self harm and suicide

A review of evidence for prevention

from the UK focal point for violence and injury prevention

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About the UK focal point for violence and injury prevention

The 49th World Health Assembly (1996) declared violence a major and increasing global public health problem. In response, the World Health Organization (WHO) published the *World Report on Violence and Health* and initiated a major programme to support and develop violence and injury prevention work globally. As part of this programme, each member state has designated a national focal point for violence and injury prevention. The network of focal points works with the WHO to promote violence and injury prevention at national and international levels, develop capacity for prevention, and share evidence on effective prevention practice and policy.

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A summary of evidence: successful or promising interventions to prevent self harm or suicide

Developing awareness and skills: School-based education programmes can improve knowledge, attitudes and help-seeking behaviours. Programmes that develop coping skills can improve attitudes towards suicide and reduce suicidal ideation. They have shown promise in reducing both completed and attempted suicides.

Increasing identification and referral: Although findings have been inconsistent, training for health care professionals to improve awareness of suicide has had positive short term effects on suicides and suicide attempts. Training for gatekeepers (other professionals in contact with at-risk groups) can reduce suicide and increase use of mental health services when used as part of wider multi-component interventions.

Supporting and treating those at risk: Helplines can have small effects on levels of suicide when included in services at suicide prevention centres (that also provide outreach and awareness campaigns). There is some evidence that psychotherapy can reduce suicidal ideation, suicide attempts, and repetition of suicidal/self harm behaviour. Among pople attempting suicide, professional contact a year after discharge from hospital can reduce the number of reattempts. Among some high-risk groups (e.g. those with mood disorders), drug treatments can prevent suicide attempts.

Community interventions: At hotspot areas, the use of safety fencing or signposting to support services can reduce suicides. Multi-component community interventions that combine a variety of initiatives (e.g. education, training for professionals and support) can also reduce rates of suicide.

Societal measures: Restriction of access to lethal means can be effective in reducing suicide rates. Although evidence is limited, the introduction of media guidelines on suicide reporting has been associated with positive changes in reporting as well as decreases in annual suicide levels.

The prevention of mental health problems such as suicide and self harm (intentional injury or poisoning without suicidal intent) has received much attention in the UK and elsewhere over the past decade. In the UK, although rates of completed suicide have been steadily falling, suicide and self harm remain important social and public health issues. A total of 5,706 completed suicides were recorded throughout the UK in 2008 (1), while over 107,000 hospital episodes were recorded for intentional self harm in England alone (including attempted suicide [2], 2008/09). Due to its often hidden nature, levels of self harm are likely to be more widespread than these figures indicate. For instance, among 15 and 16 year olds, lifetime prevalence of such behaviour is around 13-14%, and prevalence for the last six months around 11% (3,4).

Self harm and suicide are often considered separate issues, affecting different population groups. For instance, males, particularly those aged 15-44 have the highest rates of completed suicide (1), while self harm is most common among females and young people (15-19 for females; 20-24 for males [5]). However, the two behaviours are related. For example, a history of self harm is a known risk factor for suicidal behaviour (6) and between 0.5% and 2% of people attending hospital for self harm die from suicide within one year, rising to over 5% after nine years (7). In addition, suicide and self harm share some common risk factors. These include personality disorders, eating disorders, depression and anxiety, aggressive personalities, misuse of alcohol or drugs, childhood emotional, physical or sexual abuse, and living in deprived areas (6,8-10).

Suicide and self harm in the UK: some facts

- Among people presenting to Accident and Emergency (A&E) departments for self harm in three English cities, the majority were for self poisoning through use of paracetamol or other drugs. Only 15% involved self injury only (e.g. cutting oneself) (5).
- Over half of individuals presenting to A&E for self harm had consumed alcohol either before or during harmful behaviour (5).
- The most common method of suicide among both males and females is hanging, strangulation or suffocation (11).
- Suicide rates among those living in the most deprived areas of the UK are double those living in the least deprived areas (9).
- In England and Wales, higher rates of suicide are reported during hotter temperatures (above 18 ^{o}C [12]).

For self harm specifically, other important risk factors have been identified, including experience of greater negative emotion within daily lives, low self esteem, poor problem solving abilities, difficulty expressing emotion, separation of parents and lower levels of education (8). For suicide, risk is higher among those with poor physical health or disability, neurobiological dysfunction, stressful life experiences such as recent loss, feelings of hopelessness or pessimism, a family history of suicide (6) and living in a remote rural area (13). Exposure to suicidal behaviour in the media is also an important influence for suicides, particularly when accounts are detailed and include photographic images or methods used (6). Importantly, several protective factors have been identified for suicide and suicidal behaviour, including religious beliefs or spirituality, moral objections to suicide, social support, and being pregnant or having young children in the household (14).

Suicide and self harm are preventable behaviours, and different types of interventions have been implemented to reduce or prevent them occurring. These include: educating and raising awareness of suicide; increasing coping and problem solving skills; increasing identification and referral of those at risk; treating mental health problems; restricting lethal means; and educating the media. This document describes initiatives in more detail and discusses evidence for their effectiveness. The majority of programmes focus on suicide prevention but, where possible, impacts on self harm have also been included.

1. Developing awareness and skills

1.1 Suicide awareness and education

Suicide awareness and education programmes teach individuals how to recognise and respond to warning signs of suicide in themselves or others. They are usually either school-based, or society-wide (intended for the general public). For school-based initiatives, programmes are often universal and use a variety of teaching methods such as group discussions, videos and printed materials. Some programmes incorporate skill-building activities to develop coping and active listening skills, enabling students to support suicidal friends (15). In the US, education programmes have increased knowledge, attitudes and help-seeking behaviours among pupils (15-19). However, some studies have reported no, or even adverse, effects (e.g. through making people less likely to suggest mental health services to a friend with suicidal thoughts) (15). Less is known about the effects on suicidal behaviour, but there are

reports of reduced levels of attempted suicide (e.g. the SOS suicide prevention programme [16,17]). In the UK, teaching packs are available from a number of sources for schools wishing to raise pupil awareness of suicide e.g. Samaritans (*www.samaritans.org)* and Papyrus (*www.papyrus-uk.org*), but their effectiveness has not been researched.

SOS suicide prevention programme

In the US, the SOS suicide prevention programme teaches action steps for young people to take if they think themselves or others are having suicidal thoughts: ACT – Acknowledge, Care and Tell. Young people are taught to acknowledge the signs of suicide, let the person know someone cares, and to tell a responsible adult. The programme uses materials such as video, screening for depression (see also section on increasing identification) and discussion around suicide issues. The programme has been associated with lower rates of suicide attempts, as well as greater knowledge and more adaptive attitudes about depression and suicide (16,17).

For the general public, media campaigns (conveying prevention messages using television, radio, bill-boards and printed materials) have been used to raise awareness of suicide, remove the stigma around seeking help and increase knowledge about support services. They can be particularly useful when targeted at high-risk groups, such as young men (who are often reluctant to seek help for depression or stress) or individuals living in rural areas. For instance, Campaign Against Living Miserably (CALM) offers advice and support to men across the UK aged 15-35 years. Using a website, advertising campaigns and a phone line, it encourages men to deal with their problems and helps them find support (20). Evaluation of media campaigns is difficult

and research is limited. While they are known to improve knowledge and attitudes towards depression and suicide, effects on help-seeking and suicidal behaviours are unclear (21). However, they can be effective in reducing suicides when implemented as part of wider multi-component interventions (22), see section on community interventions.

1.2 Developing coping skills

Factors such as poor coping and problem solving skills are risk factors for self harm and suicide among young people. Consequently, programmes have been designed to develop and improve these abilities. Programmes can be universal, but are often targeted at those most in need of help (e.g. potential school drop-outs). These initiatives can improve attitudes towards suicide and reduce suicidal ideation (18), e.g. Counselors Care (C-CARE) and Coping and Supporting Training (CAST) (23,24). There is also some evidence of reduced rates of attempted and completed suicides (25). In England, the development of coping skills are often included in Personal Health and Social Education (PHSE) lessons, which cover issues such as managing feelings and emotions in a positive way, dealing with bullying and asking for help. One programme available for primary and secondary schools is SEAL (Social and Emotional Aspects of Learning), which takes a whole school approach to teaching social, emotional and behavioural skills to children (26). The programme covers issues such as: making and sustaining friendships; solving problems; managing frustration; anger and anxiety; and recovering from setbacks. However, to date, there is little research evaluating these activities or UK based programmes dealing specifically with suicide prevention.

C-CARE and CAST programmes

Based in the US, the C-CARE (Counselors Care) and CAST (Coping and Supporting Training) programmes aim to reduce suicide potential among high school students. The C-CARE programme consists of a one-to-one assessment review of risk and protective factors, followed by a 1.5-2 hour counselling session and social "connections" intervention with parents and school personnel. The CAST programme extends this initiative by also offering a 12 session, peer group based, coping and life skills training programme. The programmes have been associated with decreases in suicidal thoughts and ideations, feelings of hopelessness, depression and drug involvement (23,24,27).

2. Increasing identification and referral

2.1 Training for health professionals

The majority of individuals who die from suicide make contact with health services in the preceding weeks (28). Thus, health professionals such as GPs have a significant role to play in prevention, through recognising depression, assessing risks of self harm and suicide, recognising suicidal ideation and behaviour, and ensuring those at risk are referred quickly to professional support. Training programmes raise awareness of suicide among health professionals, develop understanding of the risk factors and warning signs, enable identification of vulnerable individuals and increase confidence in handling cases (e.g. learning to provide appropriate referral where needed). Positive short-term effects on suicides and suicide attempts have been reported (18,29-31), but results have been mixed and training programs may not be enough to reduce suicide rates without additional interventions (32).

Health professionals can be trained in the use of screening tools to aid identification of at-risk individuals. These tools consist of a short series of questions that enquire about risk factors for suicide such as depression, substance use, thoughts of death, self harm, suicidal ideation and past suicide attempts. Answers to the questions are scored, with overall scores providing an indication of risk. Screening tools can reliably identify people at risk of suicide, but they also have the potential to falsely classify people as at-risk, creating additional burden on health care staff (33). There have been inconsistent results around their effectiveness in reducing risks of suicide, with outcomes largely dependent on the aftercare and support offered through referral (33).

ASIST (Applied Suicide Intervention Skills Training)

In Scotland, the ASIST programme was implemented as part of the Suicide National Strategy Choose Life. ASIST is a two day workshop that targets professional and lay caregivers. It teaches how to identify and respond to those at risk of suicide, using workshops and videos. It covers five main components:

- Preparing participants for their learning experience;
- Sensitising participants to their own and others' attitudes towards suicide;
- Teaching about the needs of a person at risk, and developing the knowledge and skills to recognise those at risk and develop a "safeplan";
- Developing skills to assist those in need of help;
- Generating information about resources in the local community.

An evaluation of the programme in Scotland showed generally positive findings, including increases in: levels of knowledge, confidence and skills; intervention with a person at risk of suicide; and awareness of suicide and reduced stigma within organisations and communities (34).

2.2 Training for gatekeepers

Gatekeepers are people in direct contact with at-risk populations. These include clergy, pharmacists, caregivers, personnel staff, prison workers, police and teachers. Along with health professionals, these people can play a key role in increasing identification and referral of suicidal individuals, especially if the vulnerable people they come into contact with are not in touch with health or mental health services for their problems. Gatekeeper training (such as the ASIST training programme [34]) aims to raise awareness of suicide and its risk factors, develop the ability to recognise signs and symptoms of suicidal behaviour, increase questioning of those that may be suffering and raise awareness of referral services. These initiatives can increase gatekeeper knowledge of suicide (including risk factors, warning signs, and recommended interventions) and perceived efficacy in dealing with suicidal individuals (35-38). However, they are less effective in promoting changes in behaviour (e.g. asking about suicidal thoughts or referring to services [35,36]). Less is known about the effects on actual levels of suicide or attempted suicide of those with whom they come into contact. However, gatekeeper training can be effective in reducing suicide when used as part of wider multi-component interventions (39). Potential barriers to gatekeeper programmes include a lack of interest by community members, unwillingness to accept help by those suffering and a lack of effective referral services (38).

3. Supporting and treating those at risk

3.1 Helplines

For those experiencing distress or suicidal thoughts, confidential helplines (also known as crisis hotlines) can offer immediate counselling and advice. They try to reduce crisis states of callers, identity problems, generate coping strategies or solutions and refer those in need to local support services. In the UK, the Samaritans (40) and Childline (41) offer 24 hour, confidential hotlines for adults and children in need of help. Use of a hotline has beneficial effects over the course of the phone call, such as a decrease in suicide status, hopelessness and psychological pain (42, 43). However, effects can be short lived; in one US study, although improvements in feelings of hopelessness and psychological pain were sustained in the weeks following the call, intent to die returned to pre-call levels (42). Although findings are inconsistent, in the US, hotlines provided as part of suicide prevention centres (these may also conduct outreach work and awareness campaigns) have been associated with small preventative community effects on rates of suicide (44,45).

3.2 Psychotherapy

Psychotherapy is an umbrella term used for a number of treatments[1] that address emotional and behavioural problems through spoken conversation with a therapist. Components differ, but can include activities such as problem solving strategies, skills training, behavioural analysis and modification of dysfunctional beliefs.

[1] For example, cognitive behavioural therapy, mindfulness-based cognitive behavioural therapy, psychodynamic psychotherapy, dialectic behaviour therapy.

Psychotherapy is commonly used to address psychological problems such as personality or bipolar disorder, or to treat depression, stress and personal/relationship problems, all of which increase the risk of suicide or self harm. It is also used to treat individuals who self harm or have attempted suicide in the past, to reduce levels of reattempt. Although effects are inconsistent, among those who have attempted suicide or self harm, psychotherapy can be effective in reducing repetition of harmful behaviour in some instances (31,33,46,47). In one study, for example, compared with standard care, the use of cognitive behavioural therapy halved the risk of suicide reattempt (48). Psychotherapy, particularly dialectic behavioural therapy (49), has also been found to be effective in reducing suicide attempts among those with personality disorders.

3.3 Other psychosocial interventions

A variety of other psychosocial interventions have been trialled among those at risk of suicide with some success. For instance, in Italy, among elderly individuals in need of support (e.g. were socially isolated, disabled or had a psychiatric disorder), the use of a telephone service was associated with less suicidal behaviour. The service used trained staff, who contacted clients twice a week to check on their health and offer emotional support and provided clients with an alarm for emergencies (50). Other interventions have been offered to those who have already attempted suicide to prevent any reattempts. For instance, contacting patients a short time (one to three months) after their discharge from hospital (for a suicide attempt) to review the treatment offered on discharge and to offer psychological support has been successful in reducing the number of suicide

reattempts over the next 13 months (51). Regardless of whether support is provided, simply contacting those treated for self harm or suicide attempt up to 12 months after discharge and offering support if needed can also have some effect on repetitions of deliberate self harm/suicide (52).

3.4 Pharmacology

Biological factors, such as low serotonin levels and mood or personality disorders are known to increase the risk of self harm and suicidal behaviour. The use of anti-depressants, anti-psychotics or mood stabilisers are often used to treat individuals engaging in self harm or suicidal behaviours, experiencing personality disorders, or exhibiting related symptoms such as depression and anxiety. Drug treatments are known to be effective in treating depressive and anxiety disorders (e.g. anti-depressants [53]), and have shown promise in treating personality disorders (54). However, less is known about the effects on deliberate self harm, suicide attempts or actual levels of suicide. The use of anti-depressants is not thought to offer any benefits for reducing deliberate self harm (47) and may even increase the risk of self harm and suicide among some users (55,56). However, among high-risk groups, the use of drug treatments has demonstrated positive effects. For instance, use of lithium can be effective in preventing suicide and deliberate self harm among those with mood disorders (57,58), while the use of clozapine can reduce suicidal attempts among those with schizophrenia (59). In general, no firm conclusions can yet be drawn about the effectiveness of drug treatment in preventing or reducing self harm or suicidal behaviour.

4. Community interventions

4.1 Targeting hotspots

Certain locations within the community may be regarded as hotspots for suicides (e.g. high buildings, bridges or train stations). Here, measures can be put in place to prevent suicide attempts, such as blocking off access to high platforms, use of safety fencing or netting at problem spots, advertising helplines or other support services, or increasing use of security staff. The use of safety fencing/netting and helpline signposting at problem spots are both considered effective methods of reducing numbers of suicides at location hotspots (60-62). However, the use of safety fencing can often be aesthetically unappealing and effectiveness may depend on whether similar locations are present nearby (e.g. other locations may be substituted [63]). The use of security staff around hotspot locations can be costly and there is little research around its effectiveness (62).

4.2 Multi-component interventions

The causes of self harm and suicidal behaviour are wide ranging and complex. Multi-component interventions offer the opportunity to address a variety of risk factors at one time, and at varying levels (e.g. individual, community and societal). For instance, these interventions may combine school and community education initiatives with training for health professionals and gatekeepers, and emotional support for those in need of help. These types of intervention have been successful in reducing rates of suicide (22,39). For instance, in a region of Germany, a two year programme

combined four elements to address depression: training for health professionals; a media and public information campaign; training for gatekeepers such as police, carers and teachers; and support for depressed people and their families, including the distribution of emergency cards for individuals at high risk of attempting suicide. Over the intervention period and during the following year, levels of suicidal acts decreased by over 30% (22).

5. Societal measures

5.1 Restricting lethal means

Many attempted suicides involve the use of lethal means, such as paracetamol, barbiturates and vehicle emissions. One effective way of addressing suicide rates has been to restrict access to these means at a societal level. For instance, in the UK, regulations introduced in 1998 restricted the maximum number of tablets allowed in one pack of paracetamol and the maximum number of tablets that could be bought over the counter at any one time. These regulations were associated with reduced deaths and hospital admissions due to paracetamol poisoning, along with decreased sales of paracetamol (64,65). Moreover, in England and Wales, suicide deaths from paracetamol reduced by 22% in the year following the change (66). In the UK and elsewhere, legislation restricting levels of carbon monoxide content in car exhaust fumes have contributed to decreases in the levels of completed suicides (67-69). Furthermore, in some countries, restricting access to firearms (e.g. through setting a minimum age for purchase or requiring licensing and registration schemes for owners) has

reduced suicide rates (70). Method substitution does sometimes occur (69), but there will still be a significant number who do not consider any other method, meaning that lives can still be saved.

5.2 Educating the media

Increased reporting or portrayal of suicide in the media can lead to a rise in the rate of suicides, particularly when reports provide detail about the methods used (71,72). Since the mid 1990s, a focus of suicide prevention has been to educate the media about responsible reporting. This involves increasing awareness about suicide and its risks, providing guidelines on the least harmful methods of reporting suicides and teaching about how sensitive reporting can help tackle the stigma of mental illness. In the UK, guidelines have been published by the Samaritans (73), MediaWise (74) and the Department of Health (75). In addition, at an international level, guidelines are provided by the World Health Organization (76). Internationally, the introduction of guidelines has been associated with positive changes in reporting (e.g. Switzerland [77], Hong Kong [78]), as well as decreases in annual suicide levels (e.g Austria [79]). However, evidence is limited (80) and little is known about what effects guidelines have had in the UK specifically.

Shift (Department of Health) guidelines for reporting suicide

In 2008, Shift, the Department of Health funded campaign to tackle the stigma and discrimination associated with mental illness, published a guide for journalists on how sensitive reporting can help tackle the stigma of mental illness. The handbook, *What's the Story?: Reporting Mental Health and Suicide* (75), gives practical advice to the media on covering suicide, mental illness and violent crime by psychiatric patients. This handbook highlights the international evidence that careless reporting of suicide may trigger copycat suicides and provides advice to journalists to encourage more sensitive and responsible coverage. Key guidance for suicide reporting includes:

- Avoid excessive details about suicide methods;
- Avoid sensational headlines or language that romanticises suicide;
- Avoid suggesting a simple cause and effect explanation;
- Avoid using dramatic photographs, footage or images related to suicide;
- Always include details of an appropriate helpline, such as the Samaritans.

6. Summary

There have been many interventions implemented to reduce and prevent self harm and suicide. Evaluation of these initiatives can be challenging due to the low levels of suicide that occur within study samples. However, from the available literature there is some good evidence that:

- Among high-risk groups, psychotherapy can be effective in reducing suicidal ideation, attempts and repetition of suicidal or self harm behaviour;

- Among those with mood disorders or schizophrenia, drug treatments can be effective in reducing suicide attempts and deliberate self harm;
- Targeting local suicide hotspots and using safety fencing or signposting (to support services and helplines) can reduce levels of suicide in these locations;
- Multi-component community programmes that combine initiatives such as education programmes, health professional training and support services for those at risk can reduce rates of suicide; and
- Restricting lethal means can be effective in reducing suicides due to those means.

There is some limited evidence for the effectiveness of: i) school-based programmes that develop coping skills; ii) gatekeeper training when included in wider multi-component interventions; iii) helplines, when provided as part of suicide prevention centres; iv) contacting suicide attempt patients a short time after discharge from hospital, and v) guidelines on media reporting of suicide, in reducing levels of attempted or completed suicides and reattempts. However, the evidence base around these interventions needs to be further developed before any conclusions can be drawn. The effectiveness of school-based education and awareness programmes, media campaigns, training for health professionals and use of anti-depressants remains unclear, with further research needed in these areas.

All references are included in the online version of this document, available from:
www.preventviolence.info and **www.cph.org.uk**

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