J Public Health (2017) 25:123–134
DOI 10.1007/s10389-016-0768-x

REVIEW ARTICLE

Suicide: a concept analysis

Jerry Ngwena[1] · **Zaid Hosany**[1] · **Irrah Sibindi**[1]

Received: 11 March 2016 / Accepted: 28 September 2016 / Published online: 19 October 2016

Abstract
Background Suicide is a national and global phenomenon with its rate increasing every year inspite of clinicians, policy makers and researchers grappling with suicide prevention and investing heavily in risk assessment, prevention and reduction. There seems to be a gap in the understanding of suicide and its associated behaviours.
Aim The aim of this review was to undertake a concept analysis of suicide and behaviour.
Method The Walker and Avant eight-step method was adopted. Search engines including Academic Search Elite, CINAHL, Ovid Online embracing Embase and Ovid Medline were utilised to access articles published in the last 10 years, written in English, with abstracts and full text.
Results The concept of suicide require understanding of implicity and explicity of suicidal intent and how these relate to suicide behaviour. Areas of risk assessment such as thwarted belongingness and perceived burdensomeness should be considered. Associated with suicide are internal and external hazards, which tend to create vulnerability leading to suicidal behaviour. Clinicians should differentiate between suicide in the presence of mental illness and when there is a predicament. Risk assessment tools should not be taken as absolute as they do not provide 100 % detection of intent.
Conclusion Understanding the concept of suicide would help clinicians comprehend their patients and suicidal behaviour and improve intervention methods.

Keywords Suicide · Suicide behaviour · Risk assessment · Intent · Deliberate self harm · Concept analysis

✉ Jerry Ngwena
Jerry.ngwena@uwl.ac.uk

Zaid Hosany
Zaid.Hosany@uwl.ac.uk

Irrah Sibindi
Irrah.sibindi@uwl.ac.uk

[1] University of West London, Paragon House, Boston Manor Road, Brentford TW8 9GA, UK

Background

Suicide is both a global and national phenomenon. In the UK, these figures, as indicated by the Office of National Statistics (ONS), are generally increasing, with 5,981 in 2012, 6233 in 2013 and 6581 in 2014 (ONS 2015). In both males and females the difference in rates has remained constant at three times higher for males than females. The ONS figures (rates of male suicide per 100,000 population) have remained disappointingly comparable in 2009 (17.5), 2010 (17.0), 2011 (18.2), 2012 (18.2), 2013 (19.0) and 2014 (16.8) (19.0 being the highest since 2001 at the onset of data collection with 16.6 per 100,000 in 2007 being the lowest). Such statistics are a cause for concern and as such clinicians and policy makers grapple with suicide prevention measures and invest heavily in risk assessment to achieve the goal of suicide prevention and reduction (DOH 2015). Researchers have equally invested time and money in trying to understand suicide and suicide behaviour. A dearth of research (Ngwena 2014) is evident in relation to the causes of suicide, prevention, risk assessment and management, yet more people are dying from suicide. In England, key documents at the national and local levels have been produced to help identify those at risk of either self harm or suicide with subsequent management plans on prevention (DOH 2015). In spite of these measures, the rate of suicide occurring within a week of discharge stands at 50 % (Bickley et al. 2013) with 49 % doing so 2 weeks before their initial appointments. Given the above, it can be justifiably assumed that

there is an incongruence between the perceived low risk of suicide at the point of discharge and the actual risk or intent of suicide.

The term suicide refers not to a single action but more broadly to a great many varied behaviours. These may include talking of suicidal thoughts, intentions, ideation, gestures, attempts, completions or equivalents. Thus far, no single term, definition or taxonomy has served to sufficiently represent the complex set of behaviours that has been suggested as suicidal. Indeed, as indicated by Silverman et al. (2007) in the field of suicidology, there is no single common accepted definition of suicide. A standard set of terms and definitions is greatly needed to advance the science of suicidology and aid the communication and understanding of suicide. To achieve this, it is perhaps necessary to explore the concepts or what constitutes suicide. In this aspect, concept analysis helps to clarify overused vague terminologies, promote mutual understanding among contemporaries and provide a precise operational definition that by its very nature has construct validity and accurately reflects its theoretical base in order to help in the development of a diagnosis or intervention. A number of theories have been put forward in the explanation of suicide (Durkheim 1951; Shneidman 1985). Few however have discussed possible causal pathways (Cornette et al. 2000).

This article aims not only to add to the current debate on suicide but also to contribute to a new dimension of understanding the concept of suicide, suicide behaviour and interventions.

Method

Walker and Avant's (2005) concept analysis was employed. This involves selecting a concept (suicide), defining the aims or purpose of the analysis, determining the usage of the concept, ascertaining the defining features/attributes, creating a model and contradictory cases, establishing precursors/antecedents and consequences/concerns and describing research/practical tools that would enable the detection of suicide.

Relevant databases including Academic Search Elite, CINAHL, Ovid Online embracing Embase and Ovid Medline were used to access articles on suicide and suicidality, written in English, with abstracts and full text. Key words included suicide, suicide behaviour, risk assessment, self mutilation, intent, death and deliberate self harm.

Identifying the uses of a concept

Oxford dictionary (2015) defines suicide as an action of killing oneself intentionally (www.oxforddictionaries.com). The Merriam Webster Online Dictionary (2010) describes it as an act or instance of taking one's own life voluntarily and intentionally especially by a person with years of discretion and of sound mind. Pridmore and Jamil (2009) provided two theoretical models of suicide concerning both suicide due to a psychiatric disorder and that occurring in the absence of a psychiatric disorder. It is the latter where rationality (sound mind) might apply when considering attempted or completed suicide. Other definitions include the act of deliberately ending one's own life (Nock et al. 2008) and an act of fatal outcome in which the victim is aware of the potential fatality or intended changes to end his/her life (De Leo et al. 2004). As indicated by these definitions, there are some inconsistencies that point towards differences in understanding suicide or suicide behaviour.

A better understanding of suicide is one that aims towards unambiguity in relation to the intended end result. To achieve this aim, Crosby et al. (2011) strove towards a uniform understanding by indicating that a uniform definition of self-injurious behaviour can be stated to be a behaviour that is self-directed and deliberately results in injury or potential injury to the self. It is viewed to have two elements: non-suicidal and suicidal acts. A non-suicidal act is one that is self-directed and deliberately results in injury or potential injury to oneself. In this category there is no implicit (*that which is without doubt or reverse, implied though not directly expressed; inherent in the nature of something*) or explicit *(that which is fully revealed or expressed without vagueness, implication or ambiguity; leaving no questions as to the meaning or intent*) suicidal intent. Adding to this understanding, Oquendo et al. (2007) suggested that a non-suicidal act is deemed to be a non-fatal self-directed potentially injurious behaviour without any intent to die as a result of the behaviour. It however may or may not result in injury. A suicidal act on the other hand is seen as one that is self-directed and deliberately results in injury or potential injury to oneself. Here, there is clear evidence of a deliberate self-injurious act, whether implicit or explicit, of suicidal intent. Understanding suicide or suicidal behaviour therefore depends on the implicit or explicit suicidal intent. Following this line of argument, Sun (2011) asserted that it is the concept of the implicity or explicity of suicide that requires a deeper understanding. Three key areas help with this understanding: suicide-related communication, suicide-related behaviour and suicidal ideations.

(1) Suicide-related communication is where acts such as preparation may occur. For instance, the person may verbalise thoughts of suicide, plan a method of suicide such as assembling the necessary materials (buying a gun, tablets/pills or rope, writing a suicide note or giving away possessions). Sun (2011) argued that it is an interpersonal act of informing, conveying or communicating thoughts, desires, wishes or the intent of suicide. The act of communication is not in itself a self-inflicted or self-injurious behaviour per se, but rather communication of plans and intent of suicide.

(2) Suicide-related behaviour encompasses self-harm, attempts and completed suicide (Silverman et al. 2007). The behaviour is seen as one that involves self-inflicted injury, potential injurious behaviour for which there is evidence that the person has the intention to inflict injury (explicit) or that for which there is undetermined evidence that the person intends self-harm (implicit). Potential outcomes of suicide-related behaviour fall into two categories: type 1, a suicide attempt (no injury), and type 2, injury. We argue for a third category that incorporates fatality.

(3) Suicidal ideation is where an individual may contemplate suicide but does not necessarily engage in the above-described behaviours and hence there is no implicit or explicit intent of suicide. Suicide ideations should be regarded as significant (Nock et al. 2008) as they are indicative of early warning signs and may at a later stage lead to self-injurious behaviour.

Defining attributes

Walker and Avant (2005) reported that the — attributes of a concept are those that appear repeatedly. In this aspect, the concept of suicide has the following recurring attributes: hazard—external or internal, internal crisis, absence of coping mechanisms, absence of external support/significant others, suicidal intent and lethal act.

Hazards

A hazard (Sun 2011) is an instance in the life of an individual that encampass actual or probable danger to the person's function. A hazard may be an external or internal stressor whose impact on the individual depends on how well or poorly equipped they are in dealing with the threat. Where the stressor is overwhelming and in the absence of positive coping strategies, contemplation, suicide attempt or completed suicide may be the result. External stressors include the physical environment, employment (for instance, lack of or inability to cope following job loss, reduced income level), trauma (psychological), injury (physical), poor work conditions (bullying, harassment, intimidation, discrimination), relationships with others, home environment [domestic violence, sexual abuse, poor relationships, unemployment, financial problems (debt), homelessness, drug and alcohol addiction], overwhelming challenges, difficulties with unmet expectations/thwarted ambitions, loss through separation or death of loved ones, divorce, role change, rape and mental illness.

Internal stressors on the other hand originate from inside individuals and define the body's capability of responding to and dealing with external stressors. They include nutritional status, attitudes, thoughts, feelings of anger, fear and worry, anticipation, imagination, memory, locus of control, vulnerability, overall health and fitness levels, and emotional well-being (see Table 1 below). Managing stressors and avoiding suicide attempts or completed suicide involve making changes in the external or in internal factors that strengthen the ability to deal with adversity (Nock et al. 2008).

Hazards can lead to what Sun (2011) refers to as an internal crisis, the effect of which is often seen as signs and symptoms manifesting as somatic (stomachache/upset, headache, fatigue, apathy, loss of appetite, lethargy) or psychological distress (anxiety, fear, anger, hostility, loneliness, a sense of hopelessness, worthlessness, sadness and depression). The relationship between hopelessness and suicide has been investigated at

Table 1 Suicide risk factors (internal and external hazards)

Previous attempted suicide
Family history of suicide
Negative view of the future
• Feelings of helplessness
• Feelings of shame and guilt
• Perceptions of and plans for the future
Mental health illnesses
• Depression (clinical depression is associated with suicidal ideation)
• Hallucinations (hearing voices commanding to self-harm or persecution, alcohol and drug use)
• Psychopathology
• Substance misuse
Social issues
• Social isolation (withdrawal, loss/ lack of social support)
• Socio-economic climate—recession has led to a rise in suicide rates among men
• Unemployment
• Family factors, e.g. environment, divorce
• Academic disengagement
Behaviour warning of suicidal intent, e.g. procuring means of death, acts in anticipation of death, acts of anticipation of death, putting financial affairs in order, general behaviour of planning suicide
Current stressors, e.g. recent bereavement (especially crucial significant other—partner), relationship difficulties, stressful events, financial problems, terminal illness, accommodation issues
Abuse
• Child abuse, domestic abuse (all forms of abuse at all ages)
• Substance misuse including alcohol
• Internet use
• Bullying
Media coverage 'with a copycat effect' especially of a political figure or entertainment celebrity; media coverage should change
Ageism may lead to oversight
Loneliness and influence of alcohol on people who are single, widowed, separated

length (Beck et al. 2006) with its recognition as a high predictor of suicide.

As previously indicated, Pridmore and Jamil (2009) presented a two-model hypothesis of suicide vis-à-vis the predicament and suicide pathway model (see Fig. 1 for the predicament model). The predicament model decribes two kinds of suicide, that which is due to the presence of a psychiatric disorder and the other in the absence of the disorder. Although both can occur independently, they are not mutually exclusive as they can coexist. In their argument, a predicament is an unpleasant situation in which one sees no positive outcome or has limited options. The cause can be either external (environmental) or internal (mental disorder), or both (see Table 1 above). The suicide pathway model assumes the presence of a mental disorder as the causative factor. More specifically, Ishii et al. (2014) asserted that those diagnosed with schizophrenia or schizo-affective disorders are prone to suicide with risk factors identified as difficulty dealing with management or coming to terms with the illness (fear of mental disintegration), poor adherence to medication, agitation or motor restlessness, presence of hallucinations and delusions and physical illness. Along the same line of reasoning, Chapman et al. (2015) suggested that there is a strong association of suicidal ideations/intent and later suicide in those diagnosed with either schizophrenic spectrum disorders (schizophrenia, schizophreniform or delusional disorders) or mood disorders (depression, dysthymia, bipolar disorder).

The concept of the risk suicide ladder (Pridmore and Jamil 2009) ranges from 0 (no risk) to 10 (threshold at which suicide is completed). In the ladder, an assumption is made that all individuals have baseline suicidality (IBS, individual baseline suicidality), the intensity of which differs from person to person. It is determined among other things by the past experiences, personality, genetic endowment, culture, gender, long-term social shortcomings and locus of control as indicated by Evans et al. (2005) (see also the interpersonal theory below). The momentary position (MP) depicts the suicide risk of an individual at any given time. With a hazard impact (HI), risk factor (RF) or stress impact (SI) on the MP the ladder shifts towards the suicidality/threshold. Because the HI, RF or SI differs from person to person, the shift towards the threshold will be dependent upon individual characteristics such as impulsivity, neuroticism, acute intoxication and aggression, among other factors. A high IBS, severe stressor impacting on an individual can lead to a high SI or HI resulting in a shift towards the suicidality threshold.

In other areas such as the risk of suicide behaviour including suicide and suicide attempt, as well as self-harm, Robinson et al. (2009) indicated gender as being significant, with the male rate of suicide being higher than that of females. The male-female differences may be due to males being higher achievers compared to women, making them vulnerable at times of unemployment or changed socioeconomic circumstances (Ngwena 2014). These differences may also be a result of different expectations and coping strategies. For instance, males

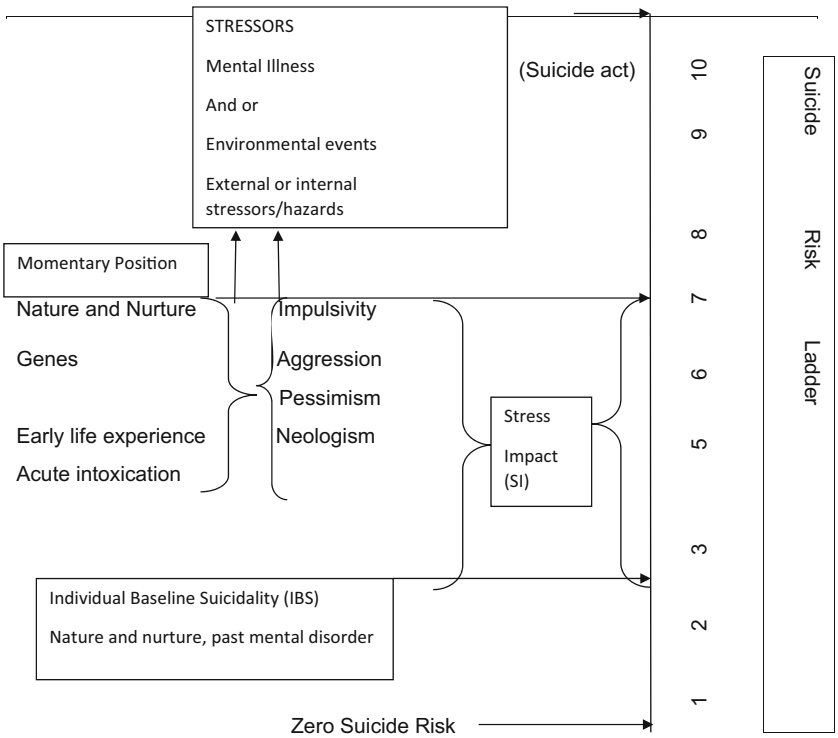

Fig. 1 The predicament model of suicide. Adapted from Pridmore & Jamil (2009)

tend to use alcohol and drugs as part of coping strategy/mechanism when faced with stressful events and generally have greater access to violent means (Pridmore and Jamil 2009). Indeed, as argued by Pompili et al. (2010), alcohol abuse leads to suicidality via disinhibition and heightened impulsiveness thereby enabling the probability of suicidal behaviour following a conflict or dissatisfaction and impaired judgement. In addition, alcohol may lead to depression or psychosis, which at a later time leads to suicide behaviour or complete suicide. Drug use would equally have a significant effect on the mental state as it is strongly associated with the development of psychosis.

The foregoing discussion focussed on suicide associated with the presence of mental illness or that which is induced by drug or alcohol misuse. In some cases, suicide can occur in the absence of a mental disorder [non-mental disorder suicide (Maseko and Patel 2009)], though may be conceptualised as such. This is termed medicalisation. Pridmore and Jamil (2009) indicated the medicalisation of social issues as the practise of viewing non-medical problems in medical terms, generally as an illness or disorder. This results in 'normal' human behaviour and experience, being labelled as a medical condition(s). Considering the WHO definition that associates health with well-being, it is for instance not uncommon for anguish/distress to be diagnosed as depression. For instance, Horwitz and Wakefield (2007) discussed how normal sorrow has been turned into depressive disorder. Given these assertions, it can be suggested that non-mental disorder suicide encompasses instances where distresses caused by hazards are labelled as psychiatric conditions. It is this understanding that needs to change among health professionals if an accurate diagnosis is to be made and patients helped/assisted accordingly.

In the labelled pathway suicide, distress is the central theme or driver. Suicide may occur in one of three ways: (1) mental disorder suicide: where suicide occurs as a direct link to a mental disorder; (2) medicalisation suicide where suicide occurs in the absence of a mental disorder but the distress has been labelled a mental disorder; (3) non-mental disorder suicide where there is no mental disorder or incorrect claim of a mental disorder—the individual carries out suicide to escape a predicament or an unpleasant situation (see Fig. 2).

Absence of coping strategies

Coping strategies are employed as a reaction to psychological stress which is usually triggered by changes in one's environment. They involve ways in which individuals deal with stressful situations encountered both within themselves and the outer world. The focus of coping strategies is to maintain emotional, psychological and physical well-being. Coping strategies fall into two categories: adaptive (positive) and maladaptive. Weiten et al. (2009) identified adaptive coping strategies as: (1) problem solving/focussed/instrumental coping. This focuses on ways to tackle the issue(s) at hand thereby reducing stress levels; (2) an emotion-focussed coping strategy where an individual releases pent-up emotions and distracts themselves by engaging in an activity; (3) appraisal focussed, where an individual challenges their own assumptions and alters their goals and values accord-

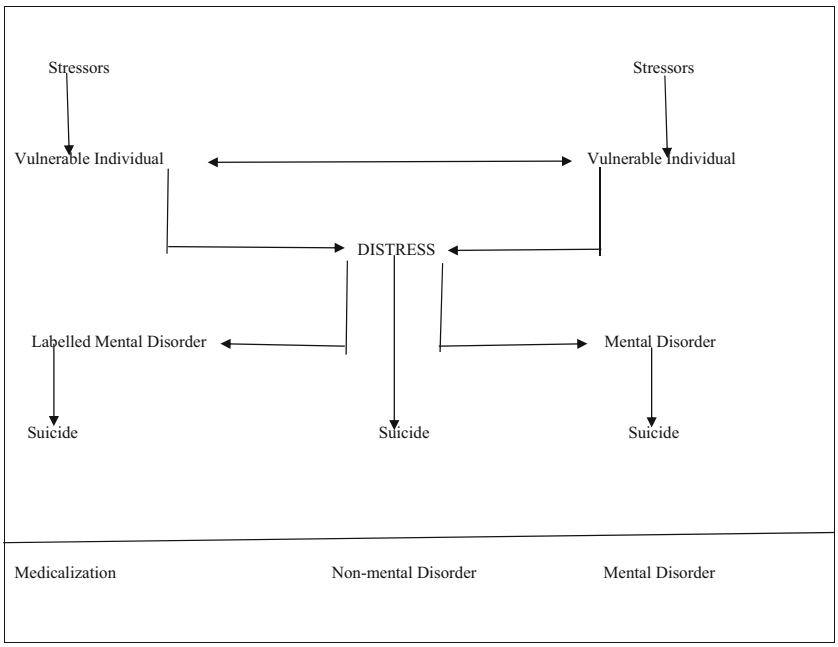

Fig. 2 Labelled pathway of suicide. Adapted from Pridmore & Jamil (2009)

ingly. Maladaptive coping strategies on the other hand involve engaging in behaviours that can only escalate an already stressful situation (Sun et al. 2007). It is often employed in the absence of an adaptive coping strategy(ies). An individual may for instance engage in self-harm behaviour that includes homicide, suicide attempts, suicide, alcohol, drug taking and overdoses.

Significant others

A significant other is an individual (or individuals) who plays a key role in one's life and helps maintain their psychological well-being. This balance (Sun 2011) is achieved by giving support and reassurance. Significant others generally add to one's quality of life and well-being. It has been identified that the absence of significant others can adversely affect individuals' well-being. For instance, early loss of a significant other has long been associated with attempted suicide. However is not just the absence of significant others that can have an influence on suicide; if present, the quality of this relationship is significant too. Joiner (2005) argued for the way in which dysfunctional family and peer interactions could be good predictors of attempted or completed suicide. In addition to family members, significant others may be a person from church or religious group/organisation or a guardian. Though they may offer source(s) of support, socialisation and integration, what is key is the quality and value of the support.

Religion and culture are viewed in the way in which they may have a positive or negative influence on mental state, suicide behaviour and suicide (Koenig 2012). This could perhaps be due to religion offering psychological stability. It could for instance be used as a coping mechanism at times of stress (Wang et al. 2013), capital building/social networking via religious communities (Langille et al. 2012), ritual bringing people together, particular lifestyle (behaviours such as altruism and charity or abstaining from excessive alcohol and drugs) and empowerment.

Though these factors may offer protection against suicide among religious groups (Koenig 2012), others have indicated an association of religion and suicide (Zhang et al. 2011). In their meta-analysis, Wu et al. (2015) supported the protective nature of religion but noted that the protective factors are significant in older adults compared to younger ones. The likely explanation, they argued, could be due to community loss, leaving careers, friends/family dying and children leaving home. Religion then become a larger part of their life as it brings hope and provides an identity. As health deteriorates with age, reliance on religion offers a route to a better coping mechanism in the face of adversity (see the predicament model above). These assertions are consistent with the loss theory (Yan 2003), which specified the progression of life as naturally experiencing continuous loss of health, social position, relatives, friends and purpose of life. Where indicated, the would be be to identify an individual's religious affiliation and seek support from their group directly or via chaplaincy, family or significant others.

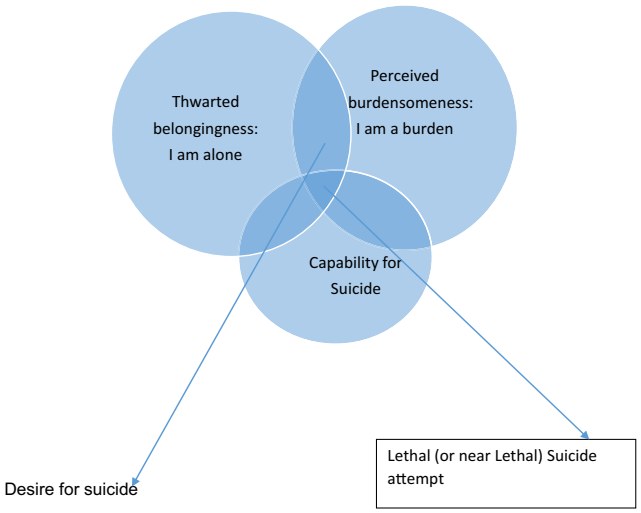

Fig. 3 Thwarted belongingness and burdensomeness. Adapted from Van Orden et al. 2010

Society and culture play a great role in influencing how service users respond to and view mental health and suicide. Culture influences the way in which people describe and experience mental health and mental illness, their ability to access care, the nature of the care they want, the value of the collaboration/communication between professionals and the response to intervention and treatment. This has significant implications for treating those belonging to different racial, ethnic and cultural groups. Cultural variables have a far-ranging impact on suicide as they shape risk and protective factors as well as the availability and types of treatment or interventions that might be used to lessen suicide. In a study of black and minority ethnic groups, Ngwena (2014) discussed the influence of cultural background in determining suicidal behaviour and completed suicide. Black and minority ethnic groups are for example less likely to receive specialist help and view health professionals as those who do not understand their culture/needs and are by extension less likely to seek help with the subsequent deterioration of their conditions. Culture as such influences all aspects of an illness, the pattern of coping, seeking help and responses, adherence to treatment, methods of emotional expression and communication. Edge and Rogers (2005) for example explained in their study how the cultural background of pregnant black women, of being strong and not admitting a weakness influenced self-harm and attempted suicide. Similar studies have been reported by Bhui and Mackenzie (2008). Understanding the cultural differences and background therefore forms an important aspect of understanding suicide and its prevention.

Figure 3 above depicts two variables that are considered risk factors for suicide: isolation and burdensomeness. Isolation is one of the strongest and most reliable indicators

of suicidal ideations, attempts and lethal suicide behaviour that transverses the life span (Van Orden et al. 2010). Belongingness is an observable human factor that in its absence depicts an indication of an unmet need. The unmet need (thwarted belongingness), as is argued, produces a psychological need that if not met leads to suicidal ideations. Indeed, as Joiner (2005) and Van Orden et al. (2010) pointed out, a perceived unmet need to belong and belief that one is uncared for (thwarted belongingness) can enhance suicidal behaviour. This could emanate from either lacking a social network or feeling that one is not connected to the existing social network (see Fig. 2). Burdensomeness involves perceived dependency on significant others. By the very nature of society, one would be dependent on family members or friends for instance if they are unemployed or unwell. This dependency can create a sense of burdensomeness that if elevated can lead to suicidal ideations/self-harm/suicide. Indeed as depicted by Van Orden et al. (2010), perceived burdensomeness is a creation of an affective-laden construct of self-hate observable in low self-esteem, self-blame and shame—all powerful indicators of suicidal ideations/acts. Taking this into account, mental health professionals attending to those with suicidal intent must not only enquire about the absence of significant others, but also about the quality of the relationship where significant other(s) exist.

Suicidal intent

Suicidal intent is defined as the seriousness or intensity of the patient's/individual's wish to terminate his or her life. It is a complex construct with two major elements: (1) objective planning: the level of planning and forethought preceding the act of suicide; (2) perceived intent: the intended outcome and perceived lethality of the act. Conner et al. (2007) asserted that although objective planning and perceived intent have interconnectedness, they are not mutually exclusive. For instance, a low-level planned act of suicide might be combined with high perceived intent. Examples of such would be impulsive suicide. Such low-level planning with high impact could happen very quickly, leaving no time for adequate risk assessment, recognition and intervention. Clinicians should therefore be equipped with the knowledge and skills to identify such cases of low-level planning with high impact. The level of intent can be measured using suicide psychometric scales such as Pierce or Beck's suicide intent scales. It is however worth pointing out that though rating scales remain the best tools in predicting suicide, the level of accuracy/prediction varies, with scores not always predicting the accurate level of intent (Stefansson et al. 2010). This perhaps could explain the continued increase in the rate of suicide despite the application of risk assessment tools at every level of care.

Model case

Walker and Avant (2005) define a model case as one that demonstrates all the defining attributes of a concept. It gives an example of how the defining attributes can be illustrated.

Richard was a 25-year-old Caucasian male who lived with his girlfriend of 23 in a well-to-do area. They were both graduates, had gotten good jobs in the city and were seen as high fliers by their respective employers. With some savings since starting work, they had borrowed money from the bank and bought a house. Just before his 26th birthday, Richard was made redundant. This was unexpected. His girlfriend helped for a while, but could not do so in the long term. This caused a strain in their relationship. They separated 4 months after Richard had been made redundant. Loss of job and girlfriend (external hazard/stressor impact) was unbearable for him. Richard's mood became increasingly low; he lacked sleep, complained of a stomachache, was lethargic with low energy levels and started having a sense of hopelessness (internal crisis). Following their breakup, the girlfriend declined to meet her part of the mortgage including other bills. This put Richard in a dilemma (predicament). He started to drink regularly and excessively. He also used cannabis, which he argued helped him deal with his situation (both are maladaptive coping strategies). Before long, the bank started demanding their payment and threatened repossession. This put additional pressure on Richard (an additional stressor). In his early years at the age of 6, Richard's father left their home and never appeared again in his life. He also lost touch with his mother, who had met another man, remarried and disappeared from his life. He was brought up by his unmarried uncle who passed away soon after he graduated from the university (absence of significant others). One day he went to an underground tube station and jumped in front of a train (lethal act). His death was instant (low planning, high impact).

Having an attribute of a concept (in this case suicide) implies having all the negative qualities that eventually lead to suicide. The above scenario illustrates a lack of coping strategies and presence of a maladaptive coping mechanism. As previously discussed, alcohol abuse (Pompili et al. 2010) can lead to suicidality because it causes disinhibition and heightened impulsiveness, thereby enabling the probability of suicidal behaviour following a conflict or dissatisfaction and impaired judgement. Equally cannabis use (Tucker 2009) can lead to psychosis. A combined use of alcohol and cannabis may have a double effect of causing depression and psychosis concurrently. In relation to the models discussed above, two could be applicable: the predicament model because of his current situation, seen in his profile as early experience of loss, environmental events (loss of his job and relationship, being on the verge of house repossession) and thwarted belongingness and burdensomeness due to the loss of his dream job and loneliness due to the break up with his girlfriend.

Contrary case

A contrary case is one that does not have all the defining attributes (Walker and Avant 2005)—a balanced person(s) who has no adversities or who can cope in the face of adversity. This can be illustrated by the example below.

Mrs Day, a 38-year-old married woman, lives with her husband and their four boys aged 16, 14, 12 and 10. Though they both work, there is not enough money to make ends meet because of their relatively big family. They have a good network of friends. They are equally close to their respective extended family members. Her husband enjoys his family and shares all the responsibilities at home. The children are happy and growing up well balanced. They love football and are all members of the local children's football club. The family describes itself as close knit.

This is an example of a contrary case where Mrs Day does not have all the defining attributes. She has no hazards: internal or external; she is coping well; she has a supportive family. This is an example of an individual who, though having struggles, has not engaged in maladaptive behaviour.

Antecedents

Antecedents are events that must occur prior to a concept (Walker and Avant 2005). Antecedents to suicide behaviour are regularly demonstrated by individual characteristics such as susceptibility and lack of problem-solving skills leading to the inability of dealing with the hazards/risk factors indicated in Table 1. Lack of adaptive coping strategies may often lead to situations where individuals feel helpless, hopeless, dejected and isolated with the end result of maladaptive behaviour. Often the perception of risk factors/hazards leads to an unbearable level of stress such that escape by engaging in suicidal behaviour may be the only option (Tables 2, 3 and 4).

Consequences

Sun (2011) asserted that the inability to cope with external and internal crisis situations could be contributory factors for people to commit suicide. He argued that people are unlikely to want to commit suicide if they possess the coping skills necessary to manage their external and internal crisis situations. Where there are no coping skills, one may engage in a self-harm behaviour such as taking an overdose. Successful acts of suicide result in death and as a consequence have adverse effects socially leaving families to painful grief (Sun 2011). Hawton and Simkin (2003) suggested that people who are bereaved because of suicide, go through a distressing and difficult form of grief with one in six people experiencing intense grief. The affected families experience stigmatisation, shame, guilt connected with self-blame, shock and disbelief and a sense of rejection. Adding to the debate, Lindqvist et al. (2008) discussed the influence of adverse psychosocial factors on the surviving family members in the aftermath of suicide. Equally Schneider et al. (2011) stressed that those bereaved by suicide experienced disturbance in their everyday life such as anger and low mood, with females showing an increased risk

Table 2 Attributes, antecedents and consequences of suicidal behaviour—modified from Sun (2011)

Suicide Behaviour		
Antecedents	Attributes	Consequences
• Vulnerability characteristics that lead to poor perception of stressful events being unbearable-inability to cope with adverse events/situational crisis →	• External Hazards • Internal Crisis • Absence of coping mechanisms • Absence of significant others • Suicidal intent • Lethal act	→ Consequences • Death • Injury • Organ damage • Psychological trauma • Long lasting disability

Table 3 Antecedents, attributes and consequences of suicidal mutilation. Adapted from Sun (2011)

Suicidal-Mutilation		
Antecedents	Attributes	consequences
• Unbearable emotional distress • Maladaptive coping strategies	• Release of emotional pain • Physical injury	• Use of physical pain to replace unbearable emotional pain.

of lack of energy, with teenage suicide being more traumatic, and families struggling to find explanations for why the suicide occurred, searching for meaning in order to adapt to losses, withdrawing themselves from socialising, and experiencing low self-esteem and feelings of inferiority.

Empirical referents

Empirical representations (referents) are used both to aid the measurement and acknowledgment of a concept and to help in the development of research instruments (Walker and Avant

Table 4 The antecedents, attributes and consequences of deliberate self- harm. Adapted from Sun (2011)

Suicidal Self-Harm		
Antecedents	**Attributes**	**Consequences**
Tension/Anxiety Aggression/Impulsivity Feeling of depersonalisation or derealisation History of abuse	**Absence of:** A fatal outcome Suicidal intent Psychosis Organic brain impairment **Presence of:** Repetitive episode Addictive behaviour Contagious effects Borderline or other personality traits Other co-morbidities	Relief of tension Communication of emotional pain Paradoxical disengagement from treatment or care plan.

2005). In order to recognise the intent of suicide and to conceptualise this, a number of tools have been developed. These as indicated by Sun (2011) fall into five groups: (1) clinician rated instruments, (2) self-rated suicide instruments, (3) self-rated buffers against suicide, (4) instruments focussed on children and adolescents and (5) special purpose scales such as attitudes towards suicide. Success in elucidating the right outcome however varies and is dependent to some extent on the training and confidence in the use of such tools or how the information is solicited from patients. In their recent study, McLaughlin et al. (2014) reasoned that paying attention to mandatory updates on the use of tools (risk assessment) not only increases the confidence of staff but also helps in understanding the theoretical concepts of the often complex nature of suicide. In this way clinicians learn, practise and internalise the required skills necessary for risk assessment via the use of tools. Of the many assessment tools, the commonly applied ones include Beck's suicide rating scale (Beck et al. 1979), the nurses' global risk assessment tool (Barker and Cutcliffe 2004) and Pierce suicide rating scale (Pierce 1977). These tools have varying success in predicting suicide. However, as suggested above (Stefansson et al. 2010), they do not always accurately predict intent. Clinicians should perhaps be more aware of other variables that are strongly associated with completed suicide: gender, being single, age, presence of mental illness, long-term use of hypnotics and the presence of poor physical health (terminal illness), culture and the various risk factors described above.

Discussion

Implications for practice

The primary goal for clinicians working with suicidal patients is to assess the degree of risk and intent faced by individual patients. Whereas this is an important goal, it is also vital that clinicians understand that individuals who die by suicide do so as a result of multiple rather than single risk factors in isolation and within the context of maladaptive coping strategies and vulnerability. Concept analysis (Walker and Avant 2005) allows for a clear definition of attributes, antecedents and consequences (Tables 2, 3 and 4) while at the same time enabling a better understanding of suicide behaviour and management.

To adequately manage suicide, it is important that clinicians fully understand the impact of various risk factors influencing suicide behaviour and complete suicide. The first step would be to identify vulnerability in patients or would be patients. Equally, understanding the above factors in concept analysis would enable clinicians to be aware of suicidal behaviours and develop individual intervention methods accordingly.

The three models discussed would perhaps help clarify the level of risk and their implications were they to escalate. The predicament model would help clinicians direct intervention methods accordingly in the phase of adversity and absence of adaptive coping strategies. For instance, both the level of a predicament and the perceived meaning placed on it by an individual should be assessed. The labelled pathway to suicide, which takes a medicalisation approach to social issues, would be helpful in understanding the connection between social issues and diagnosing mental illness. It would be advantageous if social issues are seen as such and patients helped/treated accordingly.

Interpersonal theory would also be important in understanding suicidal behaviour especially when one considers social isolation and inclusiveness as major components of suicidal ideations. Thwarted belongingness (*I am alone*), social isolation and perceived burdensomeness (*I am a burden*) and acquired capability of self-harm/suicide must be identified with those presenting with suicidal thoughts/ideations. In their research Van Orden et al. (2010) indicated burdensomeness as a key feature in adolescents presenting with suicidal ideations or acts of self-harm and that these were often on the backdrop of family conflicts (a key risk factor of suicide). This may also be a common feature in those with physical or chronic conditions. The same understanding should apply to labelled pathway suicide, where a misdiagnosis may lead to inappropriate diagnosis and intervention(s).

The above cannot be achieved without risk assessment, which can be carried out via the existing risk assessment tools such as the Beck Depressive and Pierce Suicidal Intent scales. However as indicated by Granello (2010), accurate risk assessment is essential for the acute, modifiable and treatable risk factors. Risk assessment helps to identify specific interventions that can counter the suicidal behaviour. For those presenting for the first time with suicidal thoughts or acts, clinicians should be equipped with the knowledge and skills to identify the antecedents and attributes if consequences are to be avoided. On the other hand, for the existing clients, detailed knowledge of these factors should be the top priority if clinicians are to help prevent continued suicidal behaviour. In the equation, should be a clear understanding and differentiation of self-mutilation and deliberate self-harm. Though used interchangeably (Sun 2011), they are distinctively different from self-mutilation (Table 3) which reffers to an act where there is absence of intent and fixation with death. It (mutilation) is an intentional act where tissue damage occurs with the sole purpose of shifting the overpowering emotional pain to a more tolerated physical pain. Depending on the degree of tissue damage, self-mutilation can be a precursor to an elevated risk of suicide. Concerning deliberate self-harm, Mangnall and Yurkkovich (2008) identified three key ingredients that must be present for an act to be defined as such: first, the act must not involve conscious suicidal intent;

second, the outcome/consequence of the act must be minor to moderate physical injury; third, the act occurs in the absence of a psychosis and/or organic intellectual impairment. A clear identification of these behaviours in patients would help clinicians employ specific interventions.

As suggested in the opening paragraph, suicide prevention is a national priority. As such, mental health services require awareness of the antecedents of suicide among the high-risk groups. Some researchers have found the psychological autopsy method a useful tool to establish the antecedents of suicide/risk factors (see Table 1). It refers to a careful collection of data that is likely to help reconstruct the psychological environment of those who have committed suicide in order to better understand the circumstances of their death. It is often done when the course of death is unknown or ill defined. Included in this process is an interview of those connected with the person as well as the medical records and other official sources (Siddamsetty et al. 2014).

There is no estimation of the burden of the antecedent condition that leads to death by suicide with a highly deleterious outcome. This is because suicidal behaviour often occurs in response to an aversive self-focussed emotional state that leads to a breakdown in cognition and problem solving. It is imperative that clinicians actively identify means of engaging clients in the development and internalisation of positive coping strategies. In addition, a risk reduction strategy must consider the particular factors that appear to underpin the persons' feeling of suicidality and perceptions of their situation.

Compliance with ethical standards

Conflict of interest The authors declares that they does not have a conflict of interest.

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