a complex socio-economic, environmental problem and results also from mental illness disorders that have not been diagnosed yet, and more funding is demanded to research suicide!

Implications of cyclic patterns on practice and policy formation

One of the major issues in suicide prevention is the fact that research has ignored cycles and arrogantly claims that mental illness is the cause only when cycles are on the downturn, as described in point 12 above. As a result, we do not know much about what governs the cyclic patterns in suicide rates. The current knowledge of suicide, be it medical, social or another alternative, strongly indicates that the cycles are independent of any medical intervention. To have any hope of reversing the trend in suicide rates the cycles must be broken (as is demonstrated in chapter 26). Without any control over the cyclic patterns, the suicide problem will never be resolved but will become ever more complex.

13. Cyclic patterns in annual suicide rates are also prominent when plotting conflicting or competing suicide trends. For example, Figures 2 and 4 show cycles in male/female suicide rates, and similarly Figure 5 shows cyclic patterns in suicide rates for each age group.

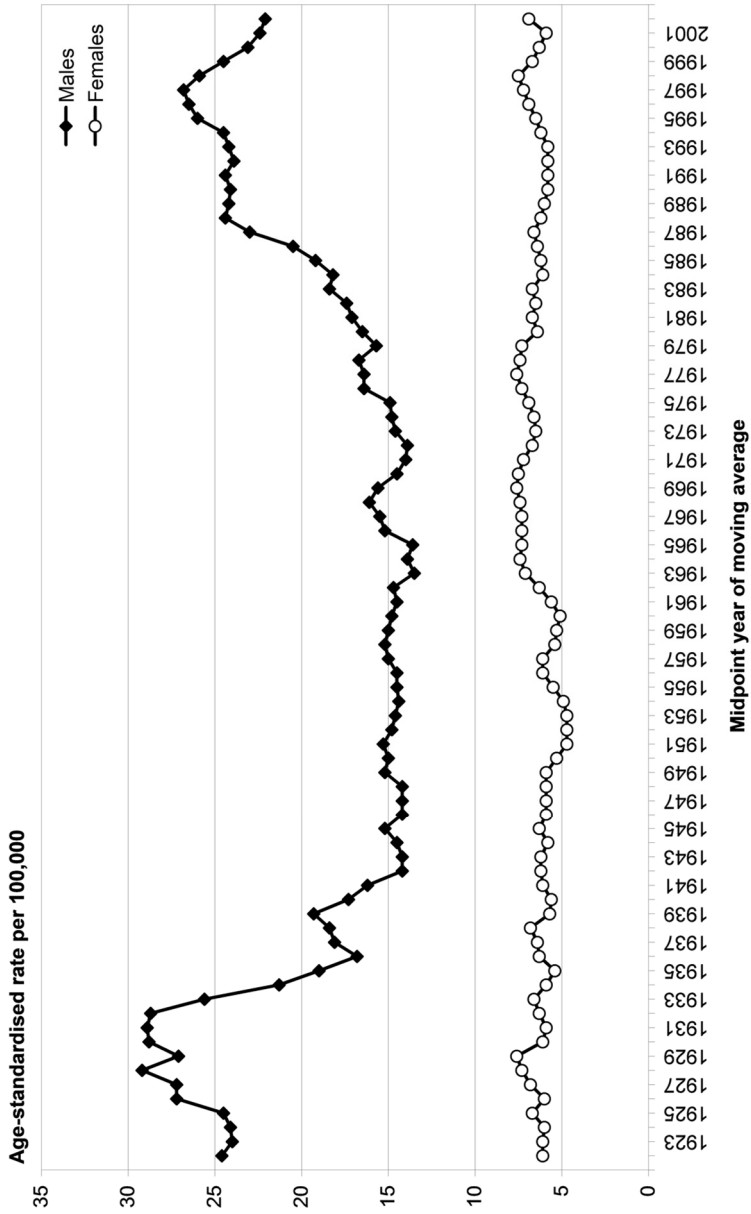

Figure 4 – New Zealand's long-term suicide mortality rate by gender.

14. It is extremely important to note the lagging-effect feature in these time series. That is, the cycles for each group do not start and finish at the same point in time. Furthermore, they may not have the same length. For example, in Figure 5, periods of ups and downs of suicide rates for each age group start, peak and bottom out at different times; the 15–24 age group's trend appears as a mirror image of that of the 45–64 age group. In other words, when one is increasing the other is decreasing. Moreover, the overall long-term trends for the older age groups (45–64 and 65+) are decreasing until in 1987–8 they cross over the increasing trends of the younger age groups (15–24 and 25–34). These trends seem to reverse in 1997–8; i.e., the suicide trends of the younger age groups peak and follow a downward trend while the the suicide trends of the older age groups bottom out and follow an upward trend. The difference in start-times and finish-times between the cycles of the different groups is called the lagging effect. In the context of suicide it means that the cycles for each group continue with ups and downs but relative to another group they may be out of sync by a number of years or a half cycle (when one peaks the other bottoms out).

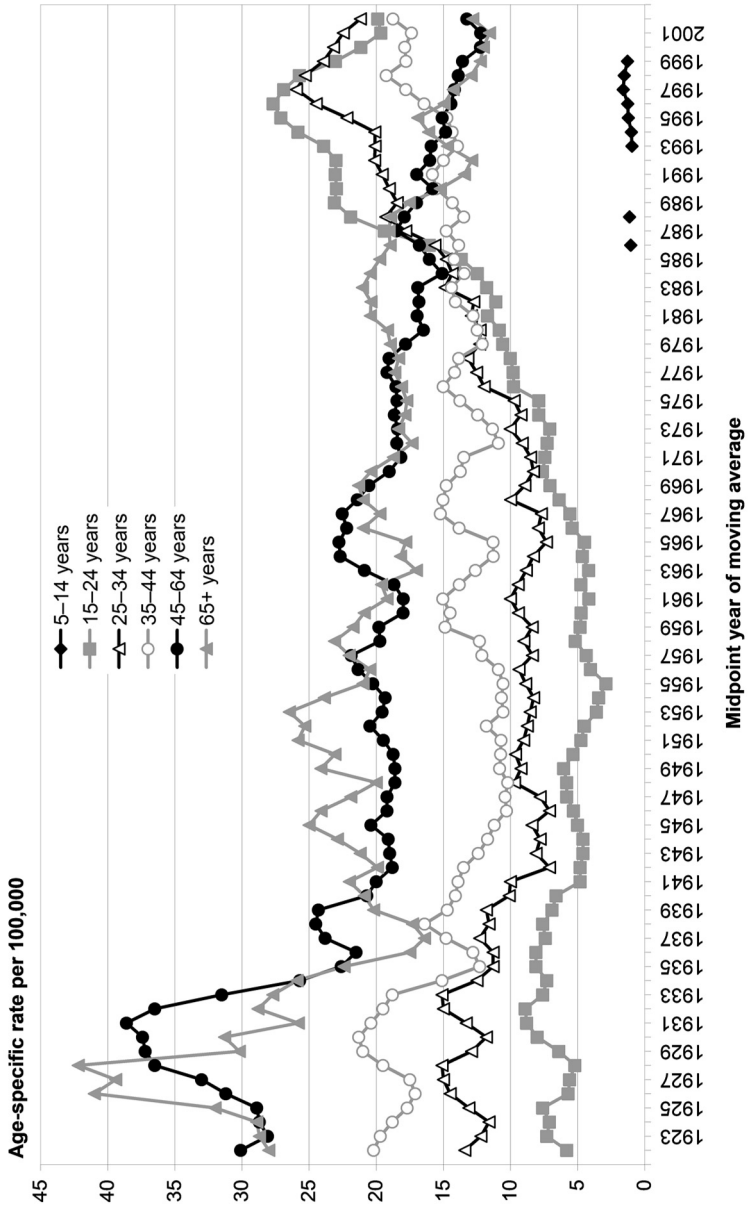

Figure 5 – New Zealand's long-term suicide mortality rate by age group.

15. Due to a paucity of quality and relevant suicide data, we do not understand why suicide trends follow a cyclic pattern, and why there is a lagging effect in cycles between groups. The problem is that not only has the mental health based suicide prevention strategy failed to break the cycles but such a strategy has created a poor practice of considering short-term trends in suicide rates. When a time series such as suicide rates is analysed as a snapshot or within a short project window the lagging effect in cycles is interpreted as: those groups whose suicide rates are lower having had access to mental health services, and those groups whose suicide rates are higher not having had. For example, every now and then the media, including academic journals, report a particular group to be at higher suicide risk, e.g. farmers, people with bipolar, younger people etc. But all we are observing is the beginning, the middle and the tail-end of the cycles for each group. So additional funding is regularly demanded by medical modellists to target these groups, and to reach more people with mental illness services which lead to "more of the same" suicide intervention.
16. And thus the pattern has continued.

The uncritical media

17. An uncritical media's portraying and reporting of suicide has helped establish the notion that suicide is caused by mental illness and depression as fact in the public mindset. Often when reporting on a suicide case the phrase "long battle with mental illness or depression" is used to imply the cause of suicide (Pridmore, 2019; Pridmore & Shahtahmasebi, 2018). But never is any evidence of cause and effect provided. The media frequently fails to equate "long battle with mental illness" with long-term psychological and psychiatric treatment and therefore ask questions such as: "What went wrong? Why didn't the intervention work?" And so the media inexplicably directs the reader to the same services in case of having suicidal thoughts. Depression and mental illness are automatically associated with a suicide case after the event and, vice versa, suicidality is assumed to be because of depression or a mental disorder.
18. Under the policy of secrecy in New Zealand, there is very little public discussion of suicide which has, as mentioned above, made the media a part of the suicide problem:
    a. Firstly, uncritical media reporting is keeping the public in the dark about suicide and suicide prevention.

b. Secondly, this is establishing a mindset by repeatedly associating mental illness and depression to suicide where evidence of cause and effect is lacking.
c. This mindset is a major source of bias and is difficult to account for in suicide research, thus leading to erroneous results.
d. The media, in particular in New Zealand, has failed to take notice of the WHO and CDC's announcement that suicide is not a mental health problem (CDC, 2018; WHO, 2014), and continues to persist with the mental illness model.
e. An uncritical approach to reporting has led to the media being blindsided in the political and economic analysis of suicide outcomes versus level of investments in the same preventional strategies. For example, the uncritical media has failed to observe and report the high costs of our current suicide prevention strategy in terms of resources and lives lost. The fact that governments make statements about suicide being a complex social and environmental problem but prevention still being mental illness based has evaded the media. Furthermore, this uncritical media has continually failed to even consider alternative suicide prevention strategies.
f. The media, in particular in New Zealand, has consistently failed to hold officials and the "experts" to account when they claim that suicide is a complex socio-economic and environmental and mental health issue, and on that basis allocate additional tax payer's money to suicide prevention.
g. For example, in 2006 the associate minister for health published the New Zealand government's suicide prevention strategy proclaiming a holistic approach (Associate Minister for Health, 2006). However, in political terms this holistic strategy was translated into 90% of all suicides having had depression and the associated suicide prevention funding being dedicated to combatting depression (depression.org.nz).

A top-down approach

19. Around the globe and in particular in New Zealand, the policy of not talking about suicide, together with an uncritical media, has helped to maintain a societal ignorance of suicide discourse. This, in turn, has created a top-down approach where suicide prevention information flows from the "experts" and policy makers to the public. This approach excludes other stakeholders and relevant and appropriate

methods from the process of developing a suicide prevention policy. Under the top-down approach, no one other than a psychiatrically trained person is qualified to discuss suicide prevention. This approach has cemented mental illness in the public mindset and has narrowed the politicians and decision makers' view of the suicide prevention process.

The top-down culture of suicide prevention accounts for other non-medical risk factors through the training of other stakeholders – such as minority groups and indigenous populations, frontline workers, community nurses, welfare officers, police and teachers – in the medical model of suicide prevention.

In the face of record suicide numbers in New Zealand for four years in a row the government's reaction has been to allocate additional funds to the mental health service for "more of the same" prevention that has already failed to prevent suicide.

It seems that the mental illness based suicide prevention strategy is a set of conflicts and irony. New Zealand media's muted performance over the record suicide numbers blames a failing mental health service whilst at the same time referring members of the public to mental health services if they feel suicidal. Another irony is that medical modellists continue to claim that a suicide is a preventable and unnecessary death – so the question is, why do they insist on a methodology that has failed to prevent suicide consistently (Hjelmeland et al., 2018)?

Suicide numbers vs suicide rates

The population of Canterbury (South Island of New Zealand) decreased following the 2010 and 2011 earthquakes and many aftershocks through some families migrating out of the region. No suicides were reported during this period but the "experts" warned that suicide numbers would go up and encouraged the public to look for signs of mental illness. While the "experts" and the government of New Zealand sat on their hands and waited for the symptoms and signs to manifest, suicides in Canterbury rose up to make it the region with the highest suicide rate in New Zealand (Shahtahmasebi, 2017). In spite of the Canterbury experience and the fact that suicide numbers in New Zealand rose to a record for four years in a row there has been a lack of public discussion. Of course, the muted response to record high suicides could be public apathy and fatigue

(Shahtahmasebi, 2018a, 2018b). Anecdotally, the record high numbers have been played down by pointing out the increase in New Zealand's population size. Once suicide numbers are presented as a proportion of the population then the suicide rate has not really gone up by much. In other words, although suicide numbers have gone up so has the population, and therefore it is claimed that proportionally relative to previous years an increase in suicide mortality is expected. The government has taken comfort in this argument in order to persevere with its "more of the same" suicide prevention strategy by investing even more in the mental health service. We will deal with this unwise assumption very briefly.

Apart from the record numbers of suicides, the main issue of concern is the fact that the suicide rate has been trending upwards for a number of years, especially over the last four years. In general, it is expected that the frequency of an event increases as population size increases, but does not change much as a proportion of the population. Under this assumption, the frequency of an outcome, e.g. the number of deaths due to heart disease or suicide, is presented as a proportion of the population in order to compare annual morbidity and mortality with previous years. These statistics are useful for resource planning but they are a major distraction when addressing the reasons for the increase in mortality or morbidity. We have no idea how many of the suicides, if any, were actually from the new growth in population (e.g. newly settled immigrants, new births, returnee expatriates). Furthermore, for decades there has been a massive drive to reduce morbidity and mortality numbers, and therefore we would expect mortality (especially as a proportion of the population) to go down over time. But morbidity and mortality, e.g. due to heart disease, cancer and suicide, have been trending upwards; heart disease, cancer and suicide are still the top causes of death globally (CDC, 2017).

Substantively, this argument is unjustified, at least in the suicide context. There was a time when there were either no or a very small but constant number of adolescent suicides from one year to another despite increases in population size (e.g. see Figure 5). Furthermore, as demonstrated in Figures 1–5, suicide rates/numbers follow a cyclic pattern, i.e. a period of upturn followed by a downturn despite an increasing population size. This suggests that suicide as a time series has its own memory and, at least in part, is independent of population size. Firstly, New Zealand's suicide rates, in particular, youth suicide, are the highest of the OECD and EU countries (BBC, 2017). Secondly, according to Statistics New Zealand, the population has been increasing, e.g. from 3,732,000 in 1996 to an estimated 4,885,300 in June 2018 (Statistics New Zealand, 2019), but