

A taxonomy of suicide

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Abstract

Objective: Suicide has been known in all peoples, in all countries across time. We are just emerging from a two-century era in which the official dogma was that all suicide was the result of mental disorder. The aim of this paper is to conduct a broad review and construct a taxonomy of suicide which will increase our understanding of the pathways to suicide, which will in turn assist in management of suicide. **Method:** We reviewed much clinical, psychological, sociological, philosophical and theological material. We constructed a taxonomy (a constellation of categories) and reviewed public records for accounts of suicide. We attempted to fit the public record cases to the taxonomy to test its legitimacy. **Results:** The public record cases fitted our taxonomy, establishing its legitimacy. Nine categories were identified, two featured mental disorder (1, psychosis; 2, non-psychotic mental disorder), and five featured precise loss (3, partner/family members; 4, fortune/assets; 5, status/reputation; 6, freedom; 7, physical health). In addition, one category (8) featured generalized loss/tedium vitae, and one (9) featured unexplained suicide. **Conclusion:** A taxonomy of suicide is presented which finally discredits the claim that all suicide is the consequence of mental disorder and assists in understanding and hopefully the management of suicide.

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Introduction

Suicide is the act of voluntarily ending one's life. There is a single outcome (death), but different pathways lead to this end.

Most Western philosophers from Socrates and the Stoics to the present time have supported the right to terminate one's life (Christensen, 2017). Saint Augustine (354- 430) a philosopher and theologian influenced Western Christianity to oppose suicide. However, the Bible contains details of seven people completing suicide and "voluntary death was one of the ideals on which the church was founded" (Dodge and Tabor, 1992).

In France, in the early 19th century, Esquirol (1821) promoted the idea that suicide was the result of mental disorder. This was adopted in Britain in the late 19th century (Wade, 1879). The idea strengthened, forming the dogma that all suicide was the result of mental disorder, which greatly inhibited our understanding of the range of pathways to suicide.

World Health Organization experts repeatedly stated 98% of those who complete suicide suffer from mental disorder (Bertolote and Fleischmann, 2002). This claim has been challenged (Shahtahmasebi 2005, 2014; Hjelmeland 2012; Pridmore 2011), and more recently, the World Health Organization (2014) dismissed that belief as a myth.

The current authors acknowledge that some suicide is a consequence of psychotic (disorganized and delusional) thinking and some is a consequence of non-psychotic mental disorders featuring inescapable low mood and other distressing symptoms. We contend – individuals without mental disorder who are living with painful/unacceptable and otherwise inescapable circumstances may complete suicide as the only available means of escaping their circumstances.

The aim is to conduct a broad review and construct a taxonomy of suicide which will increase our understanding of the pathways to suicide, which will in turn assist in management.

Method

We adopted a “post coding” and “re-coding” approach in which our review of clinical and non-clinical suicide literature could be coded into a set of categories. The categories were tested by re-coding suicides, i.e. by applying the categories to a sample of recorded suicides. We reflected on our many decades of clinical work. We reviewed much clinical literature (journals and textbooks) of the last two centuries. We reviewed psychological and sociological opinion (journals and textbooks). We reviewed philosophical and theological material. We reviewed public record material including newspaper records for the last 35 years and material obtained using electronic search engines and the words suicide, self-killing, hanged himself/herself, and killed himself/herself.

We experimented with categories and arranged those selected as follows:

Class A. Mental disorder suicide

1. Psychosis
2. Non-psychotic mental disorder

Class B. No mental disorder suicide

3. Loss of partner/family members
4. Loss of fortune/assets
5. Loss of status/reputation
6. Loss of freedom
7. Loss of physical health
8. Generalized loss/taedium vitae
9. Unexplained suicide

We tested this taxonomy by recoding recorded suicides in the public domain (newspapers and books).

Results

We found abundant support for this taxonomy – multiple examples for each category were in public domain material – often separated by thousands of years. Word limitations (and the tedium of repetition) limit the examples we can detail to two for each category.

Class A. Mental disorder suicide

1. Psychosis

The association between psychosis and suicide has been long established – in 381 CE, Timothy, the Bishop of Alexandria, stated prayers could only be said for those who completed suicide if insanity had been certified.

Consistent with psychosis influencing the performance of suicide – people with psychosis are 4-10 times more likely to commit homicide (Simpson et al, 2022).

1.1 Cleomenes I (c 489 BCE) had been a reasonably capable king of Sparta. However, his mental state deteriorated – “what had previously been mild derangement was now full-blown madness” (Herodotus 6:75). He was locked in the stock for his own safety. However, he badgered and threatened a guard who finally gave in to his request and gave him a knife. Cleomenes began to cut off strips of flesh off his body, he started on his lower legs and worked up his body – when he reached his abdomen “he cut that into strips as well – and so expired”. This was regarded as suicide, it was not fully understood, but was attributed by different groups to different political problems (Herodotus, 420 BCE).

1.2 Ms A’s full name is not provided in this paper as she was alive at the time of writing. Inclusion of her information is justified as she was injured, and her baby was killed in events designed to end both their lives (Cooper, 2021).

Ms A was a young married professional woman. She had given birth to her only child a few months previously. She lay her baby and herself on the tracks in the path of an oncoming train.

Ms A was described as a perfectionist. She was delighted to be pregnant, she exercised and read to prepare for her role as a first-time mother. The birth was difficult, but the baby was healthy. One-month post-partum Ms A told health staff she was not coping, and that she was teary and felt “out of control”. Friends and family offered reassurance, with little effect. The day before the fatal event Ms A told her husband she was having suicidal thoughts. However, 20 minutes before the event she sent a text to her mother and sister and telephoned her husband to indicate all was well.

In the days following the event various people came forward with additional information. It was learned Ms A had been hallucinating, hearing voices telling her that she was a bad mother, that she was “broken” and should take her life. She had delusions, believing her baby

had a negative view of her, and that she (Ms A) had injured the baby by rocking her bassinet “too vigorously”.

The evidence indicates Ms A was suffering post-partum psychosis and depression. She could present well but quickly descend into disorganized, deluded thinking. The psychosis led to her determined suicide attempt and the death of her daughter.

2. Non-psychotic mental disorder

Those working in mental health are aware of people who have suffered depression and other non-psychotic mental disorders who have completed suicide to end their suffering. Locating examples in the public media is a little complicated as we need accuracy, and we want very private information. Nevertheless, satisfactory examples are available.

2.1 Charmaine Dragun (2007) was engaged to be married, a 29-year-old newsreader for a leading Sydney television network. She jumped to her death from The Gap, a notorious suicide location. The Chief Executive Officer of the television network said, “Charmaine was a highly intelligent, vibrant and caring person, universally liked and admired by her colleagues”.

She had suffered major mental illness for 10 years. She was miserable at university and diagnosed with anorexia nervosa. She was then diagnosed with major depressive disorder and placed on antidepressants. She moved from her hometown (Perth) two years before her death to pursue her career, but felt lonely and longed to return. In the months before her death, she told her mother by telephone that she felt sad and worthless and was thinking of taking her life.

In the days before her death her psychiatrist was transitioning her from one antidepressant to another. The Coroner made inappropriate comments stating that if Ms Dragun had “been properly treated with a mood stabilizer she probably would not have committed suicide” (Anonymous, 2010).

2.2 Noa Pothoven, a Dutch female, was 17 years of age when she starved herself to death (2019) in a bed in her family’s living room (Wikipedia, 2022). International news networks claimed she had been legally euthanized, but this was incorrect. She had once applied for euthanasia but had been rejected. Her family finally agreed to her wishes to provide only palliation.

Ms Pothoven has been described as a “mental health advocate”. Her autobiography (English: ‘Winning or Learning’), which was published when she was 16 years of age was highly critical of the Dutch youth mental health services and caused questions to be asked in the Dutch House of Representatives.

Ms Pothoven stated she had been sexually assaulted at ages 11 and 12 at school parties. Postmortem, a written statement revealed the claim she had been raped by two men at the age of 14 years.

Ms Pothoven was admitted to hospital on at least 20 occasions following suicide attempts and the need for tube-feeding. She stated she suffered complex post-traumatic stress disorder,

anorexia nervosa, depression, obsessive compulsive disorder (OCD), and self-harm. A photograph (Anonymous, 2019) shows deep indurated cuts of 10-12 cm on a forearm which appeared to have been kept open by repeated cutting.

There is no evidence Ms Pothoven was psychotic. Two months before her death she wrote a guest article and poem for a university website, and she told her Instagram followers “my suffering is unbearable”.

Class B. No mental disorder suicide

It is conceded serious losses and other unpleasant events may trigger mental disorder, and in the setting of loss and unpleasantness it can be difficult to determine whether mental disorder has developed. However, many examples are available of human suffering which are not complicated by mental disorder ending in suicide. In many of the following examples the suicide occurs within a day of the triggering event – well before a mental disorder could emerge.

3. Loss of partner/family members

Plato (360 BCE) taught suicide as unacceptable, but noted some exceptions, including – when “it is compelled by extreme and unavoidable personal misfortune”.

3.1 Aegeus (1293 BCE) was the son of Pandion II, king of Athens, and became king himself. He had two childless marriages. He was briefly in Troezen and had a sexual liaison with Aethra. When it became clear Aethra was pregnant Aegeus buried his sandals, shield and sword under a huge rock and told her that when their son grew up, he should retrieve these items and take them to his father (by which he would be recognized). He then returned to Athens.

As an adult, Theseus exhumed his father’s belongings and went to him in Athens. At this point there were hostilities between Athens and Crete, and Crete was being terrorized by the Minotaur (a monster which lived on human flesh). Aegeus asked Theseus to go to Crete and (hopefully) kill the Minotaur. He also asked him to hang black sails when he sailed to Crete, but if he was successful, to hang white sails on his return. Theseus killed the Minotaur but was distracted by a new female companion and failed to change sails for his return journey.

When Aegeus saw the returning vessel had black sails, he concluded Theseus had been killed. He was so distressed by the loss of his recently revealed son he threw himself into the sea and drowned (this became the Aegean Sea).

3.2 Neil and Kazumi Puttick jumped to their deaths in 2009 in the 48 hours following the death of their only son, Sam. Neil and Kazumi (Japanese) had married in Tokyo 12 years previously. Sam was born 6 years later.

At 16 months of age, Sam became quadriplegic in a car accident. (Kazumi sustained two broken legs and a broken pelvis.) He needed constant ventilation and a motorized wheelchair. His parents gave up their employment and bought and greatly modified a farmhouse in Wiltshire, UK and a vehicle to accommodate Sam’s needs. Friends organized a website to raise funds and carers were employed around the clock. The family was extremely close.

Sam contracted meningitis. He was taken to hospital and treated but his condition was terminal. His parents were allowed to take him home and he died that night.

His parents wrote letters to their friends and supporters. Then they placed Sam in one rucksack and his favorite toys in another and drove 250 kilometers to Beachy Head, a well-known suicide site near Eastbourne (East Sussex). Neil carried the rucksack containing Sam's body and Kazumi carried the one containing his toys. From letters to friends, they stated how they wanted to end their lives together rather than live without Sam.

4. Loss of fortune/assets

Roman Emperor Marcus Aurelius (180) wrote, "If you are distressed by anything external... Why then, bid life a good-humored farewell" (Aurelius 1964/2005, p. 102).

4.1 Thierry Magon de la Villehuchet (2008) was a 65-year-old French aristocrat and financier. He was born in the magnificent, historic small port of Saint-Malo, on the English Channel coast. The Magon name appears on the Arc de Triomphe, which was commissioned by Napoleon in 1806.

Villehuchet earned an MBA at a leading Paris institution and moved to New York City when he was 39 years of age. He founded Access International Advisors (AIA) and provided financial advice and services. Unfortunately, he was caught up in a US\$50 billion fraudulent financial scheme (operated by Bernard Madoff) – he was financially ruined and so were many of his clients. He had no way to pay his staff and there were rumours of possible criminal charges.

One night he told the cleaning staff they must leave AIA offices by 7 pm. Concerned security staff went to check on Villehuchet, but found the doors were locked. He had taken an overdose of sleeping medication and cut his wrists (using a wastepaper basket to catch his blood) and was found deceased in the morning.

Claudine, his wife, was subsequently sued, as the sole beneficiary of his will. The evidence indicates Thierry Magon de la Villehuchet completed suicide as a means of dealing with the emotional stress of the loss of his fortune.

4.2 Adolf Merckle (2009) was a 74-year-old father of four who enjoyed skiing and mountain climbing. While maintain a low profile, he was the fifth richest man in Germany and among the 100th richest men in the world.

Merckle was described by business analysts as "very prudent, very cautious". He had spent his life building a business conglomerate with 100,000 employees – including a drug company, a cement factory, a metal foundry and a sugar refinery.

During a global financial crisis, he and his family made poor business decisions and were financially ruined. Merckle sought the assistance of regional government and was criticized in newspapers: "Will Merckle, the gambler of billions, be saved by the state?" He suicided by placing himself in the path of a train.

5. Loss of status/reputation

A complex area. The revelation that particular act/s has/have been committed may result in loss of public status/reputation (being identified as a paedophile is currently a common example) – the perpetrator is distressed because others have come to regard him/her negatively. The commission of such acts may also be associated with a private sense of guilt and loss of self-worth. These public and private consequences may co-occur and be difficult to disentangle. Interestingly, the private guilt and loss of self-worth may be containable until matters become public.

Plato (360 BCE) listed another exception to his boycott of suicide – when the individual “has had to suffer from irredeemable and intolerable shame” (Plato, 360 BCE).

5.1 Abimelech – was the name given to a series of Philistine kings listed in the Bible. Of relevance here is the Abimelech described in Judges 9, Old Testament. He was a disreputable person. He oversaw the burning to death of the people of Shechem and then attacked the city of Thebez (1854 BCE). The people retreated to a tower which he ordered to be burnt down. A woman threw a “millstone on Abimelech’s head, and crushed his skull” (Judges 9: 53).

Abimelech immediately told a young man, “Draw your sword and kill me, so people will not say about me, ‘A woman killed him’” (Judges 9: 54).

This transpired and his soldiers went home. In addition to the sexism of the time, this account illustrates how the loss of status/reputation was a trigger for suicide nearly four millennia ago.

5.2 Amanda Stapledon (2022) was a 58-year-old sole carer of a disabled adult son and a local government Melbourne council member. She had been a council member (at times as Deputy Mayor) for 12 years. She was also active in other community work – the founder and patron of clubs for the disadvantaged, and she had for many years hosted her own program on local radio. She was a Liberal Party state election candidate in 2014 (Johnston, 2022).

Ms Stapledon was one of a group of City of Casey councillors investigated by the Victorian Independent Broad-based Anti-Corruption Commission (IBAC) during a probe into allegedly corrupt land deals involving councillors and a property developer. Public hearings were held in 2019-20, with findings to be released in 2022.

During the hearings Ms Stapledon confirmed/admitted that in 2014 she failed to declare a \$25,000 contribution from the developer to her election campaign. She received a draft IBAC report in January 2022 and died by drug overdose three days later.

In the aftermath of the death there was criticism of the IBAC by those who had been investigated and their supporters. The IBAC conducts public examinations, and there were claims the inquisitorial style of proceedings caused unjustifiable suffering which triggered the suicide.

While the manner of investigation probably caused distress, the draft IBAC report stated that Ms Stapledon had accepted a significant bribe. When the final report was released there would be public disgrace. If criminal charges were brought there would be further publicity (and penalty) – it is probable the imminent public disgrace was the main trigger of this suicide.

6. Loss of freedom

Marcus Aurelius wrote, “but if men will not let you... (live according to your wants)...then quit the house of life” (Aurelius 1964/2005, p. 55).

6.1 Mohammad Ahmed Abdullah Saleh Al Hanashi (2009) was a single, 31-year-old citizen of Yemen. He joined the Taliban and was fighting in Afghanistan – at 24 years of age he was captured by United States of America (USA) forces, identified as a terrorist, and placed in the USA Guantanamo Bay detainment camp.

While some details are unavailable, an account of his suicide could be reconstructed. On at least one occasion Ahmad was chosen as the prisoner’s representative to speak to camp authorities. He was described as sociable and influential. He had instigated widespread hunger strikes.

In his last weeks, Ahmed was in the “Behavioral Health Unit”. (Here, when hunger strikers are dangerously underweight, they are twice daily strapped into special chairs and force fed.) In his last days he weighed 45 kilos and relied on crutches to walk. On his last night he took sleeping medication and died of “asphyxiation” – it is believed he tied a strip of clothing around his neck (the official autopsy report has not been released) (Melia, 2009). It would be reasonable to conclude Ahmed completed suicide because he found his loss of freedom (and associated circumstances) unacceptable.

6.2 Michael Marin (2012) was a 53-year-old divorced father of four, who lived in Arizona. Born in Rhodesia he graduated from Yale Law School. At the time of his death, he was a lawyer, financier, and millionaire.

He led a flamboyant life. He owned twenty Pablo Picasso etchings, he self-published books, owned and piloted a light aircraft, had summited the world’s seven highest mountains, and was a regular at the Burning Man festival.

He lived in a \$2.6 million mansion in Phoenix but could not keep up the payments. He made detailed arrangements, he set fires at four sites in the property.

He was charged with arson and was facing 16 years in prison if found guilty. When the guilty verdict was announced he placed a hand over his mouth and drank some water. Moments later he died in the courtroom of cyanide poisoning. Subsequently, friends and business associates opined he could not have tolerated loss of freedom and prison life.

7. Loss of physical health

Loss of physical health, particularly when there is physical pain, treatment is ineffective, and increasing disability and death lie ahead, has been a trigger for suicide for millennia. In such circumstances suicide has been approved by Socrates, Plato, the Stoics and other philosophers (Christensen, 2017).

This is a discrete specialised area. Voluntary assisted dying (VAD) which is available in most Australian and many USA states, and many countries around the world, caters for this problem.

7.1 Hercules (Greek mythology) was a demi-god, the son of Zeus, the king of gods, and a mortal female. He was famous for his strength, wisdom, and archery skills.

He went travelling with his second wife, Deianeira. When they came to the river Evenus they met the centaur Nessus, who offered to carry Deianeira across to the other side on his back. When they reached the other side Nessus tried to rape Deianeira, and Hercules shot the centaur with an arrow. As he was dying Nessus told Deianeira his blood had special powers and that she should take some. He said that if Hercules was ever losing interest in her she should sprinkle some on his shirt and this would rekindle his interest. [In fact, Nessus was taking revenge on Hercules.]

Later Hercules took Iole as his concubine. Deianeira put some Nessus blood on a shirt and Hercules put it on. Poison entered his body and burned him very painfully. He found he could not remove this shirt and so built a funeral pyre, lay on top and burned himself to death. Thus, this demi-god, famous for his strength and wisdom chose suicide to avoid physical suffering.

7.2 Jo Shearer (2002) was a 56-year-old former journalist of The Australian who had worked in war zones (McGarry, 2002). In her thirties she developed scoliosis (a painful twisting of the spine) and Sjögren's syndrome, an immune system disorder which features dryness of the eyes and mouth and is often associated with painful arthritis in many joints.

A month before she died by placing a plastic bag over her head Shearer spoke to The Australian – she told of her suffering and of her annoyance that euthanasia was not available (at that time). She said, “I have two fantastic kids, a nice house, great friends, a passion for learning foreign languages, and can afford to travel overseas. I have no other reason to die except this unbearable pain.”

8. Generalized loss/tedium vitae

This is a broad category. Tedium vitae (tired of life: Latin) indicates a mental state/attitude shaped by the general losses which accompany aging and the grinding difficulties of life. Ennui is a related term which indicates a listlessness and dissatisfaction arising from a lack of purpose or excitement. In such circumstances (and some others) it may be argued that suicide is “rational”, that is, appropriate/sensible. (The term rational is also applied in more explosive situations such as intolerable/unresponsive physical pain.) The observer is frequently said to “understand” the suicide from the completer's “point of view”.

8.1 Carolyn Heilbrun (2003) was born in New Jersey in 1926 – during her childhood she moved with her family to Manhattan, where she remained. She gained a PhD from Columbia University in 1959. She was the first woman to receive tenure in the English Department where she was employed for three decades. During her time in academia she complained of institutional “sexism”. She retired in 1993.

Heilbrun was a devoted wife and mother of three children, an academic, and a prominent feminist. She was also the author of fifteen mystery novels which she wrote under the pen name of Amanda Cross.

In addition to strongly asserting the rights of women, Heilbrun championed the right to self-determination (the right to choose the time and place of one's dying). She wrote that she planned to end her life on or about her 70th birthday. "Quit while you're ahead was, and is, my motto", she wrote. But she found her sixties to be more exciting than she expected and lived on.

Heilbrun ended her life at 77 years of age, taking sleeping medication and placing a plastic bag over her head. She left a note, "The journey's over. Love to all. Carolyn".

She was physically and psychologically well when she died. Her son stated that she "wanted to control her destiny" (Holt, 2007).

8.2 David Goodall (2018) was a distinguished 104-year-old scientist, when he ended his life in a Swiss assisted dying clinic (Oltermann, 2018). He was born in London and had family members across the world. He had worked as an academic botanist and ecologist, and a scientific book editor. He retired from full-time employment at 65 years of age but remained active in academia. He had worked at the Edith Cowan University (Perth) as an honorary research associate for two decades. When he was 102 years of age the university, concerned about his safety and ability to commute and their compensation risk, declared him unfit to attend campus. He successfully contested this claim, which he labeled "age discrimination".

With the passage of time his eyesight deteriorated, his ability to ambulate deteriorated and he began using a wheelchair. He was forced to give up driving and could not maintain his hobby as an amateur stage actor. He had a fall at home and spent two days on the floor before he was discovered. Doctors stated he needed 24-hour care or to move into a nursing home.

Dr Goodall noted his diminishing independence and stated that life stopped being enjoyable "five or ten years ago". He wanted to end his life. This was not legally possible in Australia – his supporters crowd-sourced his business class passage to a Swiss assisted dying clinic where he achieved that end. Dr Goodall had been a successful and happy man; in his last years he became progressively disappointed and exasperated by the struggles which life presented.

9. Unexplained suicide

All behaviour is motivated, but some motivation is not immediately obvious to the observer. This may apply in suicide – sometimes because of the limited information released by the completer – and many of us place a very high value on our privacy. And, the human experience is very complex, with social, psychological and physical factors needing to be gathered, ranked and explained.

9.1 Anthony Bourdain (2018) was a 65-year-old Manhattan born, divorced, father of an adult daughter. Of French heritage, he was a person of enormous ability who had been enormously successful.

Bourdain was a celebrity chef who had operated leading restaurants and written and performed in numerous television documentaries – these dealt not only with food, but with many aspects of culture, travel, history and humor. He had written many books, not only on food, but also fiction and non-fiction history. He was also highly skilled in Brazilian jiu-jitsu

(a martial art) – winning a gold medal in an international championship in New York, in 2016.

While filming a documentary with friends in a medieval village in France, he hanged himself with a dressing gown cord. His autopsy revealed no illegal drugs or additional signs of violence. His friends could give no explanation and his mother of 83 years stated, “He is the last person in the world I’d imagine to do something like that”. The then-US president Donald Trump expressed admiration and condolences; the former president Barack Obama spoke of his contributions to society. We have no explanation for his suicide.

9.2 Paul Green (2022) was a 49-year-old married man with two children. He had played 162 games in first-grade rugby, had been a highly successful rugby coach and was revered in the sport. He was a graduate of the Harvard Business School; a voracious reader, he flew helicopters and played the piano and violin.

One morning when his wife returned from the gym, she found he had completed suicide (method undisclosed). She stated, “Paul wasn’t depressed, showed no signs of mental health issues and his family was everything to him.”

One friend came forward and claimed Green had been confiding mental health issues for 18 years – this was not substantiated.

It was then revealed neuropathologist Associate Professor Michael Buckland had examined Green’s brain and found advanced chronic traumatic encephalopathy (CTE). He reported CTE is progressive and may lead to “impaired judgement, lowered tolerance and impulsive behaviour” (Halloran, 2022). CTE has been associated with suicide in other sportspeople. The full picture may not always be available.

Discussion

This study is a qualitative exploration of half a century of clinical observations and extensive examination of suicide literature. The exploration suggests a minimalist approach to suicide research. That is, when suicide cases do not fit into a mental illness category then suicide is broken down into smaller groups with an intermediary mental illness link (Shahtahmasebi 2009). For example, associating suicide by students to depression due to living away from home and pressures performing well in of exams; or associating suicide by LGBTQ people to depression and the trauma of not fitting in society; or associating suicide by farmers to depression due to financial pressures and an inability to confide, possibly due to their rural living.

The qualitative exploration of suicide allowed us to review and evaluate the literature independently but inclusive of mental illness in order to identify common themes. We have identified a set of repetitive themes thus forming a taxonomy of suicide.

The presented taxonomy commences with the observation that suicide may be the result of psychotic experience and thinking (disordered in form and content) and goes on to suicide as a consequence of non-psychotic mental disorder such as intractable depressed mood and other disorders such as OCD – disorders which cause great suffering and may be resistant to treatment (thus, suicide brings certain relief – with the obvious negative aspects for both individuals and friends/family).

We then move to four (no mental disorder) sets of unpleasant circumstances involving loss (of partner/family member; fortune/assets; status/reputation; freedom; physical health). A complication is that severe psychological trauma such as loss of a partner or fortune/assets may trigger reactive depression or other psychopathology including anxiety disorder. We hope to make the point that profound losses may lead to suicide (as an escape mechanism) - but the picture may become complicated if a reactive mental disorder is developed (was it the loss or the subsequent mental disorder which triggered the suicide?). Close examination reveals that many suicide within a day of the loss (before the reactive mental disorder could have emerged). An example, Pyramus and Thisbe lived in Babylonia, they were the first recorded suicides. They were lovers who planned to meet in a park. Pyramus arrived early – he mistook the situation and assumed Thisbe had been killed and carried off by a lion, and immediately killed himself. Thisbe then arrived, found the body of her lover and completed suicide herself. Thus, both were deceased before mental disorder could have complicated matters. On the other hand, in some suicide cases, mental illness may be a symptom rather than a cause of suicide due to the process of deciding death as a solution to one's problems. In other words, the torment of persuading oneself to accept an unwanted/undesirable solution (suicide) is highly likely to lead to emotional and mental conflicts.

We have sought to simplify (keep separate) the experiences and responses of individuals struck by unpleasant events. However, an unpleasant event may lead to a range of emotional responses, and the occurrence of one unpleasant event may lead to another.

In earlier work we detailed the suicide of 20 apprehended paedophiles (Walter and Pridmore, 2012) – there have been many since, including the celebrity millionaire, Jeffrey Epstein (who died in 2019). It is probable that being charged with a criminal offence, in addition to threatening one's freedom, would bring public disgrace/loathing and reduced business and social opportunities. For the individual experiencing some guilt/low self-esteem, public disgrace would likely amplify that experience. And then, it is known that different individuals find the impact of different losses to be different. We know that in the aftermath of divorce, one individual may be enervated and another invigorated.

We also describe suicide being triggered by more generalized losses. Examples include those associated with aging, failing eyesight and a decreasing pool of friends and associates. Tedium vitae (tired of life) has been used in this (and other mental) states in which the individual reports being 'fed up' rather than acutely distressed.

Rational suicide is offered as a descriptor of a considered response to persistent, unpleasant circumstances. Some argue there is a distinction between suicide and voluntary assisted dying – but, when the individual triggers the lethal device which ends a dragging, painful, unresponsive illness, there is no distinction. With the passage of time cultures change – voluntary assisted dying is now available to people suffering loss of physical health in many parts of the world.

Some suicides remain unexplained (justifying a dedicated category). The lack of explanation may arise as insufficient information is available for a precise designation to be reached. Individuals have a right to privacy – this applies to those who complete suicide and to their friends and family, and must be respected. In the case of Paul Green (8.2, above) relevant information was not known in the period immediately following the death – it was only when

neuropathologists had the opportunity to examine the deceased's brain that evidence of severe injury, which almost certainly influenced his behaviour, was discovered.

The role of anger in suicide remains to be clarified. Clinicians report that non-suicidal cutting can be an expression of anger against both the self and others. Clinicians occasionally speculate that a particular suicide may have been an aggressive act directed toward others (Yara et al. 2022, Ha et al. 2021, Barker 2022); further details are awaited.

There are many accounts of mass shooters (murderers) who have ended their activities by killing themselves. For example, Larry Gene Ashbrook a 47-year-old unemployed man killed seven people and himself in a Texas church (Kolker and Hart, 1999). As a young person he was forced to go to church by his parents. Before he went on his rampage, he smashed his home (on the opposite side of the street to the house in which he grew up) to rubble. While he was shooting parishioners, he was shouting insults against the church and the churchgoers (with none of whom he was acquainted) and was in a state of extreme anger.

Mass shooters who kill themselves are likely to be experiencing anger. How frequently anger is a motivating factor in these crimes is unclear. It is not known if the suicides of these people are an expression of anger, a means of escaping the consequences of their homicidal actions, or both. It is probable, of those individuals who kill only themselves, some are angry and some are not. There are many pathways to suicide.

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