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REASONS FOR SELF-MUTILATING BEHAVIOR IN THE 21ST CENTURY

A Thesis Submitted

in Partial Fulfillment

of the Requirements for the Designation

University Honors

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Reasons for Self-Mutilating Behavior in the 21st century

This Study by: ZhiQing Yaw

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has been approved as meeting the thesis or project requirement for the Designation

University Honors with Distinction or University Honors (select appropriate designation)

_____ _____

Date Dr. Jiuqing Cheng, Honors Thesis Advisor, Psychology

_____ _____

Date Dr. Jessica Moon, Director, University Honors Program

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Abstract

Self-harm, also known as Self-Mutilating Behavior (SMB) has emerged as a major concern in this era of globalization as the prevalence rate of self-mutilating behavior has increased drastically. The statistic usually depends on self-report as SMB are often done in private. There was a total of one hundred and six participants were recruited from Amazon Mechanical Turk (mTurk) and each participant was given $1.00 for their time. The survey was administered via Qualtrics. In the result, 90 participants have reported to be involved in SMB and 67 were males while 28 were females. The age range of the participants were from 20 to 67. The common SMB that was engaged was cutting, overdosing, torturing oneself with self-defeating thoughts, etc. SMB is also commonly started during adolescence (40%) and young adulthood (51.1%). The study has identified the reasons for SMB including expressing internalized emotions and following someone else's footsteps. Moreover, the reasons for SMB were positively correlated with the behavior of SMB. Furthermore, participants who were clinically diagnosed reported more SMB compared to those who were not. People who were dissatisfied and felt hope in their treatment also found to have more SMB (-.614). Therefore, it is essential to spread awareness about SMB to educate the public. There are also resources available that could help people who are suffering from SMB, such as social support, therapies, counselling services, and as well as non-western interventions. The findings of this study have to be seen in light of some limitations that could be addressed in future studies.

Keywords: Self-Mutilation Behavior, Suicidal Self-Injury, Non-Suicidal Self Injury, Suicide

Literature Review

Introduction

Self-mutilation has emerged and became a major concern in this era of globalization as the prevalence rate of self-mutilating behavior has increased drastically in the recent years. SMB is found not be an abnormal behavior diagnosed by specific symptoms but rather it is a symptom of various psychiatric diagnoses, such as anxiety and depressive disorders, substance abuse, eating disorders, post-traumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD) and personality disorders, with borderline personality disorder occurring predominantly (Cipriano, Cella, & Cotrufo, 2017; Lang & Sharma-Patel, 2011). Several definitions of this phenomenon exist. In fact, researchers and mental health professionals have not agreed upon one term to identify the behavior. Self-harm, self-injury, and self-mutilation are often used interchangeably. Self-mutilating behavior (SMB), also referred to as self-harming behavior (SHB) and self-injury, is defined as deliberately harming one's own body that causes tissue damage or leaves marks on the body more than a few minutes (The Oaks, 2018). The common ways of SMB are cutting, scratching, hair pulling (also known as trichotillomania), carving, or burning their skin, hitting, or punching themselves, or even banging their heads against a wall (Mayo Clinic, 2018). Although SMB may occur on any part of the body, the most common parts are hands, wrists, stomach, and thighs. SMB usually develops as an attempt to cope with emotional distress, overwhelming despair, anxiety or emotional numbness. This behavior is also sometimes used as a form of self-punishment, and a way to outwardly express inner pain. In addition, there are three types of SMB: suicidal self-injury (SSI), Non-suicidal Self Injury (NSSI) and suicide.

As SMB are mostly done in private, the statistic depends on self-report. According to DeAngelis (2015), reported self-injuries are lesser in adults, compared to children and adolescents.

On top of that, the prevalence of SMB was found inconsistent in terms of gender differences. Some studies suggested that there is a higher prevalence in women while some other studies show no differences (Bresin & Schoenleber 2015). For instance, People who engage in suicidal self-harm are more likely to be young women compared to those who engage in NSSI (Ougrin, 2012). The gender differences in SMB are uncertain as males may present and express themselves differently compared to women, which thus, be underreported. In England, there were 1320 adolescents that engaged in NSSI between the year of 2011 and 2013 and 322 out of 5506 adolescents reported self-harming in the community in 2015 (Geulayov et al, 2017). On the other hand, the rate of prevalence of NSSI among the population in the States was estimated to be 17% among adolescents, 13% among young adults, and 5.5% among adults while the lifetime rate of prevalence SSI is estimated to be 2% to 4% (Nock et al, 2013). Furthermore, suicide is the 10th leading cause of death in the States (American Foundation for Suicide Prevention, 2020). Additionally, there were 48,344 individuals died by suicide in 2018 and 1,400,000 attempted to suicide. Moreover, men were 3.56 times more than women to die by suicide as white males accounted for 69.67 percent of suicide deaths in 2018 (AFSP, 2020). The rate of suicide is the highest in middle-age white men in particular.

As the amount of people who practice SMB has skyrocketed in recent years, it is undeniable that the accessibility of the internet and social media has potentially influenced the younger generation on the idea of SMB. Research has shown that ninety percent of people who engage in self-harm begin during adolescent years and young adults (Mahoney, 2018; Klonsky, Victor, & Saffer, 2014). The population of people who self-harm has increased by 8.9 percent in the 2000s (Plante, 2007). Furthermore, most of the people who do research on this topic tend to focus on adolescents (Scoliers, 2009). This is because the brain of adolescents is still not mature enough

and as a result, they could not make a rational decision of their behavior. According to Feldman (2017), the prefrontal cortex is not fully developed as the function of the part of the brain is to permit individuals to evaluate, think and make sophisticated judgements, and provide impulse control. Due to the immaturity of the brain, it cannot inhibit impulses and control desire and emotion. Thus, youths have more potential to involve themselves in unanticipated injury during the process of self-harming due to the other possibility under the presence of severe issues such as suicidal thoughts and behavior (Llyod-Richardson et al., 2015). Furthermore, approximately one percent of the population among teenagers had an unconscious habit of self-harming (Schneider, as cited in Larsen, 2009). This could cause more complications later in life as old habits are often very difficult to change and forming new habits are equally as difficult.

Community studies have also shown that NSSI has become a common behavior for the children who are transitioning to the adolescent stage. They start their behavior at the age of 12, reaching the peak at the age of fifteen and decline when they reach the young adulthood stage (Plener et al 2015; Nock, et al 2006). In the United States, people often refer to self-harming as NSSI while people in Europe refer to the term as deliberate self-harm (DSH) (Hagell, 2013). According to Llyod-Richarson et al (2015), NSSI has been included in the fifth edition of the Diagnosis and Statistical Manual of Mental Disorder (DSM-5) as it is a condition that requires further research before considering it as a diagnosis. People who are usually involved in NSSI have two expectations: to seek for comfort and eliminate the negative feelings or to alleviate emotion and seek pleasure. NSSI is associated with a number of correlates. Research has shown that NSSI is associated with some psychiatric disorders such as borderline personality disorder (BPD), substance use disorders, anxiety disorders, multiple life stressors, aggression/impulsivity, major depressive disorder (MDD), suicidal ideation (SI), and suicide attempts (SA) (Coppersmith,

Nada-Raja,& Beautrais, 2017; Hamza, Willoughby, & Heffer, 2015; Sevecke et al, 2017; Townsend et al., 2016) NSSI has also appeared to be similar across different countries (Muehlenkamp, Claes,& Havertape, 2012).

On the other hand, suicidal self-harm (SSH), also known as suicide attempt (SA), is a major indicator for those who are at risk of complete suicide. In the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), the distinction between NSSI and SA is highlighted in the section of conditions for further study, with NSSI and suicidal behavior disorder classified as distinct disorders (Kapur, Cooper, O'Connor, & Hawton, 2013). There were also a lot of studies that found that depressive symptoms, Major Depressive Disorder (MDD), and anxiety symptoms are strongly associated with SA (Bauer, Albanese, Macatee, Tucker, Bernat, Schmidt, & Capron, 2020). Hence, people who practice SSH are more likely to comorbid severe mood disorders and psychiatric disorders compared to those who practice NSSI.

The distinction between NSSI and suicidal behavior is not always clear in the terminology used as there is a lack of clarity that illustrates their conceptual proximity. However, both NSSI and SSI are extremely dangerous in nature, given that NSSI increases the risk for future SA. However, SSI differs from NSSI in a few distinct ways (Andovers & Gibb, 2010). One of the main differences is the interpersonal theory of suicide, which suggested the presence of expression of intention, suicidal desire and acquired capability of suicide, such as purpose and fearlessness about death which may lead to suicidal behavior (Huang, Rebeiro, & Franklin, 2020). Individuals who have suicidal behavior also tend to experience higher level of psychological pain, severe life stressors and mental health disorders that cause them unbearable pain and suicide is their way to end their pain. Suicide attempts usually come from despair, hopelessness, and worthlessness. On the contrary, individuals who engage in NSSI to cope with their feelings and stressors (Discovery,

2019). The pain or scars from NSSI are seen as a remembrance that they are still alive and experiencing emotional numbness and disconnected from the world. Moreover, people who involved themselves in NSSI have certain expectations: to find comfort from the unforeseeable situation, to deal with interpersonal difficulties and to seek pleasure (LLyod-Richarson, Lewis, Whitlock, Rodham, & Schatten, 2015). On top of that, it is also very important to note the degree of complexity and severity. The method used and the level of damage and lethality also differs between NSSI and SSI. The methods used in SSI are much more lethal and damaging to the body. SSI is more lethal than NSSI standard methods.

The prevalence rate for people who have psychiatric disorders to engage in SMB are higher compared to the people who do not have a psychiatric disorder. According to Sansone and Sansone (2010), women with borderline personality disorder (BPD) who were being treated in the psychiatric setting has reported engaging in SMB. 41% of participants with BPD reported cutting themselves, 52% hitting themselves and driving recklessly, 44 % banging their heads, 22% losing a job on purpose, and 11% purposefully exercising an injury. Moreover, people with eating disorders (EDs) have an elevated risk for both non-suicidal self-injury (NSSI) and suicide compared to the general population (Dodd et al, 2017). For example, Binge eating was found to be a predictor of depression, which in turn was found to be related to NSSI frequency, suicide attempts and suicide ideations. Furthermore, ruminations were also found to mediate a relationship between depression and suicide ideations (Sagiv & Gvion, 2020). On top of that, eating disorder that is associated with a high risk of suicide attempt is Anorexia Nervosa (AN) (Clife et al, 2020). There is a complex connection between self-mutilation and eating disorders because there are people who were involved in SMB who have eating disorder symptoms, such as purging, extreme fasting, and use laxative to get rid of the food in the body. However, the relationship between SMB

and other mental disorders such as BPD and EDs is still unclear, further investigation and research should be done in the future.

SMB is associated with the psychiatric disorders which involve self-destructive tendencies and/or those disorders which are attributable to trauma (Lang & Sharma-Petel, 2011). Therefore, the purpose of this study is strived to learn and have a greater understanding of this hazardous phenomenon. With the knowledge of SMB, we are able to help those who are struggling and dealing with problems that may lead them to engage in SMB and potentially decrease prevent more death by suicide.

Methodology

Participants

Participants were recruited from Amazon Mechanical Turk (mTurk) after the study was approved by IRB for data collection. To be eligible in the study, the participants must be residing in the States and 18 years old and older. As a result, 106 participants were enrolled in the study and each participant was given $1.00 for their time.

Materials and Procedures

The survey was administered via Qualtrics. It takes approximately ten minutes to complete. The data obtained in the study will be based on the participant's experience and context. Therefore, the data collected may be universal and applicable to the other people. Furthermore, the survey is confidential. Therefore, participants' names were not requested. However, demographic information such as age, race and gender were requested. As the study is voluntary, participants can choose not to answer some of the questions. The study risk was minimal, although participants may have felt some discomfort when answering questions regarding their past or present behaviors. The following questionnaire was completed:

General questions. The questions that were to understand the participants' experience in SMB. The first question was a yes or no question and the second question was a follow up question for the first question, with four options. The following questions were:

(1) Have you engaged in self-mutilation behavior?

(2) If yes, when did you start engaging in self-mutilation behavior? (Childhood, adolescence, young adulthood, others)

Self-Harm Inventory. The inventory was a modified version based on the one that was used in Sansone and Sansone (2010). Participants were asked to recall on their SMB such as

overdose, banged on their head on purpose, cut themselves, stretched themselves on purpose, abused prescription medication, etc. There are 14 items on this inventory and the participants are also given the opportunity to list the behaviors that were not mentioned in the inventory. Participants responded in a five-point Likert scale with 1 = never and 5 = always.

Reasons for self-mutilating behavior. Participants were asked to choose and rate the reason that they engage themselves mutilating in a seven-point Likert scale with 1 = never and 7 = always. There are 9 items in this subscale, which includes constantly thinking about own negative behavior, distract oneself from negative feelings such as sadness, loneliness, anxiousness, to punish and torture oneself for something one has done wrong, curious how it feels, etc. There was also an extra question for the participants to list out the reasons that they engaged in SMB that was not listed in the questionnaire.

Diagnoses. These questions were to understand the participants' history of their diagnoses and as well as their perception of their mental health. The following yes or no questions that were included in this section were:

(1) Do you think you have a mental health condition? (without any clinical diagnosis)

(2) Have you clinically diagnosed with psychiatric diagnosis? (e.g., depression, anxiety, bipolar personality disorder, etc.)

Treatment History. Questions that were asked to understand the participants' treatment history if there was any. All the questions were very straightforward yes or no questions. The following questions were:

(1) Have you received any psychiatric diagnoses and treatment?

(2) Have you felt hopeless or dissatisfied with the treatment you have received?

(3) Have you been non-compliant to the treatment?

(4) Are you receiving any treatment(s) now?

Protective factors. Protective factors are characteristic at the biological, psychological, family, or community level that is associated with or reduces the negative impact of a risk factor on problem outcomes. Those questions are to identify if the participants have any factors or aspects in life to keep them and their life on track. The participants were required to respond to those 7-point Likert scales (1 = never and 7 = always).

Demographic variables. After completing the questionnaire. Participants were asked to report some of their general demographic information, including age, gender, and race. Gender was coded with 1 = male, 2 = female and 3 = others, while races were coded 1= white, 2 = black or African American, 3 = American Indian or Alaska Native, 4 = Asians, 5 = Native Hawaiian or Pacific Islander, 6 = Hispanic or Latino, and 7 = others.

Data Analyses

SPSS 24.0 was employed to perform analysis on descriptive statistics and correlations, as reported below.

Results

Demographics

One hundred and six participants took part in the survey. Across all participants, 90 (84.9%) participants had engaged in SMB, while 15 (14.2%) had not. The age range of the people who have reported their engagement and experiences in SMB are 20 to 65 years old, with a mean of 31.84 (*SD* = 8.57). In the data, it has shown that people who are older reported more SMB behavior compared to younger participants. There was also one participant who did not respond to this question. The following analysis was based on participants who have engaged in SMB. Therefore, the final sample size is 90. Across the 90 participants, 67 were males (74.4%) and 22 were females (24.4%). On top of that, 47 participants reported engaging in SMB were white (52.2%), 1 participant was black (1.1), 40 participants were Asians (44.4%), and 2 participants were Hispanics (2%).

Variable	Category	Frequency	Percentage (%)
Gender	Male	67	74.4
	Female	22	24.4
Race	White	47	52.2
	Black/ African American	22	1.1
	Asian	40	44.4
	Hispanic/ Latino	2	2.0

Table 1: *descriptive statistics of gender and race*

SMB and Reasons for SMB

The data has shown that the participants started SMB during their adolescence (40%) and young adulthood (51.1%). However, it is also important to note that there are 7 participants who had reported engaging in SMB during their childhood (7.8%). Furthermore, the data has also

showed that most of the SMB that was listed in the survey occurred at the frequency of "sometimes." SMB that seemed frequently engaged in by the participants were overdosing, cutting oneself, hitting oneself, scratched oneself, and torture oneself with self-defeating thoughts.

	Mean	SD	Maximum	Minimum
Overdose (in drugs)	3.20	1.34	5	1
Cutting oneself	3.27	1.30	5	1
Bang head on hard surface	3.07	1.26	5	1
Abused alcohol	2.98	1.37	5	1
Burned oneself	2.86	1.53	5	1
Hit oneself	3.22	1.36	5	1
Driven recklessly on purpose	3.07	1.35	5	1
Scratched oneself	3.16	1.37	5	1
Prevented wound from healing	3.06	1.46	5	1
Made medical situation worse	3.09	1.42	5	1
Promiscuous (i.e., had many sexual partner)	2.90	1.52	5	1
Set yourself up in relationship to be rejected	2.89	1.47	5	1
Abused prescription medication	2.88	1.47	5	1
Engaged in an emotionally abusive relationship	2.97	1.46	5	1
Engaged in sexually abusive relationship	2.84	1.57	5	1
Lost a job on purpose	2.99	1.49	5	1
Attempted suicide (NSSI)	2.65	1.49	5	1
Suicide thoughts with specific plan	2.76	1.47	5	1
Suicide thoughts without a specific plan	2.66	1.46	5	1
Exercised an injury on purpose	2.87	1.42	5	1
Tortured oneself with self-defeating thoughts	3.12	1.45	5	1
Starved oneself	2.88	1.42	5	1
Abused laxative	2.71	1.51	5	1
Binge eating	2.94	1.40	5	1

Table2: *descriptive statistics of SMB*

Overall SMB scores were also created by averaging across all SMB items. The SMB scores were correlated with the different reasons for SMB. It has appeared that the reason for SMB is

positively correlated with the behavior of SMB. In addition, it also seemed that all of the reasons for SMB have relatively high correlation (correlation coefficient >.5) with SMB. The reliability of SMB scale was calculated by using Cronbach's alpha and the value that was obtained was .98. This measure had indicated that the items that were measured were similar. The frequent reasons of participants who engaged in SMB was to express their emotions, follow someone's footsteps, peer pressure, and feeling of pleasure results from SMB. Following someone's footsteps refers to imitating or mimicking someone else's behavior, especially someone whom they look up to.

	Pearson Correlation	Sig (2-tailed)	N
Constantly think about own negative feelings	.605**	.000	77
Distract oneself from negative feelings	.704**	.000	77
To feel something physical, particularly when you are feeling numb	.667**	.000	77
To punish and torture yourself for something you have done wrong	.687**	.000	77
Express emotions that are otherwise embarrassed or reluctant to show	.752**	.000	77
To follow someone's footsteps	.782**	.000	77
Peer pressure	.758**	.000	77
Curious on how it feels	.704**	.000	77
Pleasure	.736**	.000	77
SMB avg	1.0	-	78

Table 3: *Correlations between SMB and the different reason of SMB*

SMB and Protective Factors

Furthermore, it was surprising to find that the results for the relationship between protective factor and SMB were positively correlated. Fear of death, engaged with a phone worker (such as phone counselling services, and teletherapy, etc.), and seeking help from therapists and counseling centers have a higher frequency of SMB compared to the other two protective factors.

	Pearson Correlation	Sig (2-tailed)	N
Identity reason for living	.572**	.000	78
Supportive social network or family	.340**	.002	78
Fear of death or dying due to pain and suffering	.694**	.000	78
Engaged with phone worker (phone counselling services, teletherapy, etc.)	.647**	.000	78
Seek Help from counseling center/ therapist	.617**	.000	78
SMB avg	1.0	.000	78

Table 4: *correlation between SMB and Protective factor.*

SMB Diagnosis and Treatment

Participants who were clinically diagnosed with psychiatric disorders and other mental illnesses have also reported more SMB compared to those who were not clinically diagnosed. Data showed that those who have received treatment had more SMB compared to those who did not have treatments. On top of that, people who were dissatisfied and felt hopeless in their treatment also found to have more SMB.

	Pearson Correlation	Sig (2-tailed)	N
Perceived mental health condition (without clinically diagnosed)	-.583**	.000	78
Diagnosed with psychiatric disorder (i.e., depression, bipolar personality disorder)	-.564**	.000	78
Received treatment in the past	-.594**	.000	78
Hopelessness towards current treatment	-.614**	.000	78
Noncompliant towards treatment	-.561**	.000	78
Currently receiving treatment	-.586**	.000	78
SMB avg	1.0	-	78

Table 5: *correlation between SMB diagnosis and treatment.*

Discussion

In the study, survey research was used as it involves collecting data from different participants. Survey is a qualitative and quantitative method with two important characteristics, which are self-reports and large sample size (Price, Jhangiani, & I-Chant, n.d.). With surveys, I will be able to collect a lot of information and insights, such as emotional feedback from different participants at the same time. Furthermore, it is also easier for the participants as it is easier to answer as the question will be straightforward and easy to understand. There are two types of surveys: Interview and questionnaires (Trochim, 2013). In this study, questionnaires will be used to collect data from all the participants.

This study has shown that SMB is a very severe problem as 90 out of 106 participants practice or engage in SMB in some ways. Majority people who engage in some form of SMB in subtle and private ways. Therefore, it is easier for an individual to involve themselves in SMB without other noticing. On top of that, men had reported more SMB compared to women in this study. There is a possibility that men had reported more in this survey because their identity remained anonymous after they have completed the survey. Therefore, they may feel more at ease to complete the survey. The number of men that engage in SMB tend to be underreported due to the differences in expressing emotions and other factors that may lead to men not feeling comfortable to report their SMB behavior. Furthermore, the samples were predominantly White, followed by Asian, Hispanics, and Blacks. According to Ghosh (2020), the majority of the U.S population is white, which stands at 60.1%, followed by Hispanics at 18.5%, Blacks at 12.2% and Asians at 5.6%.

From the data reported above, common SMB that were engaged in are usually physical, such as hitting oneself, cutting oneself, banging one's head purposely, etc. People tend to choose

SMB methods that are convenient, easy, and items that are easily accessible for them. Moreover, it is also important to note that there are also a huge number of people who torture themselves mentally by constantly thinking about self-defeating thoughts. Even though the other SMB that were listed in the study were not frequently used, it does not mean that other methods for one to hurt themselves are not valid. We have to keep in mind that the definition of self-harm and SMB is inflicting pain and torture one's body despite the methods that were utilized. Besides that, SMB may be comorbid with other psychiatric disorders like eating disorders. The particular reason for this circumstance is the data that eating disorders like bulimia nervosa, anorexia nervosa and binge eating disorder rarely occur independently of mental illnesses and other psychiatric disorders. There are other studies that have suggested that there is a correlation between NSSI and eating disorders. Therefore, people who engage in SMB may have more than mental illnesses.

There is no single reason that would lead one to self-injure. The common reason for people to engage SMB is due to peer pressure, a form of expression to distract themselves. Individuals that have poor coping skills and difficulty managing their emotions tend to have higher frequency in engaging in SMB. People use SMB to distract themselves because the intensity of the pain is greater than what they are feeling emotionally, they will temporarily forget the despair and ordeal that they are experiencing. Furthermore, people who use SMB as their coping mechanism and express themselves are more likely to be someone who has difficulty or dislike expressing themselves. When they are emotionally distressed, it is very likely for them to use self-harm as a method to express their helplessness. However, what is surprising from the data is that there are people who engage in SMB to follow one's footsteps. This has suggested that one may engage in a behavior regardless good or bad if they have someone that they look up to and are engaging in the behavior. This is because when one has a "role model" or a tendency to be like or act like the

person, it is more likely that they will engage in the behavior, including SMB. Additionally, previous studies may have suggested that people who find pleasure when they engage in SMB are more likely due to the reception of the brain. This is because research has suggested that the pain is found in the same brain region that is associated with pleasure (Leknes & Tracey, 2008). Thus, it is possible that people mistake pain for pleasure when they engage in SMB.

A protective factor is a characteristic at the biological, psychological, family, or community level that is associated with or reduces the negative impact of a risk factor or problem outcomes. People also tend to seek help from counselling centers or engage with a phone worker because these methods are the most advertised to seek help when one is in crisis. Furthermore, one thing that stood out is that the data for social support either from friends or family were relatively low compared to the other protective factors. This may be because the lack of social support or unwillingness to share the experience with others.

It is common for people to keep quiet about their SMB because there is an increase of stigmatization on people who engage in SMB as it is perceived to have certain notorious meanings such as selfish, crazy, “dumb”, worthless beings, etc. Another possible explanation is that because SMB is something that was not educated to the public, most of the people have limited knowledge on it, including why it is happening and how to help. Therefore, it is unlikely for people who have SMB to seek help from their social supports. However, social support can be very helpful in terms of helping one to grow mentally and physically as there were study that suggested that forming healthy social support can potentially lower the risk of suicide and reduce depressive and anxious symptoms (Kleiman & Liu 2013; Miller et al., 2015). However, it is important to note that correlation does not mean causation. The results that were collected may be just one of the factors that affect SMB and the protective factors.

It was also surprising to find that the correlation between SMB and the protective factor is positively correlated. This may be due to one's coping mechanism. When one is seeking help and engaging in other protective factors, this does not necessarily mean that they will stop involving in SMB as seeking for a protective factor may help people to relieve their emotional distress temporarily. On top of that, this phenomenon also may be related to behavioral addiction as early studies suggested that SMB are addictive because they exert control over one's lives and relieving (Victor, Glenn & Klonsky, 2011). There are also studies that found those with SMB especially NSSI often experience strong urges to self-injure (Washburn et al, 2010). Thus, this suggested that SMB may need to acquire treatment that is similar to addiction treatment.

According to table 5, people who are clinically diagnosed with psychiatric disorders tend to have more SMB compared to those who are not clinically diagnosed. There is a very high possibility for the comorbidity of SMB and other mental disorders as it was mentioned above in literature review where the rate of SMB is higher among people who have mental disorders (Sansone & Sansone, 2010). SMB was also predicted by having a lifetime diagnosis of Borderline Personality Disorder and Panic Disorder along with an early age of onset of Bipolar Disorder (Moor, Crowe, Luty, Carter, & Joyce, 2012). Individuals who felt hopeless and dissatisfied with their treatment are more likely to have more SMB may cause a lot of complication in the future because they will stop going for therapy and treatment, internal emotion may pile up and even though SMB is not usually a suicide attempt, it may increase the risk of suicide due to the emotional problem that has triggered one's SMB. It may also worsen the underlying mental disorders and as well as permanent scars and disfigurement of one's body.

Conclusion

SMB is a major and common clinical problem but unfortunately it is still poorly understood and arouses ambivalent feelings in the society. SMB, especially NSSI had a handful of empirical studies for decades. Evidence has also supported conceptualizing SMB as behavior for emotion dysregulation strategy and poor coping skills. Furthermore, general public tend to be generalized SMB and suicide as a single continuum, which caused a lot of misconception and stigmatization towards SMB. Therefore, it is very important educate the public about the difference between suicide and SMB and also the detrimental effect of SMB in general. Furthermore, we should also emphasize the importance of social support. Many studies have suggested that social support can promote positive outcomes even during stressful conditions, including lower risk for suicide and attenuate the symptoms for mental disorder like depression and anxiety (Kleiman & Liu 2013; Miller et al., 2015). However, it is important to note that the effect of peer support on behavioral outcomes is very complex because it can either encourage and compensate deficits of one life or facilitate antisocial behaviors and health compromising behaviors (Foster et al., 2020). In addition, raising awareness and education towards the public regarding SMB is very essential because through educational programs and workshops are able to help the public to learn about the dire effect of SMB and those who are in need. Moreover, there are also a lot of resources available for people who are suffering from SMB, which includes western and non-western interventions. It is very common for people to go for counseling services, Cognitive-Behavioral therapy, Cognitive Restructuring and Reframing, support groups, etc. However, there are also a variety of non-western interventions that could help individuals to cope with their mental and emotional health effectively. This includes yoga, mindfulness meditation, reflexology, reiki, etc. Although risk factors for SMB

are relatively well established, aspects that protect people from engaging in SMB are still in need for further investigation and exploration.

Limitation

As with the majority studies, the design of the current study is subject to limitations First of all, the sample size may be relatively small to be generalized as the population based on one hundred and six participants. On top of that, small sample size may also increase the margin of error and decrease the statistical power, which increases the likelihood of type II error to occur. Secondly, this study consisted of self-report data, which potentially contain several sources of bias, such as selective memory, exaggeration, telescoping and attribution. Additionally, since there were rewards provided for the participants who had completed the survey, it may have affected the accuracy of the result as they may report inaccurate data to promptly finish the survey in order to get the reward. Another limitation deals with timing. Data of the present study was collected during the COVID-19 pandemic. As shown in Xu & Cheng (2021), behaviors in the pandemic were affected by a series of psychological and demographic factors. Hence, future studies can examine how these factors might contribute to SMB during the pandemic." Last but not least, due to the rejection in the prior application, time allocated for the data collection process was delayed which led to lesser time allocated for the analysis process. The result might be more detailed and comprehensive, given under the condition that the procedure prior to data collection was completed and approved earlier. Therefore, more studies should be done to address the limitations in the future.

References

American Foundation for Suicide Prevention. (2020). Suicide Statistics. Retrieved from https://afsp.org/about-suicide/suicide-statistics/

Clife, C., Shetty, H., Himmerich, H., Schmidt, U., Stewart, R., & Dutta, R. (2020). Suicide attempts requiring hospitalization in patients with eating disorders: A retrospective cohort study. International Journal of Eating Disorder, 1-8. Retrieved from http://dx.doi.org.proxy.lib.uni.edu/10.1002/eat.23240

Bresin, K., & Schoenleber, M. (2015). Gender differences in the prevalence of nonsuicidal self-injury: A meta-analysis. Clinical psychology review, 38, 55–64. https://doi.org/10.1016/j.cpr.2015.02.009

DeAngelis, T. (2015). Who self-injures?. American Psychiatry Association. Retrieved from https://www.apa.org/monitor/2015/07-08/who-self-injures

Discovery. (2019). The differences between self-harm and suicide intent. Retrieved from https://discoverymood.com/blog/difference-self-harm-attempted-suicide/

Dodd, D. R., Smith, A. R., Forrest, L. N., Witte, T. K., Bodell, L., Bartlett, M., Siegfried. N., & Goodwin, N. (2017). Interoceptive deficits, nonsuicidal self-injury,and suicide attempts among women with eating disorders. The official Journal of the American Association of Suicidology 48(4). DOI: 10.1111/sltb.12383

Feldman, R.S. (2017). Development across the lifespan. (8th ed). Harlow, UK: Pearson Education Limited.

Forster, M., et al. (2020). The Role of Social Support in the association between childhood

adversity and adolescent self-injury and suicide: findings from a statewide sample of high school students. J Youth Adolescence 49, 1195–1208. https://doi.org/10.1007/s10964-020-01235-9

Geulayov, G., Casey, D., McDonald, K. C., Foster., P., Pritchard, K., Wells, C., Clements, C., Kapur, N., Ness, J., Waters, K., & Hawton, K. (2018). Incidence of suicide, hospital presenting non-fatal self-harm, and community-occurring non-fatal self-harm in adolescents in England (the iceberg model of self-harm): a retrospective study. Lancet Psychiatry (5).

Ghosh, I. (2020) Mapped: visualizing the u.s. Population by race. Visual Capitalist. Retrieved From https://www.visualcapitalist.com/visualizing-u-s-population-by-race/#:~

Hagell, A. (2013). Adolescent self-harm. Association for Young People's Health. Retrieved from http://www.youngpeopleshealth.org.uk/wp-content/uploads/2015/

Huang, X., Ribeiro, J. D., & Franklin, J. C. (2020). The difference between individuals engaging in in nonsuicidal self-injury and suicide attempt are complex (vs. complicated or simple). *Frontiers in Psychiatry*, 11,239. DOI=10.3389/fpsyt.2020.00239

Kleiman, E. M., & Liu, R. T. (2013). Social support as a protective factor in suicide: findings from two nationally representative samples. *Journal of Affective Disorders*, 150(2), 540–545.

Klonsky, E.D., Victor, S.E., & Saffer, B.Y. (2014). Nonsuicidal self-injury: what we know, and what we need to know. The Canadian Journal of Psychiatry, 59(11), 565-568.

Lang, C. M., & Sharma-Patel, K. (2011). The Relation between childhood maltreatment and self-injury: A review of the literature on conceptualization and intervention. Trauma, Violence, & Abuse, 12(1), 23–37.

Leknas, S. & Tracey, I. (2008). A common neurobiology for pain and pleasure. Nat Rev Neurosci 9, 314–320. Retrieved from https://doi.org/10.1038/nrn2333

Lloyd-Richardson, E. E., Lewis, S. P., Whitlock, J. L., Rodham, K., & Schatten, H. T. (2015). Research with adolescents who engage in non-suicidal self-injury: ethical considerations and challenges. Child and adolescent psychiatry and mental health, 9, 37. doi: 10.1186/s13034-015-0071-6

Mahoney, B. (2018). Self-injury awareness day March 1 2018. *Discovery*. Retrieved from https://discoverymood.com/blog/self-injury-awareness-day-march-1-2018/

Mayo Clinic. (2018). Self-injury/ cutting. Retrieved from https://www.mayoclinic.org/diseases-conditions/self-injury/symptoms-causes/syc-20350950

Miller, A. B., Esposito-Smythers, C., & Leichtweis, R. N. (2015). Role of social support in adolescent suicidal ideation and suicide attempts. Journal of Adolescent Health, 56(3), 286–292.

Moor, S., Crowe, M., Luty. S., Carter. J., & Joyce, P. R. (2012). Effects of comorbidity and early age of onset in young people with bipolar disorder and self-harming behavior and suicide attempts. *Journal of Affective Disorders*, Volume 190, 15 January 2016, Pages 894. Retrieved from https://doi.org/10.1016/j.jad.2011.10.018

Nock, M.K., Joiner T.E., Gordon K.H., Llyod-Richardson, E., & Prinstein, N.J. (2006). Non-suicidal self-injury among adolescents: diagnostic correlates and relation to suicide attempts. *Psychiatry Research*, 144(1), 65–72.

Nock MK, Green JG, Hwang I, et al. (2013). Prevalence, Correlates, and Treatment of Lifetime

Suicidal Behavior Among Adolescents: Results from the National Comorbidity Survey Replication Adolescent Supplement. *JAMA Psychiatry*. 70(3), 300–310. doi:10.1001/2013.jamapsychiatry.55

Ougrin, D., Zundel, T., Kyriakopoulos, M., Banarsee, R., Stahl, D., & Taylor, E. (2012). Adolescents with suicidal and nonsuicidal self-harm: Clinical characteristics and response to therapeutic assessment. *Psychological Assessment*, 24(1), 11–20.

Plante, L.G. (2007). Bleeding to ease the pain. Westport, CT: Praeger Publishers.

Social Psychiatry and Psychiatric Epidemiology, 44, 601–607.

Plener, P.L., Schumacher, T.S., Munz, L.M., Groschwitz, R.C. (2015). The longitudinal course of non-suicidal self-injury and deliberate self-harm: a systematic review of the literature. Borderline Personality Disorder and Emotion Dysregulation, 2(2), 1-11. DOI: 10.1186/s40479-014-0024-3

Sagiv, E., & Gvion, Y. (2020). A multifactorial model of self-harm behaviors in anorexia nervosa and bulimia nervosa. Elsevier (96), 1-9.

Sansone, R. A., & Sansone, L. A. (2010). Measuring self-harm behavior with the self-harm inventory. Psychiatry (Edgmont (Pa. : Township)), 7(4), 16–20.

Simeon, D. & Favazza, A. R. (2001). Self-injurious behaviors: Phenomenology and assessment. In D. Simeon, & E. Hollander (Eds.), Self-injurious behaviors: Assessment and treatment (pp. 1-28). Washington, DC: American Psychiatric Publishing.

Scoliers, G., Portzky, G., Madge, N., Hewitt, A., Hawton, K., De Wilde, E.J., Ystgaard, M., Arensman, E., De Leo, D., Fekete, S., & Van Heeringen, K. (2009). Reasons for adolescent deliberate self-harm: a cry of pain and/or a cry for help?. *Soc of Psychiatry Epidemiol* 44, 601–607.

The oaks. 2018. Types of self-injury. Retrieved from https://theoakstreatment.com/blog /types-of-self-injury/

Tracy, N. (2016). 10 ways people Self-Harm, Self-Injure. Healthy place. Retrieved from https://www.healthyplace.com/abuse/self-injury/10-ways-people-self-harm-self-inju re

Trochim, W. M. K. (2013) Overview of survey research. *Research methods in Psychology*. Retrieved from https://opentextbc.ca/researchmethods/chapter/overview-of-survey-rese arch/

Xu, P., & Cheng, J. (2021). Individual differences in social distancing and mask-wearing in the pandemic of COVID-19: The role of need for cognition, self-control and risk attitude. Personality and individual differences, 175, 110706. https://doi.org/10.1016/j.paid.2021.110706

Washburn, J.J., Juzwin, K.R., Styer, D.M., Aldridge, D., 2010. Measuring the urge to self-injure: preliminary data from a clinical sample. Psychiatry Research 178, 540–544.

Yates, T.M. (2004). The developmental psychopathology of self-injurious behavior: Compensatory regulation in posttraumatic adaptation. Clinical Psychology Review, 24(1), 35 – 74.