



Understanding and Preventing Suicide

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Abstract

Suicide has become a popular public health issue. The trend of the event has increased worldwide over time. As predicted, there is one death on Earth every 40 seconds (WHO, 2020). It is one of the leading causes of death on earth and affects the elderly severely. This work provided a broad understanding of the concept of suicide and the cause and prevention of suicide. The main goal of this work is to provide a different global understanding of the concept, causes and prevention of suicide. A documentary analysis methodology was used due to a large number of essays, reports and research conducted particularly in the field of public health and suicide work. Many authors point to mental health issues, sex, mental illness, physical illness, genetics, and drugs as causes of suicide. Some factors are considered to be the cause of the suicidal act. It is believed that two routes lead to the factors that cause suicide. In this work, Blaikie et al. (2005) have adopted and modified the pressure-and-release model to show how suicide progresses from the root cause to an unsafe life and eventually to an act of suicide. mental illness, physical illness, genetics and drugs, and an ultimately insecure life reigns. In the end, suicide took place problem facing the people of the earth. In addition, strengthening personal relationships, strengthening personal beliefs, including religious beliefs, and strengthening positive coping strategies must be encouraged in our society to eliminate suicidal acts.

Keyword; *Suicide, Prevention, Root Cause, Psychology and Death*

Introduction

Suicide is defined as the intentional killing of one's own body (Turecki and Brentid, 2016). Is a fatal form of self-harm that has become a global public health problem. The number of suicides is increasing worldwide. It is reported that over 30,000 people in the United States and approximately 800,000 to 1 million people around the world die by suicide each year; This makes it one of the leading causes of death (Bachmann, 2018; WHO, 2017). Similar data were reported by WHO 2020 as of 2016. The death of 800,000 people per year is equivalent to the death of one person every 40 seconds (WHO, 2020). It is the leading cause of death in people aged 15 to 19 (WHO, 2019). It is also estimated that at least 6 people are directly affected by each suicide death (WHO, 2017). In 2015, the death rate was 10.7 per 100,000 people per year; with variability between age groups, regions and countries. This implies that there is about a single death every 20 seconds (Bilsen, 2018; Nock et al., 2008). Similarly, similar data have been reported by the WHO for 2020 as of 2016. It is the 15th leading cause of death worldwide, accounting for 1.5% of all deaths. An estimated 1.5 million people will die by suicide this year (2020). Data provided by WHO suggests that actual suicide rates increased worldwide between 1950 and 2004; especially for men (Bertolote et al., 2002 in Nock et al., 2008), and data-based estimates suggest that the number of self-inflicted deaths will increase by up to 50% between 2002 and 2030 (WHO, 2017; WHO, 2014; Nock et al., 2008).

It is also reported that suicide affects all age groups of the population, but rates increase significantly with worldwide. In almost all countries, the highest rates are among the oldest people over 80 (60.1 per 100,000 males and 27.8 per 100,000 females), 7079-year-olds (42.2 per 100,000 males and 18.7 per 100,000 females), and 6069 -year-olds (28.2 per 100,000 males and 12.4 per 100,000 females) (Bilsen, 2018). Undoubtedly, many more men commit suicide than women (Bilsen, 2018; Bachmann, 2018), except in some countries such as China and Bangladesh, where women are 23 times more likely to commit suicide than men (Bachmann, 2018). Suicide rates significantly from country to country. Globally, the higher number of actual suicide cases (78-79%) in 2015 was estimated in low-and middle-income countries (LMIC) (WHO, 2019; Bachmann, 2018). Thereafter, death rates for actual suicides were 1.4% of all-cause mortality rates; between 0.5% in African regions and 1.9% in Southeast Asian regions (WHO, 2017; Bachmann et al., 2018). The male-female suicide ratio varies from 4 to 1 in Europe and America, from 1.5 to 1 in the eastern Mediterranean and western Pacific regions, and is estimated to be highest in high-income countries (Howton et al., 2009). It should be noted that these WHO-defined regions do not entirely overlap with geographic regions. For example, the African region mentioned does not include the eastern Mediterranean (the Arab countries). In addition to the actual cases of suicide, there are also suicide attempts. The cases of attempted suicide are very common compared to the actual suicide cases. They are about 10 to 30 times more common than actual suicides (Bachmann, 2018; Borges et al., 2010). The global prevalence of suicide attempts is estimated to be approximately 3 per 1,000 adults. It is also estimated that around 2.5% of the

population will attempt at least one suicide in their lifetime. However, all this suicide data is probably still an underestimate of the real problem (Bachmann, 2018; Bilsen, 2018)

Registering a suicide case is not as easy a task as you might think. It is a very complicated task, often involving judicial authorities. Unless the phenomenon may not be recognized or misidentified as an accident or other cause of death. Inadequate knowledge among health workers can also lead to the misdiagnosis of death as an accident: falls, drowning and submersion, physical injury, exposure to smoke or fire, and accidental poisoning and exposure to pollutants (Bachmann, 2018). Sometimes cases of suicide are not identified or reported at all: they may be burdened with stigma, beliefs, legislation, and policies (e.g., dying by suicide, seeing a family doctor within a month of death, yet there is rarely documentation of medical investigations or patient education). (Turecki and Brent, 2017) WHO has kept cross-country data on actual suicide mortality since 1950, but there are inconsistencies between individual government reports, with only 11 countries reporting data in 1950, 74 in 1985 and 50 in 1998 reported because health issues may have affected the validity of previous data and the resulting estimates Country estimation of trends (Nock et al., 2008). Another researcher reported that the WHO does not receive data on suicide attempt cases from any country in the world, although at least information from emergency departments/somatic hospitals and self-reports could be obtained (Bachmann, 2018). It occurs to us that the world is at the pinnacle of social, economic, political and technological progress. Man has achieved the greatest achievements of civilization, why then does an entire being intentionally take its own life, for whatever reason? As world civilization increases, human well-being is expected to increase in terms of life expectancy, happiness, social security, increased human dignity, respect, and wealth. As already mentioned, the existence of several actual cases of suicide and suicide attempts speaks to a negative image of all humanly achieved developments. This is quite unexpected; it shocks the world and causes the greatest concern as to whether these human achievements are real or fake. As previously mentioned, this poses a serious public health concern as the number of actual suicides and attempted suicides is increasing dramatically around the world. Therefore, it is very important to properly understand this issue; both psychosocial and biological. Below, this overview gives a brief overview of the very important social and biological aspects of this problem, including the main risk factors and preventive measures.

Methods of suicide

According to the WHO, around 20% of actual global suicides are due to top pesticide poisoning, most of which occur in rural agricultural areas in low- and middle-income countries (WHO, 2019). Other common suicide methods include guns and hanging. Understanding the most commonly used suicide methods is very important to understanding device prevention techniques that are effective.

The root cause of suicide

Figure 1 below is a simplified model showing the root causes of both actual and attempted suicides. As will be explained, mental illness and other previously mentioned biological factors usually play a role as dynamic factors, but sometimes they can also play a role as a root cause. This is the same research, while mental illness plays a very important role in suicide, other factors e.g. B. psychosocial factors, are also particularly influential (WHO, 2012).

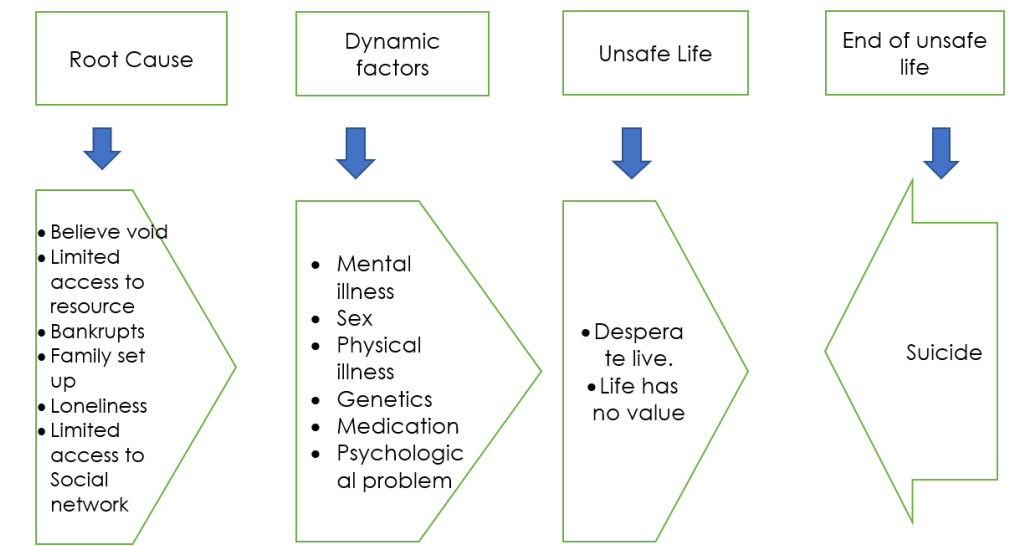


Figure 1: Rooting of Suicide (Modified from Blaikie et al, 2005)

Psychosocial factors

As shown in Figures 1 and 2, several psychosocial factors have been identified as the main cause of actual suicide and suicide attempt. Rourke et al., 2020, identified the following psychosocial factors as major causes of both actual and attempted suicide: a sense of usefulness in life; which corresponds to the religious gap mentioned in Figures 1 and 2, a sudden and major change in a person's life; such as divorced marital status or loss of partner; this is similar to gender shown in figures 1 and 2 and job loss, negative life experiences such as substance abuse, financial difficulties,

social media; Individuals affecting imitation, particularly in younger people, family history of suicide, serious adverse events; such as sexual abuse and harassment, discrimination, for example, because they are gay, lesbian, transgender or bisexual and have been bullied for a long time

Berardelli et al., 2018 also identified the following lifestyle habits as the main causes of actual suicides and suicide attempts: lack of exercise; which corresponds to loneliness, family conflict or isolation as mentioned in Figures 1 and 2; which also corresponds to the family environment mentioned in Figures 1 and 2, high prevalence of alcohol and cannabis use, interpersonal factors (family conflicts and problems among peers); which also corresponds to the family environment mentioned in Figures 1 and 2, and lower life satisfaction. All of these psychosocial factors; and others not mentioned here may influence mental illness and suicidal behaviour (actual suicide and suicide attempt) by influencing suicidal ideation (feelings and judgments). In this way, the biological factors described below can play a role as dynamic factors.

Biological factors

Various biological factors have been described as risk factors for suicide attempts and actual suicides. Recent studies (Stephen et al., 2020; ORourke et al., 2020) have found medications, persistent pain, advanced age, chronic illness, mental illness, gender, genetics, neurosis, chronic sleep problems, functional impairment and traumatic brain injury, physical illness as the prevailing biological factors. simple mental illness (ORourke et al., 2020; Bachmann, 2018; Bilsen, 2018; Bridge, et al., 2006). Therefore, in this article, we only analyzed mental illness as the main biological cause

Mental Illness

From a biological perspective, insanity refers to health conditions that distract a person's (or all three) feelings, thoughts, and behaviour, causing the person to suffer and become dysfunctional. There are a variety of mental illnesses, including schizophrenia, attention-deficit hyperactivity disorder (DHD), depression, obsessive-compulsive disorder, and autism. As with many other health conditions, mental illness is severe in some cases and mild in others. People with mental illnesses don't necessarily look like they are ill, especially when their illnesses are mild. Other people may present with more obvious symptoms, such as agitation, withdrawal, and confusion. It is reported that around 90% of people who commit suicide have suffered from at least some form of mental illness (Bilsen, 2018; Gould, 2001 in Bilsen, 2018). Mental illness can be considered an independent factor as the root cause of actual suicide or suicide attempts; can, as already explained, be attributed to psychosocial factors (Berardelli et al., 2018; Hegerl, 2016). In this respect, biological factors can also play a role as causes. See also Figure 2 below

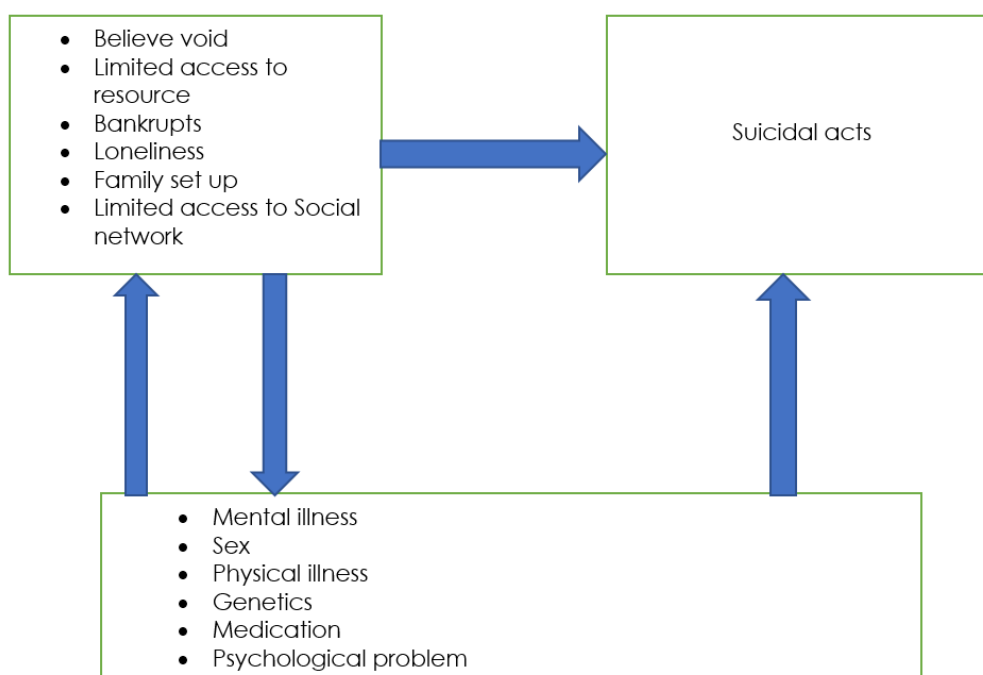


Figure 2: The model showing the causal relationship between depression and other mental disorders, psychiatric factors and suicides. Model A is often preferred by sociologists and health politicians. Model B is preferred most by psychiatrists. Modified from Hegerl et al., 2015 in Hegerl, 2016.

It is known that mental illness contributes between 47 and 74% to the risk of suicide (Bilsen, 2018). The reported proportion of actual suicides due to mental illness is between 60 and 98% (Bachmann, 2018). Many studies have reported that mood disorders (a range of psychiatric or mood disorders) such as depression and bipolar disorder are the most commonly identified disorders in this context. Up to 87% of people who die from actual suicide meet the criteria for a psychiatric disorder before dying (Bilsen, 2018). At the beginning of the 21st century, the world's highest true suicide mortality rate was due to depression (30%), followed by substance use disorders (18%), schizophrenia (14%), and personality disorders (13%). (Bachmann, 2018). Further studies conducted elsewhere found evidence of depression in 50-65% of actual suicides, more common in women than men. This is because they increase impulsivity and impair judgment, which increases the risk of suicide. In these studies, 30-40% of people who died from suicide

had personality disorders such as antisocial personality disorder or borderline personality disorder (Bridge, et al., 2006; Palmer, et al., 2005). and then stabilizes in early midlife (Nock et al., 2008).

Suicide by Regions

World data from the WHO shows that about 16.7 people out of 100,000 people commit suicide each year. It is the 14th leading cause of death worldwide, accounting for 1.5% of all deaths. Suicide rates vary significantly between regions and countries, of age, gender, socioeconomic status of people and country, suicide methodology, and even access to health care (Bachmann, 2018). Although around 78-80% of all completed suicides (actual suicides) occur in low- and middle-income countries (WHO, 2019; Bachmann, 2018), suicide rates in general; both actual suicides and suicide attempts are highest in Eastern Europe, followed by the United States of America, Western Europe and Asia, and lowest in Central and South America (Nock et al., 2018; WHO, 2007). Some of these regions and their estimates are summarized here: The highest regional age-standardized death rate was observed for Eastern Europe at 27.5 deaths per 100,000, 95% uncertainty interval of 10.1 to 37.2, followed by high-income Asia-Pacific (18.7, 15.6 to 21.7) and sub-Saharan Africa (16.3, 14.3 to 19.3). A similar pattern was observed for the regional age-standardized life loss rates, with the highest estimated age-standardized life loss rate estimated for Eastern Europe (1200.3 life years per 100,000, 95% uncertainty interval 869.2 to 1635.9), followed by Asia at the highest-income Pacific (742.0, 614.6 to 855.6) and southern sub-Saharan Africa (664.1, 579.6 to 809.8). The age-standardized true suicide mortality rate decreased in most regions of the global burden of disease between 1990 and 2016, with only a nonsignificant increase observed in the regions of central Latin America (14.6%, 95% uncertainty interval 5.9% to 31.3%). High-income Asia Pacific (10.1%, 23.5% to 30.0%), Western Sub-Saharan Africa (4.3%, 10.4% to 20.7%)

In Eastern Europe in particular, there were phases in which the age-standardized death rate from actual suicide among men increased and decreased. The age-standardized death rate from actual suicide among men in Eastern Europe was similar at the beginning and end of the study period (27.1 deaths per 100,000, 95% uncertainty interval 23.8 to 34.1 in 1990; 27.5, 20.1 to 37.2 in 2016) and increased to 42.8 deaths per 100,000 during this period (95% uncertainty interval 33.7 to 50.2)

Suicide by countries

The uneven distribution of actual suicide cases (for both sexes) per 100,000 population between countries in 2015, as reported by WHO, 2017, is summarized here: The lowest suicide rates (between 0 and 4.9) were reported; in order of increasing rates in Antigua and Barbuda, Barbados, Pakistan, Guatemala, Egypt, Syrian Arab Republic, United Arab Emirates, Indonesia, Iraq, Venezuela, Algeria, Jordan, Saudi Arabia, Philippines, Iran, Kuwait, Greece and Morocco. Actual suicide rates ranging from 5.0 to 9.9 have been recorded in Mexico, Somalia, Bangladesh, Panama, Afghanistan, Libya, Tunisia, Peru, Nepal, Bosnia and Herzegovina, Brazil, Zambia, Kenya, Ghana, United Republic of Tanzania, Uganda, Kyrgyzstan and Vietnam, Ecuador, Namibia, Italy, Macedonia, Ethiopia, Mozambique, Spain, United Kingdom, Turkey, Congo, Nigeria, Chile and Singapore. Suicide rates between 10.0 and 14.9 have been reported from China, South Africa, Gabon, Norway, Ireland, Romania, Bhutan, Australia, Cambodia, Cameroon, The Netherlands, Denmark, Lao People's Democratic Republic, Canada, Slovakia, New Zealand, Iceland, Germany, Portugal, Czech Republic, Argentina and the USA. The highest rates of at least 15 have been reported in Switzerland, Sierra Leone, Sweden, India, DPRK (North), Bulgaria, Thailand, Finland, Austria, France, Serbia, Bolivia, Estonia, Japan, Russia and the federation, Belgium, Slovenia, Hungary, Latvia, Poland, Kazakhstan, Mongolia, Republic of Korea (South), Lithuania and Sri Lanka global burden of disease, particularly high-income South Korea in the Asia Pacific, Indonesia in Southeast Asia and Lesotho and Zimbabwe in Sub-Saharan Africa age-standardized years 1 Loss rates were lowest in the same countries. In countries with more than 1 million inhabitants, the age-standardized rates of death from actual suicide were Lesotho (39.0 deaths per 100,000, 95% uncertainty interval 25.5 to 55.7), Lithuania (31.0, 25.6 to 36.2), Russia (30.6, 20.6 to 43.6) and Zimbabwe (27.8, 21.1 to 37.3). Lithuania (1317.8, 1065.1 to 1547.5), Kazakhstan (1119.9, 858.9 to 1462.7) and Mongolia (998.1, 744.3 to 1230.5). Age-standardized death rates for actual suicide were obtained in Lebanon (2.4 deaths per 100,000, 95% uncertainty intervals 1.6 to 3.5), Syria (2.5, 2.0 to 3.0), Palestine (2.7, 2.1 to 3.6), Kuwait (2.7, 1.7 ton.) lowest 3.8) and Jamaica (2.9, 2.2 to 3.7). The age-standardized rates of life years lost were lowest in the same countries.

Prevention of suicide

As shown in Figures 1 and 2, lifestyle regulation, which represents the risk factors for both attempted and actual suicide, is a key component in suicide prevention. This has been addressed by Berardelli et al., 2018 and many others. Likewise, according to Bilsen, 2018 and WHO, 2014, methods of preventing suicide risk can be divided into three (3) categories: universal prevention methods aimed at reaching the entire population; can focus on improving access to health care, maintaining and promoting mental health, reducing substance abuse, limiting access to suicide funds and promoting media coverage; they do not affect the imitation. Selective prevention methods should reach the population at risk, e.g. B. People suffering from abuse or trauma, people affected by disasters and conflict; including family conflicts, migrants and refugees, survivors of suicide; being robbed through the suicide of a close relative or friend, training people to help vulnerable people and providing support services such as hotlines. such as hospitals and rehabilitation facilities, providing education and training for healthcare providers and strengthening the detection and treatment of substance use and mental illness; such as those mentioned by Berardelli et al., 2018: relevant programs such as psychoeducational family treatment, assertive community treatment, psychosocial therapies and social skills training. Other methods of suicide prevention include: strengthening personal relationships and strengthening personal beliefs; these include religious beliefs and strengthening positive coping strategies.

Discussions

In general, the regional data presented in this study shows that high-income regions, such as European and American regions, have high suicide rates compared to low-income regions, such as Asian and African regions. A similar pattern can be seen in the country data. Developed countries are reported to have high rates of suicide cases compared to developing countries. This brings our attention back to the question posed earlier: the greatest achievement of civilizations that man has attained; Why, then, in particular developed countries, does an entire living intentionally take its own life, for whatever reason? In response to this question, the presence of a large number of actual suicides and suicide attempts in industrialized countries contributes to a negative image of the development of these countries. It may be that these developments are not real for the people in these countries. As world civilization increases, human well-being is expected to increase in terms of life expectancy, happiness, social security, increased human dignity, respect, and wealth. If it doesn't, it means something is wrong. These things are behavioural risk factors that have been reported in various references discussed in this study: Barardelli et al., 2018, Bilsen, 2018, Nock et al., 2018, Turecki and Brent (2016), Hegari and Koburger (2015), and Borges et al., 2010. These behavioural risk factors are largely the things that disrupt the above expectations. These include: risk factors are loneliness; Lack of social interaction, substance abuse such as excessive alcohol and cannabis use, belief gaps, etc. On the other hand, the same or similar risk factors for suicide have been reported in developing countries, but few references among the references used in this study report loneliness; lack of social interaction and lack of faith; This includes religious beliefs in developing countries. This is one of the main reasons developed countries have higher rates of both actual and attempted suicide. Furthermore, according to WHO, 2012, developing countries are relatively less equipped to prevent the risk factors for suicidal behaviour. This is also one of the main reasons that developing countries have higher suicide rates (actual suicides). In addition, WHO reported in 2012 that while suicide remains a serious problem in developed countries, low- and middle-income countries bear most of the global suicide burden

Conclusion

The best data on actual and attempted suicides are regularly updated by WHO; through their websites. In general, the available data show that suicide rates vary particularly by region and country; with the diversity of changing economic, cultural, social and environmental factors, as well as with age and gender, the concrete picture emerges that suicide rates are increasing among people with chronic physical illnesses; such as people with disabilities and mental illness; those with mood disorders (a range of psychiatric or mood disorders), such as depression and bipolar disorder, and those with a history of attempted suicide; who have already attempted suicide. Globally, the quality of suicide data tends to be below medium due to misdiagnosis, underdiagnosis, or non-diagnosis and reporting. For these reasons, much less is known about suicide attempts; According to Bachmann, 2018, they could exceed actual suicides by 30 times. Suicide prevention is possible and urgently needed. Therefore, the implementation of the preventive measures addressed in this study is justified.

The authors confirm that the data supporting the findings of this study are available within the article [and/or] its supplementary material

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