THE INFLUENCE OF SOCIAL MEDIA ON SUICIDAL IDEATION: A SYSTEMATIC LITERATURE REVIEW

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Abstract

This paper aims to present the finding of social media usage on suicidal ideation based on the previous results by scholars. The article has further introduced the methodologies, which include search strategies, inclusion and exclusion criteria, selection strategy, and data analysis. This paper has concluded the findings of social media usage on suicidal ideation based on a sample of 25 articles. As a reflection of the present study, various articles with finding focusing on the association between social media and suicidal ideation among youth. The discussion section has also included previous findings on the usage of social media and suicidal ideation and a research gap which indicate the needs of the present study. A description of limitations for constructing this paper was included, which consists of various limitations issues during the process of writing this paper. Finally, based on previous findings, it is concluded that social media usage can influence the development of suicidal ideation among its user.

Keywords: social media, suicidal ideation, youth, systematic literature review

ARTICLE INFORMATION

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INTRODUCTION

Suicidal ideation, suicide attempt and suicide is a major public global health concern which are increasingly affecting and threatening the precious lives of today younger generation. It is reported that about 17% of youth in the United States alone are struggling and experiencing suicidal ideation or thoughts (Evans et al., 2017). This alarming phenomenon has resulted in the society to become extremely concerned about the mental health and the emotional well-being of the younger generation as this problem may further lead to other concerning issues like suicide. According to Nock et al. (2013), adolescent having suicidal ideation or thoughts often will lead to the development of suicidal behavior which turn results in an attempt on taking their own lives.

Based on statistics, suicide is noted as the second leading cause of death among people aging between 15 to 29 years old, and the leading cause of death among young women aged 15 to 19 (Klonsky, May, & Saffer, 2016). In addition, individual especially younger people are more susceptible to suicidal behaviour pattern as this vulnerable group are easily influenced by others suicidal attempt (Dunlop, More, & Romer, 2011). Moreover, the drastic changes of suicides rates over time across group of people and places has proven that it is difficult to combat this issues.

LITERATURE REVIEW

Concept and Study of Suicidal Ideation

The concept of suicidal ideation has been showed across various studies in different ways. Suicidal ideation is a term that broadly refers to thoughts of committing suicidal behavior or action (Evans et al., 2017). In another word, suicidal ideation refers to the thoughts or desire to perform self-injury or harm regardless of intent to die. According to (Klonsky et al., 2016), the concept of suicidal ideation can be explained through the development of the ideation-to-action framework. The framework suggests that there are two (2) distinct process involved with different explanation and factors that lead to suicidal ideation in individual which is (a) the development of suicidal ideation and (b) the progression from ideation to suicide attempts. The difference between this framework and the traditional approach of interpersonal theory, is that the framework addressed the predictors or risk of ideation from predictors of ideation to behavior separately. In addition, to better understand the suicidal ideation concept, it is good to understand all the three theories that is included within the knowledge of the ideation-to-action framework.

Table 1: Suicidal theories within the ideation-to-action framework

<table>
<thead>
<tr>
<th>Theory</th>
<th>Main factors causing suicidal ideation</th>
<th>Main factors causing progression from ideation to attempts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal (Joiner, 2005)</td>
<td>Perceived burdensomeness and thwarted belongingness</td>
<td>Acquired capability for suicide</td>
</tr>
<tr>
<td>Integrated motivational-volitional (O’Conner, 2011)</td>
<td>Defeat and entrapment (facilitated by threat and motivational moderators)</td>
<td>Capability, impulsivity, planning, access to means, imitation, and other volitional moderators</td>
</tr>
</tbody>
</table>
In most cases, construct such as psychological symptoms (depression and anxieties), various mental disorders issues, impulsivity, hopelessness and other form of emotional distress is the main predictors that lead towards the development of suicidal ideation in individual. In the recent year, the three step theory (3ST) of suicide has emerged to help understand the suicidal ideation prediction. Based on the 3ST theory, there are three important variables namely pain and hopelessness, connectedness and capacity to perform suicide which able to predict the suicide prediction (Klonsky et al., 2016). The 3ST theory has further designed a testable model to identify the prediction of suicidal ideation. Following shows the Figure:

1. Are you in pain and hopelessness?  
   **Suicidal ideation**  
   NO  
   No ideation  

2. Does your pain exceed your connectedness?  
   **Strong ideation**  
   NO  
   Modest ideation  

3. Do you have the capacity to attempt suicide?  
   **Suicide attempt**  
   NO  
   Ideation only

**Fig 1. The three-step theory (3ST) model of suicide (Klonsky & May, 2015).**

Based on the 3ST model, the first leading cause of suicidal ideation in individual begins with experiencing pain (Klonsky & May, 2015). Pain subjectively will happen to lower individual desire to continue their everyday live. However, this model explained and showed that pain alone will not lead to ideation of suicide. It is both the powerful combination of pain and hopelessness that will lead towards the development of ideation by an individual. The final step of the 3ST model is the condition or capacity of an individual that drive them to attempt their ideation of suicide.

**Concept and study of Social Media**

Social media or social networking sites (SNS) such as Facebook, Twitter, Instagram and many others has unknowingly created an alarming phenomenon recently. It has been found that this internet based activity are one of the most significant predictors for the development of serious psychological problems like depression, stress and suicidal ideation. Social media in this study refers to the internet-based applications that allows its user to interact, connect, and build an online community by creating, viewing and sharing user-generated content that is easily accessible (Kaplan & Haenlein, 2010). In addition, the usage of social media has been increasing drastically when the sites decide to employ mobile and web-based technologies in order to create a highly interactive tools in which individuals can easily access to the public content and information available.

Kietzmann, Hermkens, McCarthy, and Silvestre (2011), developed a framework of seven (7) building blocks to help explain the functionality the social media namely identity, conversations, sharing, presence, relationships, reputation, and groups. The framework illustrates the blocks to make sense of social media usage and to understand the audience social media needs. Figure 3 shows each building block of the social media together with each component explanations. All the component in the framework are not necessarily present in all social media activity by the users, however, this building block helps to understand the social media users experience and the implication of social media usage toward the users itself. Figure 3 shows the building blocks of social media functionality based on the authors:

**Fig 2. The building blocks of social media functionality (Kietzmann et al., 2011).**

**METHODOLOGY**

**PRISMA**

Systematic reviews and meta analyses are becoming increasingly important in identifying literature evidence regarding the relationship between variables. These systematic methods were used frequently in order to synthesize the findings of previous literature by scholars in order to support the nature of a particular relationships (Moher et al., 2015). Moreover, researchers used this method in order to keep up with their field of study and as a starting point to build up a new study by obtaining latest information related to their respective discipline (Moher, Liberati, Tetzlaff, & Altman, 2010). Thus, this study was guided by a systematic protocol often referred to as Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA).

PRISMA is a systematic approach used by researchers in conducting a protocol literature review. This method facilitates researchers by ensuring that a review is thoroughly planned from the start to the end, helps researchers in identifying potential issues or problems regarding the topic, gives a better understanding to readers regarding the selection process and to minimize and overcome issues related to publication bias (Knoebloch, Yoon, & Vogt, 2011; Moher et al., 2010)

**Literature Search**

In order to construct the literature review, the researcher have benchmark numerous literature by the scholars as a standard to follow (Evans et al., 2017; Klonsky et al., 2016; Kowalski, Giumenti, Schroeder, & Lattanner, 2014; Nock et al., 2013). In order to identify relevant information regarding the research studies, there were several strategies used by the researcher. For the very first step, the researcher conducts a broad search through electronic sources such as Google Scholars, Research Gate, Science Direct, Scopus, Web of Science and other relevant sources which provide relevant research article.
The researcher has used various keywords to search in order to match the context of the study. Due to different terms or keywords used by previous scholars, the related key terms that have been searched and included were social media, social networking, social networking sites, suicidal ideation, suicidal ideation, suicidal thoughts, suicidal intention and youth in order to identify all related published articles between 2010 to 2019. Apart from that, the researcher also included the table to show the article collection from various sources. Table 2 represent the sources where the researcher looks for the article. The total sample article was calculated also (N=25).

<table>
<thead>
<tr>
<th>Sources</th>
<th>Number of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of child psychology and psychiatry</td>
<td>1</td>
</tr>
<tr>
<td>Computers in Human Behavior</td>
<td>2</td>
</tr>
<tr>
<td>Comprehensive Psychiatry</td>
<td>1</td>
</tr>
<tr>
<td>Archives of Suicide Research</td>
<td>1</td>
</tr>
<tr>
<td>Journal of Dual Diagnosis</td>
<td>1</td>
</tr>
<tr>
<td>American journal of public health</td>
<td>1</td>
</tr>
<tr>
<td>Journal of Youth Adolescent</td>
<td>1</td>
</tr>
<tr>
<td>Others</td>
<td>17</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>25</td>
</tr>
</tbody>
</table>

**Inclusion/Exclusion Criteria**

The present literature review also consists of inclusion and exclusion criteria during the article sourcing. Studies that met with the following criteria are selected as references for the present literature review:

- a) Literature review and empirical study regarding social media usage and suicidal ideation.
- b) Social media usage studies that conducted among youth.
- c) Suicidal ideation studies that is emphasized on youth
- d) Studies instructed in English language
- e) The studies that included the research instruments for suicidal ideation and measurement of social media usage.
- f) Prioritize studies from year of 2010 and onwards to obtain the latest information (exception for certain studies that match the context of the research title)
- g) Systematic or integrative literature review with psychological problems related.

The exclusion criteria also included in the present literature studies in order to avoid unnecessary data or information which is unreliable and invalid. Following criteria were listed as exclusion criteria for the researcher to exclude the article or database:

- a) Thesis or dissertation that is unauthorized or unrecognized
- b) Study which instruct in Malay language
- c) Study of suicidal ideation or behaviour which is not the outcome measurement

**Selection Strategy**

There were four (4) steps included for selection strategy in terms of article selection which begin from a broader search through

**Search**  |  **Query**
--- | ---
Articles on the effect of social media on suicidal ideation | (TITLE (social*media) OR (social*networking) OR (social*networking sites) AND TITLE (suicidal ideation) OR (suicidal intention) OR (suicidal thought))

**DATA ANALYSIS**

The aim of conducting data analysis was to identify the knowledge in relation to social media usage and the development of suicidal ideation. As the initial step, all studies that is related to social media and suicidal ideation as outcomes will be included. Based on previous studies, this paper will include studies with relevant antecedents such as following:

- a) Social Media; or
- b) Social Networking; or
- c) Social Networking Sites

Based on the discussion earlier, suicidal ideation as justified with many previous scholars, is considered as the main outcomes without any additional dimensions. As the concept of suicidal ideation is broad, the paper will consider the relevant outcomes such as the following:

- a) Suicidal ideation; or
- b) Suicidal thought; or
- c) Suicidal intention

Table 3 shows an example of the query strings that have been used in the Scopus database search. The reason is due to different scholars might select different wording used by authors for suicidal ideation in their study. Thus, a wider view is needed in order to analyse the data.
RESULTS

Descriptive Analysis

Through a thorough systematic search and selection process, a total of 25 articles were published between 2010 and 2019 on the relationship between social media and suicidal ideation among youth. The first published articles regarding the relationship between social media usage and suicidal ideation within the timeframe of 2010 and 2019 was by (Hinduja & Patchin, 2010) in 2010. Starting from year 2010, there was a consistent number of related publications for each of the following year up to 2019. However, the highest number of articles published were in 2013 and 2018 with five (5) articles for each respective year (Bauman, Toomey, & Walker, 2013; Berryman, Ferguson, & Negy, 2018; Carey et al., 2018; Fu, Cheng, Wong, & Yip, 2013; Litwiller & Brausch, 2013; Medrano & Lopez-Rosales, 2018; Medrano, Lopez Rosales, & Gúmez-Guañix, 2018; Park, Hong, Park, Ha, & Yoo, 2013; Sami, Danielle, Liihi, & Elena, 2018; Won et al., 2013)

In terms of research designs used, most of the researcher utilized a quantitative research designs approach while conducting the studies including cross-sectional and longitudinal designs as shown in Appendix A. In addition, most of the studies sample was greater than 50 where the least number of respondent was 56 and the highest was 9510 which involved high-school children in Taiwan. However, some of the studies included used broad keywords search related to suicide in social media and review report cases of suicidal ideation on social media platform such as Facebook and Instagram.

The annual and cumulative number of research articles from year 2010 to 2019

![Graph showing the annual and cumulative number of research articles from year 2010 to 2019](image)

**Fig 4.** The annual and cumulative number of research articles on the effect of social media usage on suicidal ideation from year 2010 to 2019

Linking Social Media to Suicidal ideation

Although social media is a comprehensive platform and tools for communication among people especially youth, it has also been associated with numerous problems related to its extreme and addictive usage. According to (Medrano & Lopez-Rosales, 2018), the addictive behaviour to social media will lead to the development of negative psychological characteristic by an individual. Based on few past studies, it has been found that the extreme usage of social media or network lead to mental health issues including depression in individuals (Medrano & Lopez-Rosales, 2018; Meena, Soni, Jain, & Paliwal, 2015)

The usage of social media somehow can affect the emotional aspect of an individual including increasing the occurrence of negative emotions that has been associated to mental health issues like depression. On one hand, depression in turn can lead to the development of anxiety, feeling of despair and suicidal ideation among individual (Oliffe, Ogrodniczuk, Bottruff, Johnson, & Hoyak, 2012). In addition, it is noted that one of the main risk factor for suicidal ideation include psychological symptoms.

Moreover, according to Aboujaoude (2016), one important characteristic of suicidal ideation include impulsivity which also happened to be one most noted aspect of problematic usage of the internet. Thus, there is without doubt that there are association between the usage of social media and the occurrence of suicidal ideation among the network users (Lin et al., 2014; Park et al., 2013). In addition, there is quite an alarming number of cases reported whereby the occurrence of suicide attempt by individual is positively related to unhealthy social media activity such as cyberbullying victimization (Bauman et al., 2013; Hinduja & Patchin, 2010; Kowalski et al., 2014; Litwiller & Brausch, 2013; Schneider, O’donnell, Stueve, & Coulter, 2012) and sexting (Medrano et al., 2018)

According to previous findings, the impact of cyberbullying via social media is negatively stronger especially related to suicidal ideation compare to the traditional way bullying (DeSmet et al., 2014; Van Geel, Vedder, & Tanilon, 2014). Moreover, the extensive usage of social media may lead to sleep disturbance among users that eventually lead towards the development of suicidal ideation or behaviours (Sami et al., 2018). Therefore, it is clear that there is a link between the usage of social media towards the development of suicidal thoughts.

DISCUSSION

Social Media and Youth Suicidal ideation

Many past study in regards to the relationship between social media and the occurrence of suicidal ideation or behavior among youngster. The present study intends to identify the influence of social media usage on the development of suicidal ideation among youngster. As discussed in earlier, the development of suicidal ideation is one of the key concerns by the society as this may lead towards suicide attempt by the ideators. Study shows that the usage of social media brings upon a significant negative impact towards the development of suicidal ideations among youngster (Berryman et al., 2018; Coppersmith, Leary, Whyne, & Wood, 2015; Dunlop et al., 2011; Lehavot, Benz-Zeev, & Neville, 2012; Luxton, June, & Fairall, 2012).

A research conducted among university students in the United States among 471 undergraduate students found out that the usage of social media by these young adults was a predictive of suicidal ideation among the sample of study (Berryman et al., 2018). The findings are consistent with another study where the usage of social networking sites is associated with increasing suicidal ideation among sample of study age between 14-24-year-old (Dunlop et al., 2011)

The present study aims to investigate the effect of social media activity towards the suicidal ideation development. The rationale of this study is due to the existence of many previous study in which finding shows that the outcomes of suicidal ideation somehow is influenced by the usage of social media among its users. Thus, there is a need to conduct study in to explore the relationship between social media usage and the occurrence of suicidal ideation among its users. Table 4 below represent the development of each of the variables for the present study:

<table>
<thead>
<tr>
<th>Table 4. Determinants of variable for the present study</th>
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</table>

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RESEARCH GAP

The impact of social media on suicidal ideation among young people especially the those in school settings age between 15-18-year-old is also an important group to conduct study in order to investigate their usage of social media and its impact. Although there is study conducted among youngster setting that shown the impact or influence of social media usage on suicidal ideation, however, the study setting is less likely found in Malaysia context. Thus, this shown a clear research gap in between the two variables and needed to be further study in this particular context. As such, the present study has proposed to identify the influence of social media usage towards suicidal ideation or behavior among youth in Malaysia.

FUTURE DIRECTION

This systematic literature review is aims to provide an insight in terms of the social media usage and the development of suicidal ideation or behavior among young individual. Based on the synthesize outcomes and analysis form all the reviewed articles on the impact of social media usage on the development of suicidal ideation among youth, this study strives to investigate the present study and act as a potential guideline for future research related to this field. Most of the previous studies outcomes clearly shows a strong and consistent effects of the social media usage on the development of suicidal thoughts among youth. However, there are still lacking evidence that strongly support the association between the two variables as in context of Malaysian youngster. Moreover, database accessibility has also constraint the researcher to further investigate the findings of previous studies due to unauthorized personnel access of article.

In addition, lacking of qualitative approach or mixed-methods research design was also observed in most of the reviewed studies where most scholars preferred to conduct quantitative approach to determine the research outcomes. Thus, future researcher should strictly consider to implement a qualitative or mixed-methods research designs because these methods enables researcher to gain more information, insight and understanding about the underlying factors related to this issues (Chua, 2012).

Suicidal ideation is a major public global health concern which are increasingly affecting and posing threat towards the psychological well-being and the precious lives of today’s generation, especially the vulnerable group of youngsters (Choi & Noh, 2019). The diverse negative significant impacts of suicidal ideation on both aspects of individuals well-being and its influence on the surrounding society require further advanced study and analysis. In addition, such study will provide a great insight and guidance towards understanding the occurrence of suicidal ideation and its affect not only to scholars, but also to those related to this field such as psychiatrist and psychologists.

CONCLUSION

As a conclusion, the aim of this paper is to review the impact of social media on suicidal ideation among youngster user of the network. Though the literature review has completed with a body of knowledge from many previous scholars, however, the actual finding is yet to be completed. The knowledge of social media usage is important, especially among young users, who easily can access to this networking sites at all time with very limited restriction to the content or information they’re receiving online, which in turn result in the development of suicidal ideation or behavior. As such, further empirical research is needed in order to explore more regarding this topic.

REFERENCES


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