



Older People and Suicide

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Executive Summary

Each year across the world, 1 million people take their own lives; in the United Kingdom about 5000 people, many of them over 65 years. In fact, older people are the most successful age group for suicide with about one in four attempts resulting in death. Here in the West Midlands nearly 700 older people have died by suicide in the last ten years. Around two thirds of these suffered from depression and with timely detection and intervention their deaths could have been prevented. Evidence from a growing body of research, shows that suicide in older people is reasonably well understood; it results from complex social, psychological, biological and spiritual processes. What still remains lacking in tackling this devastating problem is concerted and sustained action by each and every one of us to value, support and include older people in all aspects of life. Working together; partners, friends, health and social services, emergency services, business, voluntary and faith groups, and the media can make a significant impact on the problem of suicide in older people. Action is required at both the individual and at the societal level to improve the physical, psychological and social health of older people. We need to reduce the effects of unwanted social isolation and loneliness by empowering and enabling older people to participate fully in everyday life. Steps need to be taken to recognise and respond to the continuing social devaluation and exclusion of older people.

Paper Objective

To provide an evidence based discussion that will assist health and social care providers and policy makers to engage in primary secondary and tertiary interventions in response to at-risk suicidal behaviour in the older person. A secondary aim is to promote a wider awareness of the problem of suicide in older people amongst community opinion formers and the media.

The Papers Focus

The focus of this paper is on older people who come into contact with health and social care providers, voluntary and community organisations (including faith based groups) in a variety of settings including hospitals, health centres, clinics, home health care, nursing and rest homes, and church groups.

Outcomes Addressed

Suicide and suicide prevention in older people.

Methodology

The methods used to collect and select the evidence for this paper were:

1. A search of Electronic Databases; CINAHL, MEDLINE, Psych INFO, the Cochrane Database, and Bandolier (Electronic Journal and Database).
2. A search of E-bry – A full text on-line library of text-books.
3. A hand search of Staffordshire University library textbooks and printed journals.

Inclusion/Exclusion Criteria

Only papers written in English were considered, and only papers that appeared to reach at least level 5 according to the levels of evidence criteria (set out below) were considered.

Keywords used in electronic search

MEDLINE: "Suicide"[MeSH] AND Elderly OR Older OR Aged OR Geriatric OR Psycho-geriatric AND ("Suicide/prevention and control "[MAJR] OR "Suicide/statistics and numerical data"[MAJR] OR "Suicide/trends"[MAJR])

Results: **3,323**

CINAHL: Suicides AND Suicide Attempts AND Older People

Results: **70**

Cochrane Database of Systematic Reviews: Suicide AND Older OR Elderly OR Geriatric

Results: **0**

PsychINFO: suicide (limited to gerontology); prevention (limited age); suicide+risk populations; suicide+meta-analysis; suicide+meta-analysis+elderly

Results **36**

Method used to assess the evidence found

The abstracts of the papers where available were rated according to the standard levels of evidence table¹

Strength of evidence

1. Strong evidence from at least one systematic review of multiple well-designed randomised controlled trials.
2. Strong evidence from at least one properly designed randomised controlled trial of appropriate size.
3. Evidence from well-designed trials without randomisation, single group pre-post, cohort, time series or matched case-control studies.
4. Evidence from well-designed non-experimental studies from more than one centre or research group.
5. Opinions of respected authorities, based on clinical evidence, descriptive studies or reports of expert committees.

As stated above this paper uses only evidence rated at level 5 or above according to the above levels of evidence table.

Limitations of the Paper

This paper can be described as a 'traditional' narrative literature review and discussion. Although a basic protocol was developed to guide the work, the paper represents the perspective of the author who has gathered and interpreted the literature that relates to suicide in older people. It cannot be considered as being a systematic, rigorous and exhaustive search of all of the literature on this important topic. There may be relevant studies which have not been included leading to possible selection bias and difficulty in accurate interpretation of the evidence. The studies found in compiling this discussion paper were not quality assessed in terms of research methodology which means that some methodologically unsound studies may have been included.

Introduction

The World Health Organisation report that **840,000** people die by suicide each year.² Because different countries investigate deaths and classify suicide in a variety of different ways the actual true figure for deaths by suicide is likely to be much higher. In the United Kingdom suicide accounts for approximately 5,000 deaths each year³ which is more than all deaths that result from road traffic accidents. It is about the same as the number of people who die as a result of M.R.S.A infection in England and Wales each year. Across Western Europe suicide rates increase with age and elderly males have the highest rate of all.⁴ Globally suicide in people of all ages accounts for more deaths than are caused by all of the worlds armed conflicts.⁵

Many European countries have put in place strategies to prevent suicide and England is no exception; The National Suicide Prevention Strategy for England ⁶ in supporting the *Saving Lives: Our Healthier Nation* ⁷ target to reduce the death rate from suicide by at least 20% by 2010 was introduced in 2002. Whilst considerable progress has been made overall, suicide in older people remains a cause for concern.

The National Suicide Prevention Strategy does not appear to *directly* address death by suicide among older people; although it does state as a goal to 'reduce risk in key high risk groups'. Given that older people constitute the fastest growing population group a lack of positive action in this area now could have serious implications for the future. This can be contrasted with the situation in the United States where the *National Strategy for Suicide Prevention: Goals and Objectives for Action* (Office of the Surgeon General, 1999) has the reduction of suicide in older adults as a fundamental objective.⁸

To provide an illustration of the magnitude of the problem of suicide in older people consider the following facts; in the general population the ratio of suicide attempts to completed suicides⁹ is approximately 15:1, in older people this ratio is approximately 4:1. In young people this rate may be as high as 200:1. Older people are extremely successful at killing themselves; The World Health Organisation: European Union multi-centre study on para-suicide¹⁰ which collected data from 13 member states between 1989-1993 provided the following estimates for the 65 and over age group:

- a mean suicide rate of **29.3** per **100,000**
- a mean para-suicide rate of **61.4** per **100,000**
- a para-suicide/suicide ratio **2.09**

Key Point 1: People over the age of 65 are more successful than any other age group at taking their own lives. This simple fact often goes unrecognised.

Hawton¹¹ suggests that acts of deliberate self harm or actual suicide attempts are the strongest predictors of eventual suicide in the elderly. There exists a fairly clear consensus in the research on the association between completed suicide in older people and past attempts. Somewhere between 19%¹² and 53%¹³ of older people who completed suicide had made prior attempts. Beautrias¹⁴ estimates an older person who completes suicide is 36 times more likely than matched controls to have made one or more previous attempts.

Key Point 2: The strongest predictor of eventual suicide for an older person is a past attempt/s. All suicidal behaviour in an older person must be taken seriously.

The West Midlands Picture

Having overviewed the background demographics of suicide and suicide in the older person the paper will now focus briefly on the local picture here in the West Midlands region of England. Below is the ten year trend data for the three Strategic Health Authority areas; Birmingham and the Black Country, Shropshire and Staffordshire and West Midlands South. Where in a given year there were less than five deaths for a particular sex/age group the data has been withheld in order to protect confidentiality. The data in all three tables has been obtained from the West Midlands Public Health Observatory (<http://www.wmpho.org.uk/observatory/>).

1. Birmingham and the Black Country Strategic Health Authority

Year	Male			Female			M and F Total
	60-69	70-79	80+	60-69	70-79	80+	
1995	7	5	6	Below 5	Below 5	5	30
1996	4	8	Below 5	7	5	5	Suppressed
1997	10	5	Below 5	Below 5	Below 5	Below 5	27
1998	8	5	Below 5	Below 5	Below 5	0	19
1999	9	6	5	6	6	4	36
2000	5	6	7	Below 5	Below 5	Below 5	24
2001	11	8	Below 5	Below 5	0	Below 5	27
2002	6	Less than 5	Below 5	5	Below 5	Below 5	18
2003	8	6	Below 5	Below 5	0	0	20
2004	6	6	Below 5	Below 5	Below 5	0	18
Total	74	Supressed	36	36	25	22	Suppressed

If one assumes that 'Below 5' equals 1 death, then the total for Birmingham and the Black Country Strategic Health Authority area is **249** deaths by suicide for people over the age of 60 between 1995 and 2004.

2. Shropshire and Staffordshire Strategic Health Authority

Year	Male			Female			M and F Total
	60-69	70-79	80+	60-69	70-79	80+	
1995	7	7	0	Below 5	Below 5	Below 5	19
1996	9	Below 5	Below 5	0	0	Below 5	16
1997	5	Below 5	Below 5	0	Below 5	0	10
1998	Below 5	Below 5	Below 5	Below 5	Below 5	0	16
1999	Below 5	Below 5	5	Below 5	Below 5	Below 5	19
2000	6	5	7	0	Below 5	Below 5	23
2001	5	8	Below 5	6	Below 5	Below 5	29
2002	10	Below 5	Below 5	Below 5	Below 5	Below 5	19
2003	8	7	Below 5	Below 5	Below 5	Below 5	24
2004	0	6	6	Below 5	Below 5	Below 5	18
Total	56	49	32	20	23	13	193

3. West Midlands South Strategic Health Authority

Year	Male			Female			M and F Total
	60-69	70-79	80+	60-69	70-79	80+	
1995	12	10	Below 5	Below 5	Below 5	Below 5	31
1996	7	7	Below 5	Below 5	Below 5	Below 5	27
1997	12	9	Below 5	Below 5	Below 5	Below 5	27
1998	8	Below 5	Below 5	Below 5	Below 5	Below 5	21
1999	16	9	8	Below 5	5	Below 5	42
2000	8	7	5	Below 5	0	Below 5	23
2001	9	Below 5	6	Below 5	Below 5	Below 5	25
2002	8	5	Below 5	Below 5	Below 5	Below 5	22
2003	Below 5	8	5	0	Below 5	Below 5	20
2004	Below 5	Below 5	Below 5	Below 5	Below 5	0	16
Total	88	64	39	25	20	18	254

In summary the total number of deaths by suicide in the West Midlands for the **60+** age group from 1995 to 2004 is between **696 and 699 deaths**. This comprises at least **494 men** and **202 women**. The research literature reports that about two thirds of those who kill themselves are depressed, so at least **450** of these deaths were potentially preventable with timely detection and intervention for depression. It should also be noted the suicide may have profound, health, psychological and social effects on the person's family, friends, social network and community.

Having briefly described the 'picture' in the West Midlands the paper will now take as a starting point the idea that any suicide in an older person begins with that person (however briefly) contemplating taking their own life. This process can be referred to as suicidal ideation.

Older people and suicidal ideation

Prior to any intentional suicidal act an elderly person will have contemplated (even if only briefly) on the possibility of taking their own life, this is referred to as suicidal ideation.

There have been a number of studies examining suicidal ideation amongst older people;

Table 1 - Suicidal Ideation and the Older Person: Adapted from Yeates, C and Duberstein, P (2005). *Suicide in Older Adults: determinants of risk and opportunities for prevention*. In Hawton, K. (2005) *Prevention and Treatment of Suicidal Behaviour: From Science to Practice*. Oxford: Oxford University Press.

Study	Country	Sample size and Age	Prevalence
Forsell ¹⁵ <i>et al</i> (1997)	Sweden	969 / 75 and over	10.1% Fleeting ideation 2.5% Frequent ideation in past two weeks
Crosby ¹⁶ <i>et al</i> (1999)	U.S.A (telephone survey)	760/ 65 and over	1% Suicidal ideation in last year
Rao ¹⁷ <i>et al</i> (1997)	United Kingdom	125/ 81 and over	7% Suicidal Ideation 20% Death ideation in last two years
Linden and Barnow ¹⁸ (1997)	Germany	516/ 70 and over	1% Suicidal ideation 21.1% Death Ideation in last week
Jorm ¹⁹ <i>et al</i> (1995)	Australia	923/ 70 and over	Suicidal ideation/ Death ideation 2.3 % in last two weeks
Skoog ²⁰ <i>et al</i> (1996)	Sweden	345/ 85 and over	Suicidal ideation/ Death ideation in past month 15.9%
Paykel ²¹ <i>et al</i> (1974)	U.S.A	156/ 60 and over	Suicidal ideation/ Death ideation in last year 9.0%
Scocco ²² <i>et al</i>	Italy	611/ 65 and over	Suicidal ideation/ Death ideation in past month 6.5%
Yip ²³ <i>et al</i> (2003)	Hong Kong	917/ 60 and over	Suicidal ideation/ Death ideation/attempted across lifetime 5.5%

Studies examining suicidal ideation in the older person are problematic; they can only be based on self reports by older people themselves and the various studies use differing *definitions* and *time frames*. Some of the studies reported above refer to specific thoughts of suicide whilst others refer to a more generalised 'thoughts of death,' and the time frames of the reports vary between the past week and the past two years. So while estimates of suicidal ideation among older people are problematic it is generally clear that older adults are less likely to agree that they have such ideation than younger people.^{24 25} It is also interesting to note that the communication of suicidal ideation in those aged 85 years or older is more likely than in 'younger' older people. In the study by Skoog, reported in the table above **16%** of those aged 65 and over had either active thoughts of taking their own life or wished for death or judged life not to be worth living. Suicidal ideation is not the only clue to suggest that an older person is contemplating suicide, the research literature suggests a number of other warning signs:

Key Point 3: One must not assume that because an older person has *not* expressed any suicidal ideation that this means they are not thinking about taking their own life. It is frequently the case that the suicide of an older person can 'come out of the blue.'

Warning signs other than suicidal ideation

Before examining the research on other warning signs a brief word about the ratio of suicides to suicide attempts. In terms of attempted suicides it is clear that younger people make far more suicide attempts than older people.²⁶ In one U.S study ²⁷ only 1.1% of the older people studied reported that they had made a suicidal attempt.

Crosby²⁸ *et al* suggests that the ratio of attempted to completed suicides in the general population ranges from 8:1 to 36:1. Amongst older people McKintosh ²⁹*et al* suggests that there are four or less attempts for each completed suicide.

Key Point 4: An attempt at suicide by an older person is more likely (if repeated) to result in a future death by suicide than is the case with younger people. Health and social care professionals, spouses, carers and friends should take any suicide attempt in an older person very seriously.

Having made this brief but important point we now turn back to warning signs other than suicidal ideation. In terms of wider indicators Osgood³⁰ identifies four different types of 'warning signs' that may point to possible suicidal ideation and intent in the older person, these are: verbal, behavioural, situational and syndromatic clues; **Verbal** clues indicating suicidal ideation can be both direct and indirect. A direct behavioural clue would be the presence of 'end centred talk' including the direct expression of a desire to take one's own life. Indirect verbal clues would include such things as statements about a future event that they will not be around to see. As previously stated the most direct **behavioural** clue is a previous suicide attempt and it is clear that older people make very few suicide attempts in relation to completed suicides. This means that a failed suicide attempt should be taken as a serious indicator of risk for a further attempt in the future. There are a number of indirect behavioural clues reported in the research, including:

- **the hoarding of medication**
- **making or changing a will**
- **behaviours indicating a determination to put ones affairs in order**
- **sudden interest in giving things away (including money)**

- **suddenly attending or re-establishing contact with the church or local clergy**
- **a so called 'failure to thrive'**
- **self neglect and/or lack of interest in household or social tasks**
- **visiting a General Practitioner with vague non-specific symptoms**

An additional behavioural clue of particular relevance to older people living in rural settings (or who have a military or shooting background) is the **purchase of a gun** or the **storage of a gun in a loaded state**.

Key Point 5: Front line staff and carers should be alert to the possibility of indirect behavioural clues. No single clue on its own is indicative of suicidal intent but any emerging *pattern* of such clues should be explored further. Older people who are contemplating suicide may well visit or re-establish contact with the clergy – this could be an interesting area for the development of suicide prevention in older people.

Situational factors include all those events occurring in the older person's life that might trigger depression. As we shall see later the presence of depression is highly significant as a major precursor for suicide in the older person. Many of these situational factors include sudden change of one kind or another; retirement, moving home, the death of a spouse, child or close friend and the diagnosis of a serious illness. **Syndromatic** factors refer to the presence of a cluster of symptoms strongly related to suicide, according to Holkup³¹ these include:

- **Depression accompanied by anxiety**
- **Tension, agitation, guilt and dependency**
- **Rigidity, impulsiveness and isolation**

- **Changes in sleep and eating habits**
- **Sudden recovery from deep depression**

Key Point 6: Many front line staff may misread situational and syndromatic clues as being part of '*what it is to be old*' or as part of the everyday 'wear and tear of life'. When such clues are apparent there is very little to be lost by further exploration of the significance of such clues for the older person themselves. Old age is not a 'disease' and the presence of symptoms such as those listed above requires investigation and management.

This paper will come back to the central importance of undiagnosed or untreated or poorly managed depression as a major factor in older people and suicide a little later but first the paper will address the influence of the media on suicide. If an older person is in a situation where they believe that their life is no longer worth living, then poor quality 'media reporting' of suicides may well be a 'trigger' factor that can have devastating consequences.

Older people, suicide and media reporting

The media have a powerful influence in educating the general population about suicide and its prevention. The way that the media report a story about suicide can influence the public's knowledge about who is at risk; the causes of suicide; warning signs and behaviours and treatment options. Television, radio, the internet and newspapers are each ideally placed to influence the wider public's perception about suicide in the older person and about its prevention.

Suicides are obviously very 'newsworthy' and with responsible reporting, stories about individuals who attempt suicide can be informative and helpful to the wider public. It is often the case however that suicide's are reported in *sensational* and *over-simplistic* terms. In instances such as these, the reports have the potential capacity to do harm. The term '*suicide contagion*'^{32 33} is used to describe the effects of irresponsible reporting of suicide in the media. Such reporting can lead to what a lay person might term a 'copycat suicide.'

Between 1984 and 1987 there was a spate of newspaper reports in Vienna Austria about people attempting suicide by throwing themselves beneath trains on the underground railway system. In 1987 an Austrian campaign was launched to change the way that such stories were reported in the press. The campaign included guidelines on responsible reporting. During the first six months of the campaign underground train suicides and attempted suicides were reduced by more than 80%. In addition the overall suicide rate in Vienna dropped as well.^{34 35}

Research studies that relate to media reporting of suicide show that suicide rates increase when:

- **the number of stories about individual acts of suicide increases.**^{36 37}
- **a particular significant suicide death is reported in detail, or in many different stories**^{38 39}
- **a suicide story is placed on the front page of the newspaper or magazine or is the lead story in a news broadcast.**^{40 41}
- **headlines relating to a suicide are presented dramatically.**^{42 43}

In 1993 The **MediaWise** Trust (<http://www.mediawise.org.uk>) was established as an independent charity to explore inaccurate reporting in the media and to promote among other things, ethical reporting. One of MediaWise's ongoing

projects is on suicide reporting. Guidelines issued by MediaWise – “*The Media and Suicide: Guidance for Journalists from Journalists*” identifies the principles of ‘sensitive reporting’ of suicide which include:

- **considering the feelings of relatives**
- **avoiding detail about suicide method**
- **understanding that suicide is a complex issue**
- **providing information in reports about sources of help**

It is beyond the scope of this paper to examine the media portrayal of suicide in detail but interested readers should go to; <http://www.mediawise.org.uk> This site provides an excellent (and evidence based) resource for those readers interested in exploring this issue further. There is clear scope for a local or regional initiative relating specifically to suicide in older people. For example, many older people, carers and friends listen to ‘local radio’ during the day providing an ideal opportunity to responsibly and sensitively, highlight the problem and advance positive prevention measures. Evidence indicates that where the media portray an individual suicide as a noble act or where the suicide is romanticized and the person taking their own life idealised, then this may encourage others to identify with the victim.⁴⁴ There is some evidence that where the media report the method of suicide in detail then this can lead to ‘at risk’ individuals imitating it ⁴⁵ This imitation may be further intensified if detailed descriptions or photographs of the location are also given.⁴⁶

Key Point 7: In reporting suicide in older people the media should report ethically and a range of evidence based guidelines exist that can assist in this process;

- [Suicide and the Media: Recommendations on Suicide Reporting for Media Professionals](#)

An evidence based guide produced by the University of Hong Kong. The principles are relevant to the U.K context. http://csrp.hku.hk/files/70_1894_345.pdf

- [Suicidal Behaviour and the Media: Findings from a systematic review of the research literature](#)

A summary of a systematic review carried out by Kathryn Williams and Keith Hawton, at the Centre for Suicide Research, Oxford University

http://www.mediawise.org.uk/display_page.php?id=373

- [Preventing Suicide - A Resource for Media Professionals](#)

A resource guide produced by the Department of Mental Health at the World Health Organization in 2000.

http://www.who.int/mental_health/media/en/426.pdf

- [Suicide and the Media - The reporting and portrayal of suicide in the media](#)

This resource guide was published in New Zealand as part of its Youth Suicide Prevention Strategy in 1999.

<http://www.moh.govt.nz/moh.nsf>

Use of language by the media

The language used by the media may have a considerable effect on the perceptions of those hearing it. For example referring to a "rise" in suicide rates as an "epidemic" may be problematic. Using the term "epidemic" may give the misleading impression of a sudden and dramatic shift in suicide rates. In addition to those factors identified by MediaWise (above) the research indicates that the following additional points may be useful in the reporting of suicide by the media:

- **avoid referring to suicide in the headline of a story – it is more sensitively reported in the body of the story.**
- **in the body of the story it may be better to refer to the deceased as "having died by suicide," rather than as "a suicide," or having "attempted suicide." The last two descriptions reduce the person to the mode of death, or might connote 'wrong' behaviour.**
- **using the words "suicide deaths" and "non-fatal attempts" is preferable to using terms such as "successful", "unsuccessful", or "failed".**

In addition when reporting on suicide the media portrayal could also emphasis positive messages such as;

- **overall positive trends in suicide rates**
- **stories about treatment advances for older people – particularly in the treatment of depression and other affective disorders**

- **stories of older people who overcame their depression without attempting suicide**
- **'myth busting' facts about suicide and older people**
- **educational articles and news items about the warning signs of suicide**
- **how communities and individuals can be involved in preventing suicide.**

There is evidence that 'celebrity' deaths are more likely than 'non-celebrity' deaths to produce imitation.⁴⁷ This is possibly the result of wider reporting but may also be a result of the emphasis sometimes given to the celebrities 'glamorous' lifestyle rather than on their personal problems that led to the suicide. The research on 'suicide pacts' is also worthy of note. The media often portray these rare but highly newsworthy acts, as acts of 'loving' individuals who could not bear to be parted, whereas research evidence suggests that many suicide pacts involve one individual who is highly manipulative and coercive and another who is extremely dependent.⁴⁸

Key Point 8: How suicide in older people is reported by the media can have a real effect on the incidence of suicide in older people. It is possible to report accurately and ethically whilst maintaining press freedom.

Older people, suicide, devaluation and stereotyping

One reason why the high suicide rates in older persons is not a major issue of public or policy concern relates to the consequences of social devaluation and social exclusion. Older people are often viewed and portrayed as of being of 'lesser worth' than others. Once older people are viewed as being of less worth, they are then at risk of being treated in devaluing ways that reflect such a perception. Once devalued, older people are highly likely to be rejected, separated and excluded. Conversely many of the 'good things in life' which are enjoyed by people enjoying high levels of perceived social worth are likely to be denied or even taken away from a devalued older person, including things such as supportive relationships, respect, autonomy, and participation in wider social and civic life.⁴⁹ These are precisely the kinds of experience that may lead to an older people becoming depressed, despairing and socially isolated, all factors that are consistently correlated with suicide.

One way of thinking about social devaluation is to consider those things which in modern societies are highly valued by the majority of people; wealth and material prosperity; being employed; being healthy and beautiful; being competent; independent and productive; and of course being young! From here it is quite easy to hypothesize that where an individual or group does not (or at least is perceived as not) having these characteristics in abundance then they are likely to experience social devaluation. In terms of older people at risk of suicide, a number of consequences are likely to follow:⁵⁰

- **they may become more impaired in body – for example as a consequence of poverty, poor nutrition, unsafe living conditions, and poorer health care**
- **they may become more impaired in functioning – for example un corrected sensory loss as a result of lack of help and support.**

- they may be perceived as being 'second class' citizens
- they may experience rejection by others which often manifests' itself in the segregation and congregation of older people into care homes, rest homes and retirement communities.
- their access to valued roles and experiences may be considerably diminished. This may result in the older people being almost totally defined by age and impairment.
- they may be perceived by others as 'a burden,' or 'an object of pity,' or 'sick,' or as 'just waiting to die.'
- they may experience a loss of control over their own lives – a loss of autonomy
- they may experience social and relationship discontinuities, people (especially health and social care professionals) come into and go out of their lives with inevitable frequency. Natural freely given relationships are often replaced by paid professional ones.
- other people come to expect very little of them – the older persons life can easily be 'wasted' - the days, weeks and months go by with little in the way of new experience and challenge.

This is admittedly a very 'bleak' picture but it is important to consider the effects of such experiences on an older person. It may be the case that the person comes to view themselves as a burden and source of anguish to others, as insecure, and as rejected. It is not difficult to see how such experiences can lead to the elderly becoming isolated, depressed and *suicidal*.

Key Point 9: Suicide in older people is a complex problem which requires not just *proximal* interventions close to the individual, but one which also requires *distal* interventions in the form of combating stigma, community building and positive social policy initiatives that build civic engagement.

It is beyond the scope of this paper to provide a strategy for combating the stigma and devaluation experienced by older people, but it is reasonable to hypothesize that it is a wider contributing factor in bringing an older person to the point where they might contemplate suicide as an escape from an intolerable situation. Having explored some aspects of social devaluation and stereotyping of older people this paper will now turn to the mental health of older people, and how the presence of mental illness is correlated with suicide in older people.

Mental Illness and Mental Disorder

The presence of psychiatric symptoms is strongly correlated to completed suicides in older people. Psychological autopsy studies report that between **71%** and **95%** of those over 65 completing suicide had a diagnosable mental disorder at time of death. The aim of a psychological autopsy study is to gather information *post mortem* about the circumstances and background of an individual's death in order to understand the reasons for the suicide.⁵¹ They are extremely time consuming and expensive to carry out on a large scale but a number of such studies have been carried out which included completed suicides among the elderly:

Table 2 – Axis 1 diagnosis made by psychological autopsy in studies of later life suicide – adapted from Yeates C and Duberstein P (2005) Suicide in Older Adults: determinants of risk and opportunities for prevention. In Hawton K (2005) Prevention and Treatment of Suicidal Behaviour: From Science to Practice. Oxford: Oxford University Press.

Study	Country	Sample	Age	Major Depression	Other Mood Disorders	Alcohol Use Disorder	Other Drug use	Non Affective Psychosis	No Diagnosis
Barraclough 1971 ⁵²	United Kingdom	30	65+	87%	3%	0%	13%		
Clark 1991 ⁵³	United States	54	65+	54%	11%	19%	0%	24%	
Conwell et al 1991 ⁵⁴	United States	18	50+	67%	17%	42%	0%	11%	
Carney et al 1994 ⁵⁵	United States	49	60+	54%	22%		14%		
Henriksson et al 1995 ⁵⁶	Finland	43	60+	44%	21%	25%	5%	12%	9%
Conwell et al 1996 ⁵⁷	United States	14	75-92	57%	21%	27%	7%	0%	
Beautrais 2002 ⁵⁸	New Zealand	31	55+	86%	14%		9%		
Conwell et al 2001 ⁵⁹	United States	73	50+	71%	18%	7%	12%		
Harwood et al 2001 ⁶⁰	United Kingdom	100	60+	63%	5%	5%	4%	23%	
Waern 2002 ⁶¹	Sweden	85	65+	46%	36%	27%	8%	5%	

When aggregated together these 11 studies provide the following overall figures:

Sample Total	Age Range	Mean for Major Depression	Mean for other Mood Disorder	Mean for Alcohol, Disorder	Mean for other Drug use	Mean for Non Affective Psychoses
533	50-92	61.5%	16.8%	21.6%	6.8%	11.6%

From these studies it can be seen that major depression and other mood disorders are present in a substantial number of older people who take their own lives. Conwell⁶² points out that the depression typically experienced by elderly people is of moderate severity and is often associated with co-morbid substance use. Such conditions are eminently treatable; depression in the elderly can be successfully treated with both antidepressant drugs and with Cognitive Behavioural Therapy (CBT).

Research evidence clearly indicates that suicide rates across the world peak for both men and women in the over 75 age group.⁶³ It is estimated that worldwide there are more than 600 million people aged 60 and over and that the elderly constitute the fastest growing age group. By the year 2020 it is estimated that the world's elderly population (60+) will have grown to more than 1 billion⁶⁴ Should this predicted population growth in the 60+ age group actually occur then such an increase will lead to far greater numbers of older people taking their own lives.

The steady rate of increase in suicide rate with increasing age may indicate age related biological and psychological processes involved in causation, but such a hypothesis could not account for the wide variation in suicide rates across different cultures. The United Kingdom and European neighbours France, provide a dramatic example – The suicide rates for older people in France are *double* the rate found in the United Kingdom⁶⁵

Dementia and suicide in older people

Three recent studies that included controls ^{66 67 68} found no significant differences between suicides and controls in the proportions with Dementia.

Key Point 10: It may be the case that Dementia is a risk factor for suicide in older people early in the course of the disease, when insight and the ability to plan and act are still present. Later in the course of Dementia the presence of the disease may be protective insofar as insight may be lost, the ability to plan suicide and act on the plan may be severely diminished, and there may be increased levels of supervision from carers and relatives.

Symptoms and behaviours related to suicide in older people

Also of note are two prospective non-clinical cohort studies that investigated risk factors for completed suicide – rather than focussing on diagnosis these two studies looked at symptoms and behaviours. In the first of the two studies ⁶⁹ researchers followed approximately 12,000 retirement community residents over a period of 5 years. During this time 19 of the residents had died by suicide. The researchers found that residents with the greatest number and intensity of depressive symptoms were 23 times more likely to take own life than asymptomatic subjects. It was also found that drinking 3 or more alcoholic beverages and sleeping 9 hours or more per night were independently associated with significantly increased risk. (OR = 3.5 and OR = 4.6 respectively).

In the second prospective study⁷⁰ a total of 14,500 elderly subjects were followed over a ten year period. During this time 21 elderly people died by suicide. The study reported that the following factors were found to be highly significant:

- **depressive symptoms**
- **poorer perceived health status**
- **poorer perceived sleep quality**
- **absence of relative or friend in whom to confide**

The finding in this study of poor sleep quality is supported in the previously mentioned work of Barraclough⁷¹ in that study, which was a descriptive study of a group of 30 elderly people, – 87% had a diagnosable affective disorder and 90% (23 subjects) of those with a diagnosable affective disorder had insomnia.

Suicide in older people – three important and interrelated factors

It is clear that in older adults there is increased lethality of self-destructive acts.⁷²

Such increased lethality in elderly people dying by suicide may be the result of three interrelated factors⁷³:

- **a generally higher burden of physical illness and frailty than found in younger people. This may result in an older person not being able to physically withstand severe physical trauma in a way that young person might**

- far greater likelihood of living alone than most other age groups. This results in a reduced likelihood of suicidal ideation being recognised by others and less likelihood of being interrupted or discovered when carrying out the suicidal act.

and;

- greater planning and determination to die than that exhibited by other age groups. There is evidence to suggest that older people who take their own lives are less likely to act impulsively (the typical pattern found in younger people) and are more likely to use lethal means (hanging, shooting, and jumping).

Because of such factors it is crucially important to detect those older people at risk.

Key Point 11: Given the research evidence that the presence of increased physical frailty, living alone and the likelihood of greater planning and the use of lethal means results in the greater likelihood of an older person dying as a result of suicide then the following actions may be protective:

- physical health promotion initiatives for older people, including regular health screening and check-ups.
- strategies that promote regular contact and engagement with older people
- greater vigilance for suicidal ideation and greater significance given to 'end centred talk.'

Suicide in older people and personality

There appear to be relatively few studies examining possible significant personality factors associated with suicide in the elderly. In one study⁷⁴ which looked at a group of elderly people aged 60 years and over, a total of **16%** of those studied had a diagnosable personality disorder. In a Finnish study⁷⁵ **14%** of the study population were found to have an axis II diagnosis.

A number of studies link suicide with *Personality Traits* as long ago as 1953 in a research paper by Batchelor and Napier⁷⁶ older people who took their own lives were characterised as being shy, timid, seclusive, hypo-chondriacal and hostile, and as having a 'rigid independent' style. This tendency for elderly people who take their own lives to be seclusive, hostile and independent has also been found in a number of more recent studies.^{77 78}

A highly significant study that examined personality traits and elderly suicide is that conducted by Duberstein and colleagues.⁷⁹ In this study it is suggested that elderly people (in this particular study those over 50 years) who took their own lives were significantly more likely to have high neuroticism scores, and low openness to experience (OTE) scores on the NEO Personality Inventory⁸⁰ when compared to a 'normal' community sample of adults. The NEO Personality Inventory characterises low openness to experience as exhibiting muted, affective and hedonic responsiveness; a constricted range of interests; and comfort with the familiar.

Further support for such a finding can be found in the work of Harwood et al⁸¹ whose work found that 'anankastic' and anxious personality traits distinguished elderly suicides from controls. Anankastic traits are similar to those which characterise low openness to experience (OTE). Duberstein *et al*⁸²

Duberstein (1995) suggests that such traits place elders at increased risk because they are less socially and psychologically equipped to manage the challenges of Ageing. It is possible to hypothesise that if a person is shy, secretive, independent and resistive to change then as multiple challenges of growing older begin to impact on their everyday experience they may come to feel an increasing sense of a loss of control over their lives. It also seems likely that such individuals would be likely to have smaller social circles of support (preferring isolation to company) and because they are more likely to be on their own and shun company are less likely to express direct suicidal ideation to others. Overall this would result in such people being far more likely to escape detection and lifesaving interventions.⁸³

Key Point 12 : Ken Willoghby is 81 years old and lives alone. He has no friends and his wife of 55 years Gladys died two years ago. Ken tends to neglect himself eating poorly and shunning offers of help from neighbours and health and social services. Social workers and nurses who visit rarely get past the front door and Ken shouts at them to leave him alone and go away. Sometimes Ken will pretend to be out when people call. Following Gladys death Ken has become increasingly depressed, he does not like change and thinks the 'worlds gone mad.'

Ken has many of the traits described above and might be considered as a high risk for future suicide.

Suicide in older people and physical problems

It is commonly believed that poor physical health and the *presence of illness* may result in many older people taking their own lives. Evidence to support such beliefs appears to be somewhat limited. In a large scale study by Harris and Barraclough⁸⁴ sixty medical disorders and their treatments were examined in relation to suicide. Interestingly in this particular study the link with likely suicide appeared to be much more significant for middle aged people than for older people. This tendency for medical conditions to be associated with middle rather than old age was found to be most significant for the following:

- **HIV/AIDS**
- **Huntington's Disease**
- **Multiple Sclerosis**
- **Renal Disease**
- **Peptic Ulcer Disease**
- **Spinal Chord Injury**
- **Systematic Lupus Erythematosus.**

So for these medical conditions it would appear that should someone with such a condition live beyond middle-age they may well have adjusted and accepted the condition and in effect have 'learned to live with it.' However some medical conditions and diseases do appear to be correlated with increased risk of suicide in later life^{85 86}, including;

- **malignant neoplasm, with the exception of skin cancer⁸⁷**
- **seizure disorders**
- **some central nervous system conditions**
- **cardiopulmonary complications**
- **uro-genital diseases (in males)**

A key question here, is the likely pathway or trajectory to suicide. It seems likely that the underlying physical illness may result in **depression** which in turn leads to suicide, rather than the physical illness leading to suicide directly.

Key Point 13: Primary care workers should be particularly vigilant for the presence of depression in older patients who have physical conditions that have the potential to severely affect a person quality of life in terms of pain, discomfort and the ability to move around and lead a 'normal life.' The presence of depression in such patients requires immediate action.

Older people, terminal illness, and suicide.

A number of studies have examined suicidal thoughts and intent in people diagnosed as having a terminal illness. In one study by Brown et al ⁸⁸ in a population of 44 terminally ill patients – 10 (25%) were either 'suicidal' or 'wished for' early death all 10 of these people had diagnosable depression. It should be noted that wishing for an early death may not be the same as actively wishing to take one's own life.

In a study by Chochinov et al ⁸⁹ some 200 medical and surgical in-patients all of whom had been diagnosed with a terminal illness were questioned:

- 44% wished for an early death
- 8.5% reported suicidal thoughts.

This study also found that depression was strongly associated with those who wished for death and had suicidal thoughts.

Key Point 14: It would appear that in older people with terminal illness the presence of *depression* is again a significant factor in the likelihood of the older person wishing for death or of them being suicidal.

Physical illness, functional impairment and suicide in older people

A number of studies have examined associations between physical illness and functional impairment in completed suicides. The results are somewhat inconclusive. Conwell et al ⁹⁰ found that in people aged 60 years and over physical illness and functional impairment in completed suicides was significant in distinguishing suicides from controls. However, once the presence of mood disorders were controlled physical and functional factors were no longer significant. Again suggesting that mood disorders (particularly major depression) is a highly significant factor. But in a New Zealand study carried out by Beautrais ⁹¹ neither physical disorder nor the likelihood of a visit to the primary care provider in the past month was associated with increased risk of suicide.

A study by Waern et al ⁹² (2002) suggested that serious physical illness in any organ category was associated with increased risk for suicide in the older person – even after controlling for psychiatric disorder. One point of note is that this study also examined the question separately for men and women. It was found that the presence of a physical illness represented a significant risk factor only in older men. Clearly there is need for further research into the relationship between physical illness and suicide in older people. This is particularly true in relation to being or having a physical illness and being an older male.

Neurobiology, suicide, and older people

A number of recent studies have focussed on the neurobiological aspects of suicide. It should be noted that not all of these studies have focussed on elderly populations. They do however suggest promising areas for future research.

A research review conducted in 1997⁹³ reports a correlation between low cerebrospinal fluid (CSF) levels of primary serotonin metabolite, 5-hydroxyindoleacetic acid (5-HIAA) and aggressive, impulsive behaviour – suicide is frequently described in many cases as an ‘impulsive behaviour’ although this is sometimes not the case in elderly populations where careful planning may well be more typical. The same study also reports that in comparisons between post mortem examination of brain tissue from suicides and controls, those who have taken their own lives appear to have a pre-synaptic serotonergic deficit and post synaptic compensatory response. Mann et al (1999)⁹⁴ reports that low serotonin activity may lead to aggression and impulsive behaviour in depressed patients who show evidence of dysphoria, hoplessness, and suicidal ideation.

A number of studies have been published which seek out evidence of structural and functional abnormalities in ageing brains that may be associated with suicidal behaviour in elderly people.^{95 96} Some of these studies (the study by King et al included elderly subjects) have utilised neuropsychological testing techniques and have found evidence of problems in ‘executive functioning’ in those subjects who had attempted suicide compared with controls.

In another study⁹⁷ an analysis of brain tissue collected at post mortem from elderly people who had taken their own lives found significantly greater amounts of Alzheimers type Neuro-Fibrillary tangles and associated pathology than was found in a control group of samples. A further study by Ahearn et al⁹⁸ indicated that in a group of older people with a long history of suicide attempts more sub-cortical grey matter hyper-intensities on Magnetic Resonance Imaging (MRI) scans were found than in a comparison group of matched elderly depressives who did not have a history of suicide attempts.

There does appear to be emerging evidence from studies such as those described above that there may be some kind of relationship between suicide in older people and structural and/or functional differences in those parts of the brain that are involved in the regulation of mood, cognitive decision making and the initiation of behaviour. It is suggested that despite there being at present no reliable clinical indicators or markers of such structural and/or functional changes, more research is clearly indicated.⁹⁹

Key Point 15: There is a clear need for more research in the relationship between neurobiological changes and suicide. As technologies develop research in this area may lead to a much greater understanding of the neurochemistry of suicide and also lead to the development of new therapies.

Social factors and suicide in older people

In reviewing the available research on social factors and suicide in older people there does appear to be significant differences between older people, middle aged and young people. In the young and middle aged suicide is typically associated with interpersonal relationship, financial, legal, and work related problems. In older people suicide is more associated with physical illness and loss^{100 101 102} especially bereavement.¹⁰³ Yet more studies indicate that in older adults depression and co-morbid medical conditions are important factors.^{104 105 106}

¹⁰⁷A number of studies have used the technique of psychological autopsy to examine social factors that contributed to suicide, comparing elderly suicides with matched controls. Three of these studies^{108 109 110} Report that financial problems, relationship difficulties and family discord were more frequently found in those that took their own lives.

Several research studies have been identified that examined social isolation as a factor in older person's suicide. Conwell and Duberstein¹¹¹ suggest that social isolation is an important risk factor to be considered and that the presence of social support to an older person is a protective factor. In the study by Barraclough¹¹² which examined census data it was found that elderly people who attempted suicide were significantly more likely to have been living alone. In the psychological autopsy study by Conwell et al¹¹³ older suicides were found to be more likely to be living alone. Living alone does not necessarily equate to loneliness. It is possible to live alone but not be lonely and equally possible to live with others and experience loneliness. A study by Turvey¹¹⁴ found that having greater numbers of friends and relatives with whom one could confide was a protective factor for suicide.

In a psychological autopsy study by Miller ¹¹⁵ it was found that older males who lacked a confidant were more likely to attempt suicide than matched controls that had a confidant.

This idea that social contact is protective is further supported by Beautrais¹¹⁶ who reports that a lack of social interaction with others is a risk factor for elderly suicide.

Duberstein et al ¹¹⁷ is also supportive, finding that low levels of social interaction increased the likelihood of suicide in older people even when the results of the study were adjusted to control for mood and substance disorders. A more detailed examination of these issues and how they may be tackled is outlined in the Social Exclusion Unit report "A Sure Start to later life ending inequalities for older people", available (at the time of printing this document) on <http://www.socialexclusionunit.gov.uk/downloaddoc.asp?id=797>

With additional information in the Age Concern and the Mental Health Foundation report

"Promoting Mental Health and Well-being in Later Life" which is available (at the time of printing this document) on

http://www.ageconcern.org.uk/AgeConcern/Documents/Inquiry_report_Promoting_mental_health_and_well-being_in_later_life_-_FINAL.pdf

Key Point 16: A sense of social connectedness and wider social participation appears to be protective against suicide in older people. The development of personally valued social networks and personally valued 'circles of support' for older people should be given high priority. It is also worthy of note that as older people have increasing contact with paid professional services valued freely given friendships may over time, come to be replaced by paid professional ones. This may be problematic.

Access to means and suicide in older people

In the United Kingdom the most common means of suicide in older men is suicide by hanging and for elderly women it is suicide by drugs overdose.¹¹⁸ Geographical variations occur around the world; in the United States for example 73% of all older male suicides are related to the use of firearms.¹¹⁹ In Hong Kong where there is an abundance of 'high rise' buildings jumping is the most common means of suicide in older people.¹²⁰ A key learning point is that the available research clearly indicates that older males typically use more lethal means than older females (i.e. hanging, shooting, railway lines and jumping from tall structures). The availability and proximity of firearms especially in the household is an established risk factor.¹²¹ This may be of special significance in rural (especially farming) communities. In the United Kingdom there has in recent years been recognition that mental health in rural communities is an important element of an integrated mental health service. The depressed state of British farming in recent years coupled with a demographic trend toward an ageing farming occupational population is clearly of special significance in relation to access and proximity of firearms and suicide in the older person. In recent years tighter controls on ownership of and access to firearms has been a step in the right direction as far as suicide prevention is concerned. It should also be noted that in the United Kingdom not all rural suicides are in the farming community. There are many small businesses located in rural areas, often small firms with low staff numbers working in isolated settings, and with little help and support when the business begins to go wrong. In such a setting there may be an increased risk of suicide, particularly in older employers and older employees who lose their jobs.

Depression and suicide in older people

Suicide in older people is a complex multifaceted problem. There are no quick fixes; suicide in the older person is rarely (despite media description) related to one single cause. The research suggests that it can only be explained by encompassing genetic; biological; psychological; social; and wider societal and global factors.

However despite the complex nature of suicide in older people consensus does exist that affective illness; most frequently depression is a major precursor to suicide in the older person. For example Beautrais¹²² calculates that if mood disorders could be totally eliminated in older people then three quarters of elderly suicides would be prevented. This finding that suicide in older people is strongly correlated to mood disorders is supported by Bruce¹²³ (1999) who advocates the focussing of interventions on affective mood disorders in older people.

Key Point 16: The identification, treatment and management of Depression in older people is possibly the single most significant factor in the prevention of suicide in this group of people. However, even when its presence is noted by primary care workers and or /carers its significance is often missed or not acted upon. Stereotypical perceptions of older people may result in depression being seen as normative for 'old age' Depression in older people is eminently treatable.

Major depression is present in about 1-2% of adults who are over 65 years.¹²⁴ Poor health status, bereavement, carer stress, and lack of social support are all associated with depression in later life. All of these factors are also associated with increased risk of suicide.

Primary care physicians should be particularly vigilant regarding suicide risk in older people as evidence suggests that more than half of the older adults who attempt suicide visited a physician in the month leading up to death. There is some evidence that training primary care staff to assess and manage depression in older adults can be effective in reducing suicide rates.^{125 126} Common sense suggests that increasing the skills and resources of primary health care workers in the area of preventing identifying and treating affective mood disorders in the elderly may lead to significant reductions in suicide in older people. It is suggested that depression in later life is different from depression in adults,¹²⁷ the implication being that depression in older adults can be easily overlooked by health providers and others who lack specialised training. Despite the common misconception that older people because they are old can expect to be depressed, depression is not a 'normal' part of growing old. Depressive disorders are typically characterised by persistent low mood, loss of interest and enjoyment in life and feelings of reduced energy levels. Whereas in younger people (youth and middle age) with depression emotional and cognitive aspects such as sadness and negative self attitudes may predominate; somatic symptoms such as tiredness and fatigue, sleep and appetite disturbance together with feelings of hopelessness and thoughts about death are more typical in the older person with depression.¹²⁸ In the older person the presentation of depression may therefore be atypical; low mood for example is often 'masked' and anxiety or memory impairment may be the main presenting symptoms.¹²⁹ It is also the case that Dementia may be considered in the differential diagnosis of depression in older adults.¹³⁰ Between 10% and 15% of older adults have depressive symptoms, but major depression in older adults is relatively rare.¹³¹ This may give rise to therapeutic optimism in relation to older adults with depression who have suicidal ideation; depression in older adults is typically of mild or moderate severity and is eminently treatable. In older adults with depression the prognosis may be poor in those with chronic depression or those whose depression has a relapsing course.¹³²

In a major systematic review conducted in 1999 depression in older people was found to be associated with increased mortality.¹³³ Effective treatment for depressive disorders are well established in clinical practice:

Table 3.1 - **Interventions in Mild to Moderate or Severe Depression.** reproduced and adapted from BMJ (December 2005) Clinical Evidence. Issue 14 p.p. 1221 -1252.

Beneficial	Likely to be Beneficial	Unknown Effectiveness
<p>Prescription antidepressant drugs (tricyclic antidepressants (including low dose tricyclic antidepressants), selective serotonin reuptake inhibitors, monoamine oxidase inhibitors, reboxetine or venlafaxine) improved symptoms compared with placebo in mild to moderate and severe depression</p>	<p>Combining prescription antidepressant drugs and psychological treatments (in mild to moderate and severe depression) - One non-systematic review of RCTs in people aged 18-80 years found that, in people with severe depression, adding antidepressant drug treatment to interpersonal psychotherapy or to cognitive therapy improved symptoms compared with psychological treatment alone.</p>	<p>Befriending (in mild to moderate depression) - One small RCT provided insufficient evidence to assess befriending in people with mild to moderate depression</p>
<p>Cognitive therapy (in mild to moderate depression) - One systematic review in younger and older adults found that cognitive therapy improved symptoms compared with no treatment. Three systematic reviews in younger and older adults with mild to moderate depression found that psychological therapies (mainly interpersonal psychotherapy and cognitive therapy) increased the proportion of people who were in remission over 10-34 weeks compared with control (usual care, usual care plus pill placebo, or supportive therapy).</p>	<p>Non-directive counselling (in mild to moderate depression) - One systematic review in people aged 18 years or over with recent onset psychological problems, including depression, found that brief, non-directive counselling in primary care reduced symptom scores in the short term (< 6 months) in people with mild to moderate depression compared with usual care. However, it found no significant difference in scores in the long term (> 6 months).</p>	<p>Bibliotherapy (in mild to moderate depression) - One systematic review of RCTs in younger and older adults recruited by advertisement found limited evidence that bibliotherapy may reduce mild depressive symptoms compared with waiting list control or usual care. It is unclear whether people in the RCTs identified by the review are clinically representative of people with depressive disorders. Another RCT in people with depression found that bibliotherapy may improve symptoms over 2-6 months compared with antidepressant drugs.</p>
<p>Electro-convulsive therapy (in moderate to severe depression) - One systematic review in people with moderate to severe depressive disorder, many of whom were inpatients, found that electroconvulsive therapy improved symptoms over 1-6 weeks' treatment compared with simulated electro-convulsive therapy or antidepressant drugs. Another systematic review provided insufficient evidence to assess electroconvulsive therapy in older adults.</p>	<p>Problem solving therapy (in mild to moderate depression) - One systematic review in younger and older adults with mild to moderate depression in primary care found that psychological therapies (including problem solving therapy) improved outcomes compared with usual care.</p>	<p>Exercise (in mild to moderate depression) - One systematic review in younger and older adults found limited evidence from poor RCTs that exercise may improve symptoms compared with no treatment, and may be as effective as cognitive therapy. One poor RCT in older adults identified by the review found limited evidence that exercise may be as effective as antidepressant drugs in improving symptoms and may reduce relapse over 10 months</p>

<p>Interpersonal psychotherapy (in mild to moderate depression) - Two systematic reviews in younger and older adults with mild to moderate depression found that both psychological therapies (mainly interpersonal psychotherapy and cognitive therapy) increased the proportion of people who were in remission over 10-34 weeks compared with control (usual care, usual care plus pill placebo, or supportive therapy).</p>	<p>St John's Wort (in mild to moderate depression) - Two systematic reviews and one subsequent RCT in people with mild to moderate depressive disorders found that St John's Wort (<i>Hypericum perforatum</i>) improved depressive symptoms over 4-12 weeks compared with placebo. However, two subsequent RCTs found no significant difference in symptoms at 8 weeks between St John's Wort and placebo. RCTs found no significant difference in symptoms between St John's Wort and prescription antidepressant drugs. The results of the RCTs should be interpreted with caution because many of the RCTs did not use standardised preparations of St John's Wort, and doses of antidepressant drugs varied.</p>	<p>Psychological treatments (cognitive therapy, interpersonal psychotherapy, non-directive counselling, and problem solving therapy) in severe depression - RCTs provided insufficient evidence to assess psychological treatments in severe depression.</p>
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Attention is also be drawn to the clinical guidance produced by the National Institute for Clinical Excellence, "The Management of Depression in Primary and Secondary care, Clinical Guideline 23", which expands on the finding that

...for a significant number of people with mild to moderate depression, brief interventions delivered by the primary care team are effective; for others –particularly if they have not responded to the initial brief intervention – more complex interventions, which could be provided in primary or secondary care, are required.

Many patients with milder depression respond to interventions such as exercise or guided self-help, although many improve while being monitored without additional help. More structured therapies, such as problem-solving, brief CBT or counselling can be helpful. Antidepressant drugs and psychological therapies, such as longer-term CBT or interpersonal psychotherapy (IPT), are not recommended as an initial treatment; these may be offered when simpler methods (for example, guided self-help or exercise) have failed to produce an adequate response.

Wider interventions and suicide in older people

A number of wider community schemes have been utilised over the years that have produced some effect on suicide rates in older people. The 'Gatekeeper' scheme run in Nebraska (U.S.A) is one such example. In this scheme workers such as postal workers, meter readers, milk delivery people, utility workers and others were recruited and trained to recognise potential problems associated with the older people that they met in the course of their daily work. If a potential problem was identified by the worker they could then contact and/or refer to services on the older persons behalf. Where the older person is living alone and is perhaps isolated from neighbours and the wider local community such a scheme can make a significant difference.

The potential success of community based schemes is further demonstrated by the Italian 'Tele-help' approach. In this scheme almost 19,000 older people living in and around Padua received telephone support over a period of ten years.

The scheme focussed on functionally impaired, isolated and at risk older people and provided them with a telephone based call service. Each person in the scheme received regular on-going monitoring by telephone as well as telephone based short term emotional support. If a problem was identified then additional services and interventions were brought in as required. De Leo et al ¹³⁴ report that over a ten year period significant reductions were found in the expected number of suicides within this group. The effect was particularly strong in the female users of the 'Tele-help' service. There is much anecdotal evidence that women use the telephone in a different way to that of men. Men tend to see the telephone in an instrumental way – as a straightforward problem solving device. Women on the other hand may be much more likely to use the telephone as a social support, engaging in social and emotional discussion. It is interesting to note that in the Padua study the suicide rate for women was six times less than what had been expected. Could there be potential within organisations such as NHS Direct and also the Samaritans to offer such services?

Key Point 17: The 'gate-keeper' and 'tele-help' approaches do seem to provide some degree of effectiveness in preventing older people from taking their own lives, and yet there appears to be very few (if any) such schemes in operation in the United Kingdom.

Reducing access to means

One clearly beneficial approach to suicide prevention in older people is to reduce access to the means of suicide. Historically the 'classic' example of this was the change over from the use of toxic coal gas, to the less toxic north-sea (sometimes referred to as natural gas) gas in the period of 1950 to 1970. Krietman¹³⁵ explains how 'gas oven' suicide was, just after the end of World war 2 the most common method of suicide in the United Kingdom, accounting for nearly half of all suicides.

As the gradual change over to north-sea gas occurred the carbon monoxide content of the gas supply began to undergo significant reductions and suicide death by gassing reduced. There was only a slight increase in suicide by other means, but overall suicide rates dropped by almost a third. This changeover clearly reduced the national suicide rates by many thousands.

In the United Kingdom the restrictions introduced on the sale of and access to Paracetamol has been largely successful in reducing suicide by that means.¹³⁶ In the United States the introduction of the Brady Handgun Violence Prevention Act of 1994 resulted in 'background' checks and a 'cooling off' period of several days before the purchased firearm could be taken away from the supplier. The effects of the introduction of the Brady Act were examined by Ludwig and Cook ¹³⁷ who found that there was no significant difference in suicide rates by firearm between those states that had introduced the restrictions and those that had not; except in the over 55 age group where there had been a significant decrease.

The logic behind restriction of access to means seems somewhat counter intuitive. Surely one can reason if 'Paracetamol' is not readily available then the actively suicidal person will turn to some other more accessible means? However there is evidence that the wish for suicide can be a short term and sudden impulse, and if the preferred method is not readily accessible and available then the short term wish to die may pass before the means can be secured. So the availability of the preferred method may be significant in turning a suicidal thought into an actual suicidal act ¹³⁸ A number of methods of attempting suicide can be categorized as 'lethal' means; firearms, jumping from high places, hanging, using highly toxic chemicals) Older males in particular often select lethal means to end their lives. It follows that once the lethal means is enacted there is reduced (if any) chance of resolute and the means are highly likely to be successful.

Older females prefer less lethal means, particularly 'overdose' and have therefore a correspondingly greater chance of being discovered and the means (unless taken in sufficiently high dose to be effective and at the same time not so high as to induce vomiting) may not always bring about death. There exists some anecdotal evidence that those older persons who are determined to take their own lives may be making use of the Internet to discover 'correct technique' in the use of medication to bring about death – for example dosage, lethal combinations, anti emetics to prevent vomiting, and body positioning to aid drug transportation.

Key Point 17: The available research evidence demonstrates that some older person's suicides may be prevented by restriction to access of means of suicide. For example, primary care workers can as part of their daily routine discourage the hoarding of prescription and over the counter drugs by older people.

Primary, Secondary and Tertiary Interventions

In attempting to prevent suicide in older people programmes usually address three levels of intervention, primary, secondary and tertiary. It is clear from the research literature that many programmes focus on what might be called *proximal* actions i.e. those actions that are close to the older person, an example would be the 'micro-management' of the General Practitioner – Client interaction. Other programmes focus more on *distal* interventions i.e. those at some distance from the older person for example legislation and public policy action to reduce access to means.

Primary preventative measures address whole populations and attempt to engineer and bring about conditions where suicide in the older person would be less likely to occur.

Secondary measures are interventions aimed at the suicidal behaviour and situation itself.

Tertiary intervention will in effect focus on those individuals who attempted, but did not complete, suicide. It is important to note that previous suicide attempts are the best predictor of future suicide attempts in older people¹³⁹. Between 3% and 7% of older people who attempt suicide do actually kill themselves within 2 to 12 years of the first attempt.¹⁴⁰

¹⁴¹ Any past suicidal behaviour should therefore be treated with the utmost seriousness. One must also be cautious in assuming that an older person who has not made a suicide attempt in the past will not do so in the future. Older people often take their own lives having never made a previous attempt. In summary it would be easy to assume that the trajectory of suicide in an older person is; isolation and depression, followed by suicidal ideation, followed by a suicide attempt or attempts, followed at some point by successful completion. This is often not the case. It was noted earlier that the incidence of suicidal ideation in older people varies considerably and it is also the case that the nature of suicidal ideation can also vary considerably from an essentially *passive* wish to die that is unlikely to directly lead to a suicidal act, to an *active* determination to die that leads directly to suicidal behaviour. Research suggests that when an older person decides to take their own life the behaviour is less impulsive than that found in younger people, and the chosen method is more likely to be lethal.¹⁴²

Key Point 18: All care professionals, (including those in all primary care and secondary and social care settings), need to be wary of assuming a linear path toward suicide for the older person. The elderly person who takes their own life may not have been isolated and alone, suicidal ideation may not have been present and they may not have made a previous attempt at taking their own life.

Table 4 - Primary, secondary and tertiary interventions for suicide in the older person. Adapted from De Leo, D. Scocco, P. Treatment and Prevention of suicidal behaviour in the elderly. In Hawton, K. and Van Heeringen, K. (2000). *The international handbook of suicide and attempted suicide*. Wiley, Chichester. P.559.

Primary Prevention	Secondary Prevention	Tertiary Prevention
Promotion of economic prosperity. Personal Health Promotion. Retirement Planning. Promotion of social participation. Building networks of support. Reduction in access to means.	Detection of suicidal ideation. Older person help-lines. Community support programmes. Access to Mental Health Services. Educational programmes (including professionals, patients and carers). Treatment of Depression. Treatment of the Psychological and Physical consequences of Physical Illness – including improved pain management.	Crisis Intervention systems. Educational Programmes (including professionals, patients and carers). Individual and Group Therapies (especially Cognitive Behaviour Therapy). Self Help groups. Re-socialisation groups.

Economic factors

Research suggests that economic situation of older people is linked with suicide rates.¹⁴³ For example the introduction of old age pension payments in the United States reduced the likelihood of suicide.

Although the relationship is not a particularly strong one improving the income status of older people does appear to reduce the likelihood of suicide.¹⁴⁴ There may be a difference between the so called young-old (65-74 years) and the so called old-old (75 years and over) In one Italian study ¹⁴⁵ is suggested that the young-old age group exhibit stress patterns which are typically found in younger people, and that manipulative type behaviours associated with deliberate self harm and 'cries for help' are more frequent in this group than in the old-old. Some researchers use the term "elderly adolescentism" to describe this phenomenon.

Retirement and suicide in older people

Retirement has been identified as a risk factor for suicide. Various hypotheses have been put forward to explain this. One possibility is that an individuals identity and sense of 'self' can be so bound up with work, work status and the work role that retirement comes as a major shock . On retirement such people may find that they have little else to fall back on, work meant that they had few hobbies and possibly few friends and confidants outside of the work setting. Whereas previously their life had been structured by their employment, in retirement they find little to do, feel undervalued, and 'on the scrap heap' Many report 'role conflict' at home in early retirement. Perhaps for the first time in their lives partners find themselves together at home. If one partner has retired earlier or has been at home the presence of the new 'retiree' can cause considerable stress as both try to work out their new roles.

So increasing life expectancy; overall affluence and higher levels of baseline health coupled with changes in values and outlook may mean that more and more people want flexibility in their retirement options.

Anecdotally some medical staff who work with older people now regard 'old age' as having 'shifted' from the 'traditional' retirement age of 65 years to the upper 70,s and 80s. Health and social care systems however continue to regard 65 as the cut off point for old age.

Key Point 19: Retirement is a risk factor for suicide in older people. This is particularly true where the older person had few interests other than their work and where potential role conflicts exist at home.

Marriage and parenthood

In younger age groups (and possibly in older age as well) marriage has been found to be a protective factor for suicide; with single people more at risk.¹⁴⁶ Parenthood may also be a protective factor in suicide.^{147 148}. Interestingly enough the protective effects of marriage for women was identified as long ago as the 1890's in the work of the pioneering sociologist Emile Durkheim.¹⁴⁹ In terms of parenthood it is of note that many people now delay having children until well into their thirties and forties. When this is combined with the fact that on average children stay at home with parents longer than at any time in the past, the so called 'empty nest' phenomena may increasingly become a feature for parents in their sixties.

Social support networks

Epidemiological and demographic data demonstrates that those older people who are 75 years and above have a higher suicide rate than younger older people.

A range of factors have been identified to explain this; poorer overall health; increasing frailty; and increasing loss of autonomy. It has also been suggested that this age group experience the compound effects of increasing losses. When this is considered against the rapid rates of change that exist in modern societies, it could be that the experience of increasing social isolation may be an important factor.

The decline in modern society of community supports and civic life in general is well documented^{150 151 152} It is suggested that work on building social support networks for elderly people may have longer term impact in reducing suicide in older people.

Secondary Prevention

Increased detection of suicidal ideation is a key factor in the secondary prevention of suicide in older people. As previously stated a previous non fatal suicidal attempt is highly indicative of a future attempt, this is particularly the case if the suicidal attempt involved *violent* means. Behaviour in the elderly is frequently associated with suicidal intent and the use of violent methods. Suicide in older people is statistically less frequently preceded by attempted suicide¹⁵³ the detection of suicidal ideation is therefore very important. There is some evidence to suggest that when suicidal intent is communicated by an older person then it is usually by more than one means and often to more than one person.¹⁵⁴ Even where an older person communicates suicidal intent it may not be taken seriously or be acted upon by others. It is not uncommon in psychological autopsy studies to discover

information about recent suicidal ideation in medical and nursing notes but with no subsequent assessment of depression or management plan for the suicidal ideation. It is also worth noting that the expression of suicidal ideation may be masked. For example an older person might say something like "I'm not bothered about my holiday this year, I won't be looking at any brochures."

Of course this may be a harmless comment but it might be an underlying indirect and masked communication of a future lethal intent. It is essential that all those involved with older people think and reflect on what is being communicated in such instances.

Post incident care of older people who attempt suicide

Given the likely underlying physical frailty of older people a high standard of physical care within the immediate emergency setting; accident and emergency; and any subsequent intensive care should be a high priority. Once stabilised the research suggests that psychological assessment including the presence of possible continuing suicidal ideation is indicated. Linehan ¹⁵⁵ suggests a "5 S's" approach -

safe, specific, simple, scientific and **super fast** in action. There does not appear any extensive research in the area of the post incident care, management, and follow up of older people who attempt suicide -more research is obviously needed.

There is some evidence that older people are underrepresented in suicidal prevention programmes ¹⁵⁶ it is likely that the existence of such programmes is not widely known and there may be a perception that they are not for 'older people.'

In one study it was suggested that befriending (including home visits and meeting out) is a useful approach in the post incident management of an older person who has attempted suicide. ¹⁵⁷ It is apparent that older people probably under use the broad range of mental

health services that are available. There should be a review of services that are available to examine to what extent they are 'older person friendly.'

Education programmes

Research indicates that health and social care professionals who come into contact with older people could benefit from education about suicide and older people. Research ¹⁵⁸ ¹⁵⁹ indicates that the following might be helpful:

- **altering myths and mistaken perceptions which develop around suicidal behaviours in older people.**
- **providing information on risk factors relating to suicide and older people**
- **training to recognise signs of suicidal intent and suicidal ideation.**
- **Identifying and discussing local resources and support networks.**
- **Increasing evidence based knowledge about suicide and older people.**

Given that many older people who take their own lives had visited their general practitioner in the days and weeks prior to their suicide ¹⁶⁰ ¹⁶¹ it may be appropriate to target practice staff in such education programmes. One of the most well reported studies in the area of education and suicide in older people was the Gotland study ¹⁶² carried out in Sweden. Specific education was given to general practitioners on the recognition and treatment of depression. In the year following the delivery of the programme there was a decline in older person's suicide rates in the area covered by the education programme. However it was also

reported that after two years the suicide rates for older people had returned to the previous levels.

The need for the improved treatment of depression in older people

Beautrias et al ¹⁶³ estimates that suicide rates in older people could be reduced by up to 80% if depression and other mood disorders in older people were effectively managed and treated. In one study ¹⁶⁴ there was a significant reduction in suicidal thoughts in the first two weeks of treatment in depressed older out patients. There may be some doubt about the extent to which older people adhere to anti depressant medication regimes. In one study of 3,400 suicide toxological screenings only 16% were found to have anti-depressant medication present in their bodies at the time of death.¹⁶⁵ Evidence also exists that the use of long term lithium therapy has been found to reduce the risk of suicide in people attending lithium clinics compared to matched non-attenders with a similar diagnosis.¹⁶⁶

Conclusion

At some time in their lives most (if not all) people find themselves in a situation of mental distress where they feel that there is no escape; that the situation is intolerable and that it will go on forever. In times such as these people seek escape from their problems. Fortunately the vast majority of people are able to find a way through their difficulties, resolve (or at least manage) the situation and move on with their lives. However for some the mental and spiritual despair is so great that suicide offers a very real escape. When we are happy it is difficult to contemplate just how someone can be so despairing of living that they believe that they would be

better off dead. Every year nearly 5000 older people find themselves in that state of despair and take their own lives.

This paper has demonstrated that suicide in older people is a multifaceted and complex issue involving a range of factors; physical, psychological, social and cultural. What makes an older person arrive at the conclusion that their own life is too much to bear is no simple matter. What is clear however is that **untreated depression** and other **mood disorders** are highly significant factors for a great many older people who take their own lives.

Untreated depression is a seriously debilitating condition and it is clear that if older people themselves, their family and friends and health and social care professionals could recognise depressive illness and do something about it then the serious problem of suicide in older people could be significantly reduced. The World Health organisation have estimated that by the year 2020 Depression will be the second largest factor in global disease, and by that time there may well be more than one and a half million deaths by suicide globally every year. Suicide and in particular suicide in older people is a serious and pressing public health problem.

There is now a wealth of research on suicide in older people and the literature indicates the presence of a fairly high degree of consensus as to what needs to be done. However older people are viewed by many as 'less eligible' and they often come a long way down the list of so called 'priority groups.' In short a great many older people who are isolated and depressed are not getting the help they desperately need. White older males over the age of 85 are at particular risk in this respect.¹⁶⁷ In conclusion this discussion paper has provided a brief overview of the published research on suicide in older people. It is not exhaustive and does not report on every aspect of this pressing and complex problem. The purpose of this paper was to provide an evidence based review that could be used as a basis for discussion

by all of the major groups of people who engage with older people. It is hoped that such discussions will assist health and social care providers and policy makers, and the media to take action. As this paper has shown there is now a wealth of reliable data on suicide in older people. What we need now is concerted and lasting action.

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