When It Is Darkest
Why people die by suicide & what we can do to prevent it

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Introduction

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2 What Suicidal Pain Feels Like
3 Myths and Misunderstandings

Part 2 Suicide Is More About Ending the Pain Than Wanting To Die
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- Scale of the challenge
- Myths around suicide
- Integrated Motivational-Volitional (IMV) model of suicidal behaviour
- Warning signs that someone may be suicidal
- Asking about Suicide & Supporting those who are bereaved
- Conclusions
We conduct interdisciplinary research including experimental research, clinical and non-clinical studies as well as psychosocial interventions as we strive to understand and prevent suicide.

The Suicidal Behaviour Research Laboratory (SBRL) at the University of Glasgow

www.suicideresearch.info
“We cannot predict with much accuracy who will attempt suicide or when..it is essential that we continue to develop integrated multivariate psychological, psychosocial and clinical profiles of at risk individuals”

PhD in 1997
But then with autumn upon us, so breezy and cruel,

Clare left us in Paris, heartbroken and cool.

But we remember Clare’s grace, her beauty, her light;

Her kindness, her smile and sadness, its might.”

Section of a poem I wrote in December 2008
800,000 deaths by suicide globally each year

108 million potentially affected / knew the person who died

Globally, every **40 seconds**

*One* person dies by suicide

*20* people will attempt suicide

WHO (2020); Cerel et al. (2019); ONS (2020)
Biopsychosocial model of suicide risk

Social context: lack of social cohesion and environmental factors
- Geographical location
- Sociocultural norms
- Disruption to social structure or values
- Economic turmoil
- Social isolation
- Media reporting
- Access to lethal means
- Poor access to mental health services

Distal factors
- Early-life adversity
- Epigenetic changes
- Genetics
- Family history
  
  Lasting alterations to gene expression

Developmental factors
- Personality traits
- Genetic and epigenetic factors
  - Chronic substance misuse
  - Impulsive aggression
  - Negative affect
  - Cognitive deficits

Increased vulnerability to stress

Proximal factors
- Life events
- Psychopathology
  - Biological, psychological, genetic and epigenetic factors
  
  Depressed and dysregulated mood
  - Hopelessness and entrapment
  
  Acute substance abuse
  - Behavioural disinhibition

Thoughts about death
- Acts of self-harm with intent to die
- Death

Suicidal ideation (2.0–2.1%)
- Suicide attempt (0.3–0.4%)
- Suicide (10.6 per 100,000 population)

Gustavo Turecki*, David A. Brent, David Gunnell†‡, Rory C. O’Connor, Maria A. Oquendo, Jane Pirkis and Barbara H. Stanley

2019
### MYTHS ABOUT SUICIDE

1. Those who talk about suicide are not at risk of suicide.
2. All suicidal people are depressed or mentally ill.
3. Suicide occurs without warning.
4. Asking about suicide ‘plants’ the idea in someone’s head.
5. Suicidal people clearly want to die.
6. When someone becomes suicidal they will always remain suicidal.
7. Suicide is inherited.
8. Suicidal behaviour is motivated by attention-seeking.
9. Suicide is caused by a single factor.
10. Suicide cannot be prevented.
11. Only people of a particular social class die by suicide.
12. Improvement in emotional state means lessened suicide risk.
13. Thinking about suicide is rare.
14. People who attempt suicide by a low-lethality means are not serious about killing themselves.
Integrated motivational-volitional (IMV) model of suicidal behaviour

Predicting Suicide Attempts/Suicide over 4 Years

All factors significant univariate predictors

- Past S Atempt
- Suicide Ideation
- Depression
- Hopelessness
- Defeat
- Entrapment

O’Connor et al. (2013). *Journal of Consulting & Clinical Psychology*
Development of the 4-item Entrapment Scale Short-Form (E-SF)

Both classical & modern test theory methods applied to Gilbert & Allan (1998) 16 item Entrapment Scale

Clinical sample (n= 497) patients following self-harm

Population sample (n= 3457)

Correlations between the 4-item short-form and the 16-item full scale were nearly perfect:

0.94 for the clinical sample
0.97 for the population-based sample

De Beurs, Cleare, Wetherall, Byrne, Ferguson, O’Connor & O’Connor (2020). Psychiatry Research
The 4-item Entrapment Scale Short-Form (E-SF)

1. I often have the feeling that I would just like to run away
2. I feel powerless to change things
3. I feel trapped inside myself
4. I feel I’m in a deep hole I can’t get out of

De Beurs, Cleare, Wetherall, Byrne, Ferguson, O’Connor & O’Connor (2020). Psychiatry Research
I never thought he’d do it. A few weeks before his death, he had told me that he had thoughts about being dead, but I was too scared to ask him directly whether he would kill himself. I haven’t stopped asking myself why I didn’t ask him. Not a day passes when I don’t torment myself with this question. When I look back on it now, I just didn’t think he was the type of person who would kill himself. I know how ridiculous that sounds, but he was just always so full of life.
Suicidal Ideation & Intent

Access to means
Does individual have ready access to likely means of suicide?

Planning (if-then plans)
Has individual formulated a plan for suicide?

Exposure to suicide or suicidal behaviour
Has a family member/friend engaged in suicidal behaviour?

Impulsivity
Does individual tend to act impulsively / on spur of moment?

Physical pain sensitivity/endurance
Has the individual high (increased) physical pain endurance?

Fearlessness about death
Is individual fearful about death/has this changed?

Mental imagery
Does individual describe visualising dying/after death?

Past suicidal behaviour
Has the individual a history of suicide attempts or self-harm?

From Suicidal Thoughts to Suicidal Behaviour: Volitional Factors

Philosophical Transactions of the Royal Society B. 373: 20170268
Scottish Wellbeing Study: Differentiating Suicide Ideation from Suicide Attempts

- Representative sample of young adults (18-34 years) from across Scotland (n=3508)
- Three groups identified within the sample:
  - Controls with no suicidal history (n=2534)
  - lifetime suicide ideation (n=498)
  - lifetime suicide attempt (n=403)
- According to IMV model, volitional phase factors most important in differentiating IDEATION from ATTEMPTS

Wetherall et al. (2018). *Journal of Affective Disorders*
# Motivational Phase Factors (ideation)
- Defeat
- Entrapment
- Burdensomeness
- Belongingness
- Goal regulation
- Social support
- Resilience

# Volitional Phase Factors (attempts)
- Impulsivity
- Acquired capability
- Mental images of death
- Exposure to suicidal attempt of friend
- Exposure to suicidal attempt of family
- Exposure to suicide death

## Demographics and Mood
- Age and gender
- Ethnicity, marital status, economic activity
- Depressive symptoms

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<th>Demographics and Mood</th>
<th>Volitional Phase Factors (attempts)</th>
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<td><strong>ATTEMPTS significantly older and female</strong></td>
<td><strong>ATTEMPTS significantly higher than IDEATION</strong></td>
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Wetherall et al., (2018) *Journal of Affective Disorders*
Cortisol: the Stress Hormone
Cortisol reactivity and suicidal behavior: Investigating the role of hypothalamic-pituitary-adrenal axis responses to stress in suicide

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ABSTRACT

Every 40 s a person dies by suicide somewhere in the world. The causes of suicidal behavior are not fully understood. Dysregulated hypothalamic-pituitary-adrenal (HPA) axis activity, as measured by cortisol levels, is one potential risk factor. The current study aimed to investigate whether cortisol reactivity to a laboratory stress task differentiated individuals who had previously made a suicide attempt from those who had thought about suicide (suicide ideators) and control participants. One hundred and sixty participants were recruited to a previous attempt, a suicidal ideation or a control group. Participants completed background questionnaires before completing the Maastricht Acute Stress Test (MAST). Cortisol levels were assessed throughout the stress task. Measures of suicide behavior were measured at baseline, 1 month and 6 month follow-up. Participants who had made a previous suicide attempt exhibited significantly lower aggregate cortisol levels during the MAST compared to participants in the control group; suicide ideators were intermediate to both groups. This effect, however, was driven by participants who made an attempt within the past year, and to some degree by those with a family history of attempt. Participants who made a suicide attempt and had a family history of suicide exhibited the lowest levels of cortisol in response to stress. Finally, lower levels of cortisol in response to the MAST were associated with higher levels of suicidal ideation at 1-month follow-up in the suicide attempter group. These results are consistent with other findings indicating that blunted HPA axis activity is associated with some forms of suicidal behavior. The challenge for researchers is to elucidate the precise causal mechanisms linking stress, cortisol and suicide risk.
Collaboration: Then and Now
Effects of group on cortisol during the MAST (n=145)

Main effect of group for cortisol levels, p=0.02; AUCg, p=0.02, AUCi, p=0.04

Note: All analyses controlled for age, BMI, medication usage, time of day, smoking, & gender
What factors may explain the cortisol response in individuals vulnerable to suicide?
Suicide attempt history scored sig. higher on all scales compared to both ideators and controls.

Ideation group intermediate to the other two groups.

Ideation group different from controls on physical neglect (p<0.001), emotional abuse (p=0.038), and emotional neglect (p=0.058).

O’Connor, D., Green, J., Ferguson, E., O’Carroll, O’Connor, R. (2018) Psychoneuroendocrinology
Effects of childhood trauma on cortisol reactivity to stress (AUCg)

O’Connor, D., Green, J., Ferguson, E., O’Carroll, O’Connor, R. (2018) Psychoneuroendocrinology
From Thinking To Doing

Interventions to Interrupt the Transition from Suicidal Thoughts to Suicide Attempts
### Box 2 | Interventions for suicidal ideation and suicidal behaviour

#### Psychosocial

*Longer-term psychosocial interventions*
- Cognitive behavioural therapy
- Dialectic behavioural therapy
- Collaborative assessment and management of suicidality
- Acceptance and commitment therapy
- Mentalization
- Interpersonal psychotherapy

*Brief interventions*
- Caring contacts
- No suicide contacts
- Safety planning intervention
- Crisis response planning

#### Pharmacological

*Pharmacological agents with potential effect on suicidal behaviour*
- Lithium
- Clozapine\(^a\)
- Ketamine
- Selective serotonin reuptake inhibitors
- Buprenorphine

\(^a\)Clozapine is indicated in treatment of patients with schizophrenia who present with suicidal ideation.
Asking About Suicide

Active Listening

Show compassion

Be Direct

Build Trust & Collaboration

O’Connor (2021). *When It Is Darkest*
Be Trauma-informed.

The principles can be captured in five words:

1. Collaborate
2. Empower
3. Choice
4. Trust
5. Safety
Supporting people who are bereaved
Supporting people who are bereaved

- We are all unique, therefore someone’s experience of grief is unique.
- There is no set pathway through bereavement.
- Try not to tell someone how they should feel and, if you are bereaved, try to be patient if someone does, as they mean well.
- The pain of suicide loss can be felt acutely by those seemingly distant in relations from the person who has died (e.g., friends and colleagues).
- Feelings of grief can be overwhelming as well as being intertwined with moments of calmness.

O’Connor (2021). *When It Is Darkest*
Supporting people who are bereaved

- In the weeks and months following the death, it can be hard to predict the intensity of emotions. The only thing that is predictable is the unpredictability of grief.
- Feelings may range from anger to shock, guilt, shame, rejection, fear, loneliness, entrapment and stigma.
- Grief can affect someone physically, and may include palpitations, dizziness and headaches.
- Mental health can be affected, with people who are bereaved reporting depression, anxiety, post-traumatic stress and suicidal thoughts.
- In among the pain, some people report a sense of acceptance as their loved one is no longer suffering and it was their choice to end their life.

O’Connor (2021). *When It Is Darkest*
WARNING SIGNS THAT SOMEONE MIGHT BE SUICIDAL

Someone may be thinking of suicide if:

- They are talking about being trapped, a burden on others and feeling hopeless about the future.
- They have experienced loss, rejection or other stressful life events and are struggling to cope.
- They are sorting out their life affairs, such as giving away prized possessions or getting their will in order.
- There is an unexplained improvement in mood. This may be because they have decided that suicide is the solution to their problems.
- There are marked changes in behaviours such as sleeping, eating, drinking, drug-taking or other risk-taking behaviours.
- They have a history of self-harm or have made a previous suicide attempt.
- They are acting or behaving unpredictably or out of character.
Although we can never bring back those who we have lost, we can better support those left behind and, if we work together, we can save more lives. My ultimate hope is that, as a society, if we are kinder and more compassionate, both to ourselves and to those around us, then we will go some distance in protecting all of us from the devastation of suicide.