

Emotional Intelligence and Suicidal thoughts – How Related are they? – Systematic Review

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Abstract

Background

The literature on interpersonal disparities in health and well-being has grown steadily in recent decades, leading to an overall body of studies on relational factors correlated with outcomes in mental health. One factor that has demonstrated consistent connections with outcomes related to health and is thus an especially important subject of clinical studies is Emotional intelligence.

The objective of the Study

To review and study the association between suicidal thoughts and emotional intelligence in general condition and during COVID - 19 crisis.

Method

This systematic review was performed according to the PRISMA guidelines. Articles were looked into sources like Science Direct, PubMed, Web of Science and the Cochrane Library using the relevant search terms.

Results

Twenty-two articles were included. EI and suicidal behaviour correlated inversely in almost all the articles that the Emotional Quotient Inventory (EQ-i) and The Emotional Intelligence Test (EIT) Scale were used. The higher the suicidal behaviour level, the lower the EI score. Although Emotional Intelligence (EI) has several factors related to the idea of suicide and its behaviours, there are various literature gaps.

Conclusion

This article discusses how emotional intelligence is important for healthy mental health. These results indicate an intrinsic mechanism by which EI will act as a preventive factor against the idea of suicide. Plausible directions for future study and interventions are addressed according to the limits of our experience.

Keywords: Emotional Intelligence, Depression, Suicide, Mental Health, Stress

Introduction

WHO characterizes the idea as “an act with a fatal outcome which the deceased, knowing or expecting a fatal consequence, had initiated and carried out to provoke the changes that are desired”, although the complete idea is defined as " a spectrum of events including thought, planning, attempts and suicide itself. We will follow these definitions for the purposes of our systematic analysis. Suicide is a major public health concern, and suicide rates have risen globally over the past 45 years [1]. Teenagers form the most affected category among one-third of the world’s population. Suicide becomes the second most caused death between the ages of 10 and 24. There are significant variations in suicidal behaviour, gender and age. In most countries, males are associated with higher suicide rates than females, and the risk of suicide dying rises with age [2-3]. Official suicide reports are just the tip of the iceberg. The severity of the epidemic becomes clear as attention is extended to the full spectrum of suicidal behaviours — attempts, intentions, feelings. The WHO recommends a public health strategy to prevent suicidal behaviour, focusing on understanding a group or population's suicide behaviours and suicidal behavior [4-5]. The goal is to improve behaviors to protect people from suicidality and improve the actions that endanger people. The approach to public health involves monitoring, detecting risk (protective) causes, prevention / intervention and assessment. Also, in a situation like COVID – 19, it is important to define emotional intelligence and emotional maturity to prevent the psychological impact on humans.

Emotional Intelligence

Emotional intelligence refers to an individual ability to manage and control their own emotions and interact with others. Emotional intelligence contributes to the skill of a person to control and regulate his own emotions and to communicate with others. Thorndike has incorporated the term relational intelligence in his influential philosophy called social intelligence [6]. The theory of social intelligence suggested an individual's capacity to maintain wise ties with others. This theory of social intelligence gradually formed by Gardener split the notion into interpersonal and intrapersonal aspects in his multiple intelligence ideas. Before the concept suggested by Goleman, Salovey and Mayer found the most important of emotional intelligence is regulating and manipulating their own emotions [7]. They developed theoretical structures that stressed four elements: internally perceiving, utilizing, knowing, controlling emotion, and communicating with the outside world. Extensive research shows that Emotional Intelligence (EI) significantly influences our decision-making and behavior. Mastering the emotional brain is a function of recognising, understanding, and controlling one's emotions. EI's five main elements are self-consciousness, self-regulation, self-motivation, empathy, and cognitive competencies [8]. We may describe self-awareness as the capacity to perceive and appreciate one's own emotions. Since controlling ourselves, possessing empathy for others, and so, everything relies on finding and recognizing emotion within us. A step to further achieve high EI is Self-regulation. We not only need to be able to understand our own emotions, but we also need to be able to interact, monitor effectively and manipulate them [9]. Individuals with increased Emotional Intelligence often usually have more drive inherent to them. In other words, high emotional intelligence people are driven to win money, recognition or fame for internal purposes rather than external incentives. Empathy can be described as the desire, on an interpersonal level, to consider how other people feel and know how you would feel if you were in their position. Ultimately, social talents enable people to communicate professionally with each other and effectively manage social circumstances. Usually, high-EI people have a higher-than-average cognitive power and can follow their goals successfully and produce the results they want through engaging with others [10].

Methods

Literature Search

The following databases were used for research: Web of Science, Scopus, Medline, Pubmed, ProQuest, Cochrane Library, and Google Scholar. First, we performed a cursory search of articles about EI and suicide without requiring that the two variables identify the search's keywords. Then, we came up with the following words to determine the search criteria. "Suicide," "Suicidal Behavior," "Suicidal Ideation," "Suicidal Attempt," and one of the following keywords: "suicide," "Suicidal Behavior," "Suicidal Ideation," "Suicidal Attempt," and "Emotional Intelligence" or "Emotional Competence." We read all of the titles and abstracts after getting the reports from the different sources, choosing the papers for our study and removing duplicate articles. The inclusion and exclusion of the studies can be seen in the flowchart given below.

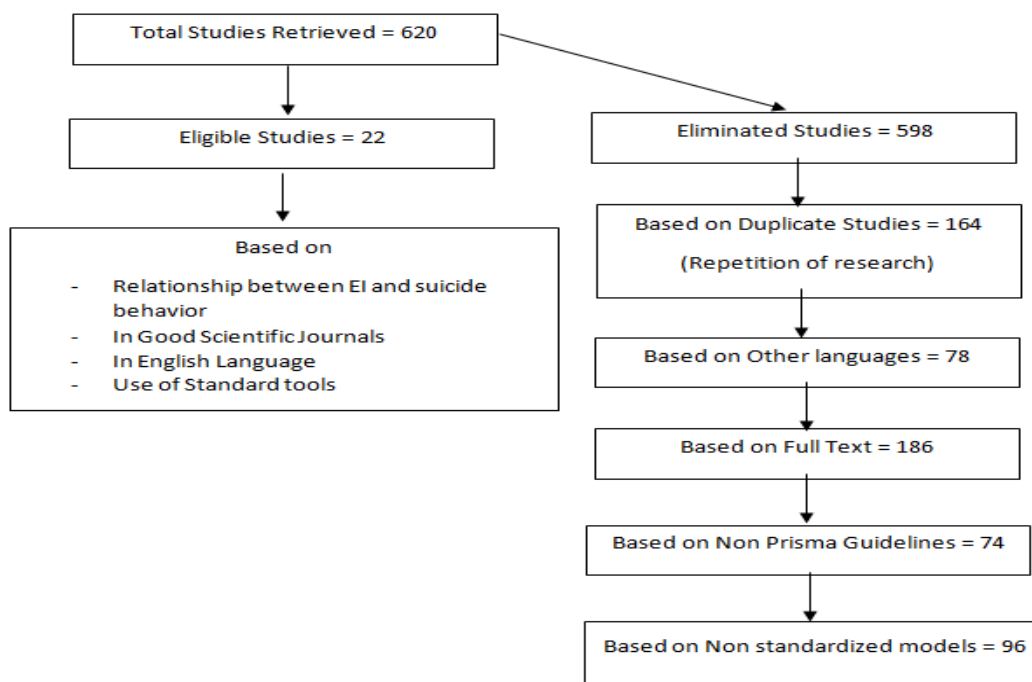


Figure 1

Study Selection and Screening

The following inclusion criteria were used:

- The research had to be observational and focused on the relationship between EI and suicide.
- The experiment had to use a description of the suicidal activity that was similar to the one provided by WHO.
- The study had to use EI instruments based on theoretical models.
- The work had to be published in scientific journals.
- The work had to be written in English.

The studies that did not qualify for the criteria mentioned above were excluded. Duplicate articles were deleted after the search results were imported into Zotero software. Output or self-report tasks based on EI's ability model or self-report instruments based on EI mixed models included in the studies. We followed a PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines and checklist to avoid the risk of bias.

Characteristics of the Included Articles

The most important data from the selected articles in general and the models used in this systematic analysis can be found in the below table. In order to present the data in a more appropriate way, we have divided the studies by Sample size, outcome and grouped the results according to the instrument applied in each case.

Table 1

S. No	Study By	Suicidal Behaviour and EI Tool Used	Sample Recruited	The outcome of the study
1.	Herrero et al (2014)	Suicidal Ideation / Tool – TMMS - 24	92	Suicidal ideation can be predicted with Emotional Intelligence
2.	Rahgozar et al (2011)	Suicidal Ideation / EI Tool – EQ-i	60	Low Emotional Intelligence levels are related with higher Suicidal Ideation levels
3.	Paradiso et al (2016)	Suicidal Ideation / EI Tool – MSCEIT	185	Greater Suicidal ideation with low levels of Emotional Intelligence
4.	Shah et al (2014)	Suicidal Ideation / EI Tool - MSCEIT	192	Emotional Intelligence can predict Suicidal thoughts
5.	Dasgupta et al (2011)	Suicidal Ideation / EI Tool - EIT	200	Negative correlation between Emotional Intelligence and Suicidal ideation
6.	Adollahi et al (2016)	Suicidal Ideation / EI Tool - EIS	202	High levels of Emotional Intelligence is related to low levels of Suicidal Ideation score
7.	Kopera et al (2018)	Suicidal Ideation / EI Tool - SSEIT	80	Moods play a major role in predicting the components of Emotional Intelligence
8.	Kwok et al (2014)	Suicidal Ideation / EI Tool – C-EIS-R	302	Negative correlation between Suicide ideation and Emotional Intelligence
9.	Moayedi et al (2014)	Suicidal Ideation / EI Tool – EQ-i	100	Suicidal attempt high score
10.	Caballero et al (2015)	Suicidal Ideation / EI Tool – TMMS – 24	44	Low Suicidal ideation score is related to less negative emotions among the individuals
11.	Suarez et al (2012)	Suicidal Ideation / EI Tool – TMMS 24	157	There is a negative correlation between Emotional Intelligence and Suicidal Ideation thoughts

12.	Rey et al (2016)	Suicidal Ideation / EI Tool - WLEIS	1125	Higher Suicidal Ideation relates to Low Emotional Intelligence
13.	Merida – Lopez et al (2018)	Suicidal Ideation / EI Tool - WLEIS	270	Emotional Intelligence can prevent the risk of Suicidal thoughts
14.	Ciarrochi et al (2002)	Suicidal Ideation / EI Tool - EIS	302	Negative Relationship between Emotional Intelligence and Suicidal thoughts
15.	Madbouly et al (2017)	Suicidal Ideation / EI Tool – Barchard’s Emotional Intelligence Scale	36	No significant correlation between Emotional Intelligence and Suicidal risk
16.	Mamani et al (2018)	Suicidal Ideation / EI Tool – EQ-i	33	Post intervention showed result of Improved Emotional Intelligence and low Suicidal ideation score
17.	Lopez et al (2012)	Suicidal Ideation / EI Tool – EQ - i	829	High Emotional Intelligence is inversely proportional to suicide
18.	Aveh et al (2016)	Suicidal Ideation / EI Tool – EQ - i	367	Emotional intelligence predicts Suicidal Ideation
19.	Limonera et al (2018)	Suicidal Ideation / EI Tool – TMMS - 24	144	Low level of Emotional Intelligence with high suicidal risk
20.	Talib et al (2015)	Suicidal Ideation / EI Tool – EIS	202	There is a moderate link between Emotional Intelligence and Suicidal Ideation
21.	Kwok et al (2015)	Suicidal Ideation / EI Tool – C-EIS-R	127	There is no association between Suicidal thoughts and Emotional Intelligence
22.	Extremera et al (2018)	Suicidal Ideation / EI Tool – WLEIS	1660	Low emotional intelligence is associated with high suicidal risk factors

Why Emotional Intelligence in Suicide?

Suicidal ideation refers as an individual thought to end up their life intentionally due to the several reasons. Such kinds of thought arose as the ultimate solution to their fight for survival. It is normal for people suffering from stress and depression to have suicidal thoughts [11]. These self-destructive impulses led a person to try and commit suicide under separate situations. Analysis conducted by Ibrahim, Amit, & Suen, found a strong association between suicidal ideation and anxiety, stress, and acute depression. Test clarified that people with serious mental health problems are more likely to have suicidal thoughts that would test in suicide if they were not involved [12-13]. Jayervand et al have made many attempts to demonstrate predicting suicidal concept growth, psychological well-being involves self-acceptance, quality interaction with others, a sense of control and intent in life, and the capacity to deal with complex circumstances play a very important role. The interpersonal psychological theory clarified that when overcome by two major psychological factors, such as burdensome and social isolation, individuals eventually formed the idea of suicide [14]. These two psychological states trained a person to develop capacity to function to commit suicide.

According to the hypothesis, if the factor of burdensome and social isolation also does not therapeutically overcome, people who have previously attempted suicide have a better risk of committing suicide in the future. In addition, Integrated Motivational Volitional demonstrated that suicidal behaviour was the result of interplaying an individual purpose with the sensation of being stuck in disruptive loss or embarrassment. Theory proposed that, in that case, people would use suicide as a better means of fixing their whole situation [15]. Lastly, the Three-step Hypothesis suggested that the suicidal behaviour was the product of suffering and hopelessness mixed. This contemporary hypothesis proposed suicide should be regarded with distinct prediction and justification in two different systems. There has been an accumulative analysis in recent decades, in finding how emotional intelligence is strongly associated with well – being of a subject and mental health [16]. In addition, a recent study showed consistent observational proof on the correlations between suicidal risk and Emotional Intelligence in various groups including adolescents. Low EI in school refers to activities like school

bullying, and describes engagement in violent activities. In addition, due to its associations with various aspects of human emotions, EI model in the field of human well-being, growing interest has been gained[17]. In summary, EI is recommended as a human mechanism that may shield youth from the effects of trauma and mitigates the detrimental psychological effects of victimisation on emotional well-being.

What Connects Them

Impaired mental health represents known deficiencies in determining risk factors related to suicidality, which increase the probability of suicide. Previous studies have identified the predictive impact of psychological risk factors on the risk of suicide in college students or demographic samples in this sense. There have been studies of the deleterious effect of psychiatric symptomatology on suicidality over time. A broad correlation between symptoms of EI and psychological disorder indicates that the subjective ability to deal with emotions is linked to the social change and adaptation of individuals [18]. Furthermore, EI was shown to engage itself in mechanisms of psychiatric discomfort beyond the control of personality traits. Emotionally aware people control their feelings better than those with lower IE, according to the EI system. Thus, individuals with higher EI prefer to follow more adaptive regulation techniques, which in turn are adversely correlated with detrimental impact and psychological distress. In comparison, emotional dysregulation is considered a mechanism that leads to affective deficits dependent on suicide risk and nonsuicidal self-injury [19]. While researchers based their efforts on identifying the emotional capacity's buffering function to consider the associations between psychological risk factors such as depression, stress, and idea of suicide, no study investigated beyond the immediate relations between these factors. Research is needed to delineate the mechanisms by which Emotional Intelligence, suicidal thoughts and actions should be reduced as a preventive factor. [20].

Does Emotional Intelligence

Given the fast and global dissemination of a tragedy such as the Corona virus (COVID-19), which has infected millions of lives worldwide, in the form of heart attacks, obsessive actions, fear, and terror, not just physically but also emotionally. It is to be blamed for the too much confusion the lack of confirmed evidence and circulating theories [21]. Not only are individuals physically vulnerable to disasters but they are also mentally vulnerable. Each major incident would produce effects on the mental health of people who are directly involved. Models predicted that up to 80 percent of those afflicted by a crisis may suffer moderate short-term depression, 20-40 percent a medium-term psychiatric illness, and a long-term clinical concern would be left at 5 percent. Luckily, the rest of people affected will survive without therapeutic assistance. Social isolation in a group or society is characterised as insufficient quality and quantity of social interactions with other people. It is said to have a major detrimental impact on mental health. On the other hand, loneliness is a subjective painful emotional condition which occurs as a result of reduced social interaction. It's also related to bad interpersonal interaction [22-23].

Quarantine in all classes of people has contributed to increased risks of isolation. One of people's first reactions to the pandemic is one of terror and anxiety one contributes to insomnia and panic. Fear of individuals getting tainted and poisoned has contributed to the introduction of such ritualistic behaviours. This, in fact, has contributed to the exaggeration of signs of obsessive-compulsive disorder in patients, such as frequent hand washing, wearing masks, and the use of sanitizers. Studies have also found that loneliness and depression are closely linked. They reported isolation in both men and women is correlated with depression, but later they found correlation to be greater for men. Stravynski and Boyer conducted a study in Quebec and found that the association between depression and suicidal ideation is strong. Sadly, after the COVID-19 crisis, there is a high likelihood of a rise in suicides. The medical literature and mass media include numerous accounts of COVID-19-related suicides. Individuals with pre-existing medical problems are at increased suicidal risk, including mood, depressive and drug use disorders. Healthcare workers are at increasing risk of suicide as well. In the best of times, a career in medicine comes with a major burden. The coronavirus pandemic among healthcare professionals may dramatically increase mental health problems and suicides. The economic difficulties created by the pandemic of COVID-19 are likely to lead to a rise in suicides. Historically, an uptick in suicide deaths has always contributed to economic instability [24-25].

Discussion

EI measures can be helpful in order to improve the collection of appropriate emotion control techniques of the person. The improvement of emotional skills could assist to more social skill, which, latter is connected to therapeutic assistance. The link between suicidal risk and EI within a group of nursing students was examined by Aradilla-Herrero et al (2014) using the SRS and the Spanish variant of TMMS-24, respectively. Predictive role of emotional focus in suicidal risk was discovered in the linear regression study, while suicidal activity displayed a strong negative association with clarification and repair [26]. Research by Suárez and Ceballos (2012) conducted among the Colombia's Students from Psychology University again tested EI with the same instrument and suicidal ideation through the BSSI, shows a significant connexion between mental recovery and

suicidal ideation. However, with the other factors, no meaningful correlation was identified [27]. Ciarrochi et al.(2002), did an overall examination by ASIQ between the actual suicide thoughts and Emotional Intelligence. Data analysis found that in difficult circumstances, a stronger emotional experience was correlated of higher depression and suicidal ideation rate. Participants who ranked high on other people's thinking related to stress with a lower degree of suicidal ideation and depression [28].

The studies obtained a favourable relationship between the suicidal thought and emotional intelligence of studies using TMMS-24 questionnaire, which is compatible with previous findings. In comparison, emotional clarification and recovery are inversely related to suicidal activity in virtually all papers that use the same EI calculation [29].The explanations why emotional intelligence and its detrimental association with depression and harmful habits such as addiction to drugs can be attributed to its defensive ability. The role of EI in fostering optimistic feelings and resilience; the creation and continuation of close relationships; rather than maladaptive methods, the use of appropriate coping strategies. The perception of reduced emotional discomfort when faced with a crisis, the preservation of greater self-esteem and self-efficacy that mitigates the impact of adverse events, and as described above the increase in subjective well-being and life satisfaction [30].

There is a huge gap in the literature pertaining to the risk of suicide and emotional intelligence. Second, the processes and aspect of Emotional Intelligence which contributes to the thoughts and behaviours are unknown. Most of research's investigating EI self-report and suicidal risk factors were focused on observations from teenagers and college students. Studies investigating the connexions of health metrics and Emotional Intelligence, the importance of these effects must also be affirmed in more heterogeneous societies. Prevention activities, like EI preparation, will be important in this sense for people to receive assistance from the resources available [31]. This line of research needs significant consideration, considering the possible values of interventions for preventive treatment aimed at improving access to mental health services. EI programming may help people break the loop of more pessimistic and constricted negative thought associated with suicide risk, in addition to prevention services addressing classic suicide precursors such as mood dysregulation. In addition, complementary approaches by vocational or academic educational services could improve optimistic emotional states and, thus, the growth of physical training[32].

We also reviewed the current literature on the association between EI and suicidal behaviour in this systematic analysis, finding a total of 22 publications with significant findings. While several meta-analyses on the relationship between EI and various health indicators have previously been published, to our knowledge, no systematic study or meta-analysis of the variables analysed in the present study has yet been performed. According to the findings collected, a strong inverse association between this vector and suicidal behaviour was observed in nearly all the publications used as a self-reported estimate of EI by EQ-i, EIT, WLEIS, and EIS, with EI also being a good indicator of suicidal behaviour. The findings strongly agree with those found in the literature on the relationship between risk of suicide and EI, and the position of the latter as a protective factor. The explanations why EI has a defensive potential may be due to its detrimental association with stress and harmful habits such as drug misuse.

Limitations

It is worth noting certain shortcomings of this report. Firstly, the interpretation of the findings was made complicated by the fact that a separate theoretical model and, subsequently, different instruments were followed by each one. Furthermore, we do not know the impact size of the association between the two variables, so in the future it will be important to conduct a meta-analysis. Therefore, generalising the findings to such populations is more complex, although analysing the durability of results in the long-term is often difficult. Finally, only one study implemented an intervention, but there was no substantial association between both variables, considering the post-test increase in EI and suicide risk.

Conclusions

While WHO has suggested methods and recommendations for intervention that have proven effective (WHO, 2014), definitive programmes that discuss all facets of suicide, based on the age and characteristics of the population, must also be planned. In childhood and adolescence, the objective of preventing suicidal behaviour will be crucial, a period during which a number of interventions, including EI training, attention to mental disorders and related risk factors could be beneficial, and improving protective factors by developing programmes that could improve their effectiveness, such as 'Signs of Suicide

In conclusion, EI is a mental skill, according to the principle of Mayer and Salovey, with the implementation of action programmes such as RULER, it can be learned and improved. Additionally, the literature notes that it has been found that the EI portion plays a significant role as a preventive barrier against suicidal activity, regardless of age, ethnicity or EI equipment. That a new research field has opened up in which significant results are arising. When developing new suicide prevention strategies globally, this may be of concern.

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