# A DESCRIPTIVE STUDY TO ASSESS THE SUICIDAL IDEATION AND ITS ASSOCIATED RISK FACTOR AMONG STUDENT OF MEDICAL UNIVERSITY OF PUNJAB

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## ABSTRACT

*AIM:* The aim of study to assess the suicidal ideation and its associated risk factors among students of Medical University of Punjab.

*BACKGROUND OF THE STUDY:* Suicide is one of the psychiatric emergencies and it continues to be a substantive problem for the individual as well as for the society.

*MATERIALS & METHODS:* A cross sectional survey research design was used on 200 conveniently selected students and data were gathered by using socio-demographic sheet, Suicide behaviour Questionnaire-revised (SBQ-R), Reason of Living Inventory and Nurses' Global Assessment of Suicide Risk (NGASR).

*RESULTS:* Study found that 20.5% of the students had either thought or plan or attempted suicide in their life. The 16.5% of the students had suicidal thought ranging from rare to very often. The 16.5% subject were had threat of suicide attempt. The 30.5% self-reported likelihood of suicidal behavior in the future ranging from rather unlikely, unlikely, likely and rather likely. The baseline mean (standard deviation) value of suicide behaviour is 4.12 (2.066). The 3% students had very high-level risk, 5 % students had high level risk, 10 % subject had intermediate risk. The mean (SD) was highest in family alliance whereas it was lowest in suicide related concern for suicidal ideation. As per t statistics, there was statistically significant difference between mean of male and female had more suicidal ideation as compared to males. As per t statistics, there was statistically significant difference between and nursing course of study students had more suicidal ideation as compared to M.B.B.S. As per t statistics there was statistically significant that history of substance abuse subject had more chance of suicidal ideation as compared to no history of substance abuse.

*CONCLUSION:* It can be concluded that student had suicidal ideation, plan and attempt in their life. There were number of risk factor in their life and they had also a risk of suicide in their life. Survey should be done regularly to monitor the suicidal ideation and its associated risk factors among students

*KEYWORDS:* Suicidal ideation, risk factor Assessment, Suicidal ideation, risk factor, medical university.

*'There is a hero inside of you. You are the main character in an epic struggle between good and evil. Let's travel to the dark places of grief together and climb out, where we can see the bigger picture.'*

*Marie White*

## INTRODUCTION:

Suicide is one of the psychiatric emergency. Suicide is not chosen; it happens when pain exceeds the resources for coping with pain. SUICIDE is defined as the deliberate killing of oneself. Tragically, suicide is a problem that affects people of all ages, but most dramatically, adolescents and young adults. In every year around 800000 people die due to suicide. Suicide is the third leading cause of death in 15–25-year-olds. There is 79% of global suicides occur in low and middle- income countries.[1]

In India reported an average 381 deaths by suicide daily in 2019, totaling 1,39,123 fatalities over the year, according to the latest National Crime Records Bureau (NCRB) data. A 3.4 per cent increase was observed in suicides during 2019 (1,39,123 suicides) as compared to 2018 (1,34,516) and 2017 (1,29,887). The NCRB data showed the maximum of suicides were reported in Maharashtra (18,916), followed by 13,493 in Tamil Nadu, 12,665 in West Bengal, 12,457 in Madhya Pradesh and 11,288 in Karnataka, accounting for 13.6 per cent, 9.7 per cent, 9.1 per cent, 9 per cent and 8.1 per cent of total such deaths, respectively. In Uttar Pradesh, the most populous state, reported comparatively lower percentage share of suicidal deaths, accounting for only 3.9 per cent of the total suicides in the country. The maximum cases of mass/family suicide were reported from Tamil Nadu (16) followed by Andhra Pradesh (14), Kerala (11), Punjab (9) and Rajasthan (7). The World Health Organization (WHO) states that suicide is a serious public "health problem" and is "preventable" with timely, evidence-based and often low-cost interventions. [2]

Suicidal ideation was reported in students by 17% (14.2% boys and 19.5% girls). Suicidal ideations were strongly associated with anxiety, depression, conduct problems, overweight and muscular and tension reported when participants were 13–15years old. The prevalence of high suicidal ideation among female college students of Calcutta was 12.5%. Due to some incident, harassment, rape and being jilted in love were relatively more important while events like death of a loved one and acute financial crisis were found relatively less significant reasons for suicidal ideation for this sample. Suicidal ideation in school going adolescents was positively correlated with psychological discomfort, anxiety, and depression in another indian study. Suicidal ideation in college students has been extensively studied in western countries but comparatively less work has been done in India. [3]The growth of suicide among students can be for various reasons. The present study aims to identify factors leading to suicidal ideation and suicidal attempt among college students and reasons of leading suicidal ideation and suicide attempts such as mental health issues, interpersonal conflict, academic factors, family distress, parental behaviour, love affair and life style and current pandemic COVID-19 disease.

## NEED OF THE STUDY

Suicide is now understood as a public health issue world over. India now is facing the worst situation of the rising cases of suicide among the students. Certain steps need to be taken in this regard so that the youths are saved from taking such drastic step. If student commits suicide, it affects the family as well as country because students are the vulnerable age group.

In India, Punjab state has earned the ignominy of ranking at the top in India when it comes to number of suicides due to illness. Out of total 1,714 suicides in Punjab in 2018, 42.1% or 722 persons ended life due to illness.

It is really unfortunate that suicide by students in college and schools across India has been rising tremendously. In fact, every time after results are announced, we hear a spate of students committing suicides because they could not secure admission in their colleges of choice or could not get enough marks to move on to next grade. It is more unfortunate because many students commit suicide as they are not been able to live up to peer pressure, competition and parental expectation. Suicide evolves from suicidal ideation (SI) to planning of suicide and finally attempting suicide. There is scarcity of studies on suicidal ideation in Indian context. The suicidal ideations are not studied as extensively in India as in other parts of the world.[10]

As in nursing field, I felt that a number of medical student suffering from academic stress, current COVID-19 pandemic which leads to directly effect on the mental health of the medical students because of double burden of studies as well clinical duties. I personally experienced one student did suicidal attempt so it inspire me to do research study on suicide and explore about which risk factor mostly cause the suicidal ideation and attempt among students.

## PROBLEM STATEMENT

A study to assess the suicidal ideation and its associated risk factors among students of Medical University of Punjab.

## AIM

The aim of study to assess the suicidal ideation and its associated risk factors among students of Medical University of Punjab.

## OBJECTIVES

1. To assess the suicidal ideation among students.

2. To assess the associated risk factors of suicide ideation in students

3. To determine the association of suicidal ideation with selected socio-demographic variables

## OPERATIONAL DEFINITIONS

**1. Suicide ideation:** Suicide ideation refers to wanting to take self-life or thinking about suicide among college students as measured by Suicide behaviours questionnaire-revised (SBQ-R).
**2. Risk factor:** A risk factor or determinant is a variable which is directly or indirectly responsible for suicidal ideation in college students as measured by Nurses Global Assessment of Suicide Risk (NGASR) and Reason of living inventory.
**3. Medical students:** The medical, nursing and dental interns studying in selected medical, nursing and dental colleges of Medical University.
**4. Medical University:** Medical University in the study is Baba Farid University of       Health Science Faridkot, Punjab.

## DELIMITATION

1.College going students.

2. Students whose age 18 to 26.

## METHODOLOGY

This chapter includes the methodology to conduct the study to assess the suicidal ideation and its associated risk factor among student of medical university of Punjab.

## RESEARCH APPROACH

In the present, study the descriptive research   approach was used to assess the suicidal ideation and its associated risk factors among students of medical university of Punjab.

## RESEARCH DESIGN

The cross-sectional survey research design was used to assess the suicidal ideation and its associated risk factors among students of Medical University of Punjab.

## RESEARCH SETTING

The present study was conducted at four selected medical and nursing college of district faridkot, fazilka and Shri muktsar sahib. The colleges were selected on the basis of following criteria:

**Table no. 1 The present study was conducted of following colleges as depicted in table**: -

| S.NO | Name of college | No.  of  students  takes  for study |
|------|-----------------|-------------------------------------|
| 1 | University Institute of Nursing, Jalalabad, Fazilka | 10   ( for tool try out  ) |
| 2 | Dasmesh   Institute   of   Dental   Sciences   college Faridkot | 20    (for pilot study) |
| 3 | University College of Nursing, Faridkot | 70  (for research main study) |
| 4 | Guru Gobind Singh Medical College, Faridkot | 54 (for research main study) |
| 5 | State Institute of Nursing and Paramedical Sciences, Badal, Shri muktsar sahib | 53  (for research main study) |
| 6 | Baba Banda Bahadur College of Nursing, Faridkot | 23   (for research main study) |

**Table no. 2 Response rate of students from different colleges as depicted in table**: -

| S. No. | Name of selecting college | Number of students approached | Replied by subject | Response rate |
|---|---|---|---|---|
| 1 | University College of Nursing, Faridkot | 70 | 60 | 85.7% |
| 2 | Guru Gobind Singh Medical College, Faridkot | 70 | 65 | 92.8% |
| 3 | State Institute of Nursing and Paramedical Sciences, Badal, Shri Muktsar Sahib | 53 | 53 | 100% |
| 4 | Baba Banda Bahadur College of Nursing, Faridkot | 23 | 22 | 95.6% |

## POPULATION

The present study comprised of population comprised students of Punjab in BFUHS, Faridkot, target population was students who are in medical, dental and nursing internship of Punjab medical university in BFUHS, Faridkot.

## SAMPLE AND SAMPLING TECHNIQUE

In present study, internship student of medical university of Punjab BFUHS, were selected as sample, non-probability convenient sampling technique and sample size in present study was 200 internship students selected from different colleges of medical university of Punjab BFUHS, Faridkot.

## VARIABLES OF THE STUDY

Two types of variables were included in present study research variable and demographic variables. Suicidal ideation and its associated risk factors were the research variables, the demographic variables are age, gender, family type, family income monthly (in rupees), place of residence, course of study, pocket money /month, history of substance/alcohol use, availability of social support, history of psychiatry illness, history of any medical/surgical illness, previous suicidal attempt

## TOOL AND TECHNIQUES

**The tool is divided into following parts-**

**Part-A:** Socio-demographic profile

**Part-B:** Suicide behaviour Questionnaire-revised (SBQ-R)

**Part-C:** Reason of Living Inventory

**Part-D:** Nurses' Global Assessment of Suicide Risk (NGASR)

## ANALYSIS AND INTERPRETATION

Analysis of the study is organized according to the objectives and presented under the following heading:

**Section 1-** Distribution of sample as per their socio-demographic profile

**Section II-** Distribution of sample as per their suicidal ideation among students.

**Section III-** Distribution of sample as per their risk factors of suicide ideation in students

**Section 1V-**Association of suicidal ideation and with selected socio-demographic variables.

Section 1 describe the distribution of sample as per their socio demographic profile.

Table 1 reveals the frequency and percentage distribution of subjects as per their socio demographic characteristics are discussed below: -

**Table no. 1: Distribution of subjects as per their socio-demographic profile (N=200)**

| Sr. No. | Socio-demographic variables | | F | (%) |
|---|---|---|---|---|
| 1. | **Gender** | Female | 157 | 78.5 |
| | | Male | 43 | 21.5 |
| 2. | **Family type** | Nuclear | 143 | 71.5 |
| | | Joint | 57 | 28.5 |
| 3. | **Family e monthly (in rupees)** | <10,000 | 10 | 5.0 |
| | | 10,001-20,000 | 25 | 12.5 |
| | | 20,001-30,000 | 32 | 16.0 |
| | | 30,001-40,000 | 40 | 20.0 |
| | | >40,000 | 93 | 46.5 |
| 4. | **Place of Residence** | Paying guest | 12 | 6.0 |
| | | Home | 33 | 16.5 |
| | | Hostel | 145 | 72.5 |
| | | Other | 10 | 5.0 |
| 5. | **Course of study** | M.B.B.S Intern | 62 | 31.5 |
| | | B.D.S Intern | 0 | 0 |
| | | Nursing Intern | 138 | 68.5 |
| 6. | **History of substance/alcohol use** | Yes | 14 | 7.0 |
| | | No | 186 | 93.0 |
| 7. | **Availability of social support** | Yes | 145 | 72.5 |
| | | No | 55 | 27.5 |
| 8. | **History of psychiatry illness** | Yes | 3 | 1.5 |
| | | No | 197 | 98.5 |
| 9. | **History of any medical/surgical illness** | Yes | 13 | 6.5 |
| | | No | 187 | 93.5 |
| 10. | **Previous suicidal attempt** | Yes | 4 | 2.0 |
| | | No | 196 | 98.0 |

**Gender-**

As per gender, 157 (78.5%) were females whereas 43 (21.5%) were males. Hence, it can be concluded that majority of subject were females.

**Family type-**

As per family type, 57, 28.5% subject were belong joint family whereas 143 (71.5%) subjects were belong to nuclear family.

Hence, it can be concluded that majority of subject belong to nuclear family.

**Family income-**

As per family income 10, 5% subject were belong to category of<10,000 whereas 93, 46.5% subject were belong to category >40,000.

Hence, it can be concluded that majority of subject belong to category >40,000.

**Place of residence-**

As per place of residence 10, 5% subject had other place of residence 12, 6% subject were paying guest, 33,16.5% subject had home residence, whereas 145, 72.5% subject had hostel residence.

Hence, it can be concluded that majority of subject had hostel place of residence.

**Course of study-**

As per course of study 62 ,31.5% subject M.B.B.S whereas 138, 68.5% subject were from nursing.

Hence, it can be concluded that majority of subject had nursing course.

**History of substance/alcohol use-**

As per history of substance/alcohol use 14, 7% subject had history substance/alcohol abuse where as 186, 93% subject had no history of substance abuse history.

Hence, it can be concluded that majority of subject had no history of substance abuse

**Availability of social support-**

As per availability of social support 55, 27.5% subject had no social support, 145,72.5% subject had social support.

Hence, it can be concluded that majority of subject had social support.

**History of psychiatry illness-**

As per history of psychiatry illness 3, 1.5% subject had history of psychiatric illness whereas 55, 27.5% subject had no any psychiatric illness.

Hence, it can be concluded that majority of subject had no any psychiatric illness.

**History of any medical/surgical illness-**

As per history of medical/surgical illness 13, 6.5% subject had medical/surgical illness whereas 187, 93.5% subject had no any medical/surgical illness.

Hence, it can be concluded that majority of subject had no any medical/surgical illness.

**Previous suicidal attempt-**

As per previous suicidal attempt 4, 2% subject has history of previous suicidal attempt whereas 196, 98% subject had history of previous suicidal attempt.

Hence, it can be concluded that majority of subject had no any previous suicidal attempt.

**Section II- Distribution of sample as per their suicidal ideation among students**

Section II deals with description of suicidal ideation among students

**Objective 1:** To assess the associated risk factors of suicide ideation in students
Table 2 reveals the frequency and percentage distribution subject as per their lifetime suicide ideation and/or suicide attempts: -

**Table no. 2: Frequency distribution of subject as per their lifetime suicide ideation and/or suicide attempts (N=200)**

| Quest 1 | Distribution of subject | F | % |
|---|---|---|---|
| **Lifetime suicide ideation and/or suicide attempts** | Non-Suicidal ideation | 159 | 79.5 |
| | Suicide Risk Ideation | 22 | 11.0 |
| | Suicide Plan | 17 | 8.5 |
| | Suicide Attempt | 2 | 1 |

Table no. 2 reveals the distribution of the subjects as per their lifetime suicide ideation and/or suicide attempts. The majority of subject had no feeling of suicidal thought whereas 22 subject i.e., 11% had suicidal thought in their life, 17 subject i.e., 8.5% had plan of suicide in their life whereas 2 subject i.e., 1 % attempted suicide in their life.

Thus, it can be concluded that 79.5 % subject were normal or had no suicidal thoughts in their life whereas rest of the subject (20.5%) had either thought or plan or attempted suicide in their life.

**Table no. 3: Frequency distribution of subject as per Frequency of suicidal ideation over the past 12 months (N=200)**

| Quest 2 | Distribution of subject | F | (%) |
|---|---|---|---|
| **Frequency of suicidal ideation over the past 12 months** | Never | 167 | 83.5 |
| | Rarely (1 time) | 23 | 11.5 |
| | Sometimes (2 times) | 3 | 1.5 |
| | Often (3-4 times) | 4 | 2.0 |
| | Very Often (5 or more times) | 3 | 1.5 |

Table no. 3 reveals the distribution of the subjects as per the thought about killing self in the past over the past 12 month whereas 3 subjects i.e. 1.5% had suicidal ideation in their life were five or more times, 3 subject i.e. 1.5% had suicide ideation in their life was two time, whereas 4 subject i.e. 2.0 % had suicidal ideation in their life were three to four times, 23 subject i.e. 11.5 % had suicidal thought in their life was one time.

Thus, it can be concluded that 167 i.e. 83.5 % subject had no feeling of suicidal ideation over the past 12 months whereas 16.5% of the subject had suicidal thought ranging from rare to very often.

**Table no. 4: Frequency distribution of subject as per threat of suicide attempt (N=200)**

| Quest 3 | Distribution of subject | f | (%) |
|---|---|---|---|
| **Threat of suicide attempt** | No | 167 | 83.5 |
| | Yes, at one time, but did not really want to die or<br>Yes, at one time, and really wanted to die | 26 | 13 |
| | Yes, more than once, but did not want to do it or<br>Yes, more than once, and really wanted to do it | 7 | 3.5 |

Table no. 4 reveals that distribution of subject as per their distribution of the subjects as per the threat of suicide attempt whereas 7 subjects i.e. 3.5 % they really wanted to die, whereas 26 subject i.e. 13 % they had threat of suicide attempt but did not wanted to die .   Thus, it can be concluded that 83.5 % subject were normal or had no threat of suicide attempt in their life whereas 16.5% subject were had threat of suicide attempt.

**Table no. 5: Frequency distribution of subject as per their self-reported likelihood of suicidal behaviour in the future (N=200)**

| Quest 4 | Distribution of subject | F | (%) |
|---|---|---|---|
| **Self-reported likelihood of suicidal behaviour in the future** | Never | 139 | 69.5 |
| | No chance at all | 47 | 23.5 |
| | Rather unlikely | 9 | 4.5 |
| | Unlikely | 2 | 1.0 |
| | Likely | 2 | 1.0 |
| | Rather likely | 1 | 0.5 |

Table no. 5: reveals that distribution of subject as per their self-reported likelihood of suicidal behaviour in the future whereas 1 subject i.e. 0.5 % rather likely self-reported likelihood of suicidal behaviour in the future , 4 subject i.e. 2% self-reported likelihood of suicidal behaviour in the future , whereas 9 subject i.e. 4.5 % rather unlikely self-reported likelihood of suicidal behaviour in the future , 47 subject i.e. 23.5% no chance at all self-reported likelihood of suicidal behaviour in the future.

Thus, it can be concluded that 139 subject i.e. 69.5 % were normal or had no suicidal behaviour in the future whereas 30.5% self-reported likelihood of suicidal behavior in the future ranging from rather unlikely, unlikely, likely and rather likely.

### Table No.6: Mean (SD) of subject as per their suicidal behaviour

| Suicidal | Mean | SD | Minimum | Maximum |
|---|---|---|---|---|
| behaviour | 4.12 | 2.066 | 3 | 16 |

Table no. 6 reveals that distribution of subject as per suicidal behaviour. The baseline mean (standard deviation) value of suicide behaviour is 4.12 (2.066). The maximum value of suicide behaviour is 16 and minimum value is 3.

**Section III- Distribution of sample as per their risk of suicide in students**

Section III deals with description of risk of suicide in students.

**Objective 2:** To assess the associated risk factors of suicide ideation in students

Table 7 reveals the frequency and percentage distribution as per their risk of suicide

### Table no.7: Frequency distribution of subject as per their risk of suicide (N=200)

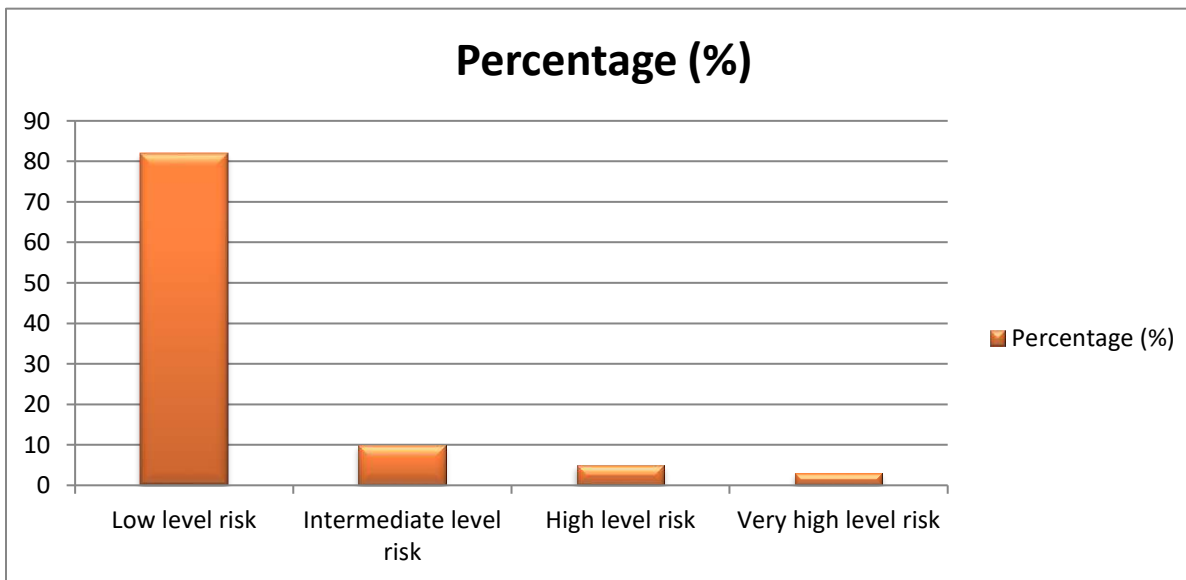| Suicidal risk | F | (%) |
|---|---|---|
| Low level risk (0-5) | 164 | 82.0 |
| Intermediate level risk (6-8) | 20 | 10.0 |
| High level risk (9-11) | 10 | 5.0 |
| Very high level risk (12 or more) | 6 | 3.0 |



**Fig: 1 bar diagram showing the frequency and percentage as per their risk factors of suicide ideation in students**

Table no. 7 & Fig. 1 reveals that distribution of subject as per their suicide risk , 3% subject had very high level risk, 5 % subject had high level risk, 10 % subject had intermediate risk whereas 82 % subject had low level risk.

Thus, it can be concluded that majority of the study subjects had low level suicide risk for suicide

**Table no.8: Frequency distribution of subject as per their suicide risk factor (N=200)**

| Risk factors | Mean | SD | Range | Minimum | Maximum |
|---|---|---|---|---|---|
| Family alliance scale | 37.15 | 6.028 | 31 | 11 | 42 |
| Suicide related concern scale | 27.21 | 8.158 | 36 | 6 | 42 |
| Self-acceptance scale | 31.51 | 4.790 | 27 | 9 | 36 |
| Peer acceptance and support scale | 30.58 | 5.688 | 36 | 6 | 42 |
| Future optimism scale | 37.14 | 4.658 | 30 | 12 | 42 |

Table no.8 reveals that distribution of subject as per their suicide risk factors. The mean (SD) of family alliance scale was 37.15 (6.028). The mean (SD) of suicide related concern scale 27.21(8.158).The mean (SD) of self-acceptance scale 31.51 (4.790) .The mean (SD) of peer acceptance, support scale 30.58(5.688) and the mean (SD) of future optimism scale 37.14 (4.658).

Hence, it can be concluded that mean (SD) was highest in family alliance whereas it was lowest in suicide related concern for suicidal ideation.

**Table no.12 Frequency and percentage distribution of response of subjects regarding Reason of living inventory scale (family alliance scale) (N=200)**

| Family alliance scale | Not at all important | Quite un-important | Somewhat Un-important | Some what important | Quite important | Extremely important |
|---|---|---|---|---|---|---|
| | n (%) | n (%) | n (%) | n (%) | n (%) | n (%) |
| Whenever I have a problem, I can turn to my family for support or advice | 6 (3.0) | 0 | 5 (2.5) | 26 (13.0) | 30 (15.0) | 133 (66.5) |
| I feel emotionally close to my family. | 4 (2.0) | 3 (1.5) | 6 (3.0) | 16 (8.0) | 43 (21.5) | 128 (64.0) |
| My family takes the time to listen to my experiences at school, work, or home. | 5 (2.5) | 2 (1.0) | 8 (4.0) | 19 (9.5) | 29 (14.5) | 137 (68.5) |
| 1 enjoys being | 4 | 0 (0) | 11 | 23 | 32 | 129 |

| with my family | (2.0) | | (5.5) | (11.5) | (16.0) | (64.5) |
|---|---|---|---|---|---|---|
| Most of the time, my family encourages and supports plans or goals. | 3 (1.5) | 1 (0.5) | 11 (5.5) | 24 (12.0) | 30 (15.0) | 131 (65.5) |
| My family cares about the way l feel. | 5 (2.5) | 2 (1.0) | 8 (4.0) | 27 (13.5) | 40 (20.0) | 118 (59.0) |
| My family cares a lot about what happens to me | 4 (2) | 1 (0.5) | 8 (4.0) | 17 (8.5) | 48 (24.5) | 121 (60.5) |

Table no. 9 reveals the frequency and percentage distribution of subjects as per family alliance scale which is a part of reason of living inventory and discussed below as per questions-

**Question no 1: Whenever I have a problem, I can turn to my family for support or advice**

Maximum (66.5%) of the subjects reported that turning to family for support was extremely important whenever they have a problem.

**Question no. 2: I feel emotionally close to my family**

Maximum (64%) of the subjects reported that it is extremely important for them to feel emotionally close to family.

**Question no. 3: My family takes the time to listen to my experiences at school, work, or home.** Maximum (68.5%) of the subjects reported that their family extremely important to listened about their experiences of school work or home.

**Question no.4: l enjoys being with my family**
Maximum (64.5%) of the subjects reported that they feel extremely important when they being with the family.

**Question no.5: Most of the time my family encourages and supports and support plans or goals**

Maximum (65.5%) of the subjects reported that they feel extremely important during their plan and support of their goals.

**Question no.6: My family cares about the way l feel**

Maximum (59%) of the subjects reported that they feel extremely important that their family cares about what they feel.

**Question no.7: My family cares a lot about what happens to me**

Maximum (60.5%) of the subjects reported that their family extremely important and cares a lot about them whatever if happened to them.

**Table No. 13 Frequency and percentage distribution of response of subjects regarding Reason of living inventory scale (Suicide related concern scale) (N=200)**

| Suicide related concern scale | Not at all important | Quite un-important | Somewhat Un-important | Some what important | Quite important | Extremely important |
|---|---|---|---|---|---|---|
| | n (%) | n (%) | n (%) | n (%) | n (%) | n (%) |
| It would be painful and frightening to take my own life. | 29 (14.5) | 7 (3.5) | 16 (8.0) | 18 (9.0) | 41 (20.5) | 89 (44.5) |
| I am afraid to die, so I would not consider killing myself | 18 (9.0) | 6 (3.0) | 20 (10.0) | 20 (10.0) | 49 (24.5) | 87 (43.5) |
| The thought of killing myself scares me. | 25 (12.5) | 6 (3.0) | 16 (8.0) | 31 (15.5) | 54 (27.0) | 68 (34.0) |
| I am afraid of using any method to kill myself | 29 (14.5) | 9 (4.5) | 20 (10.0) | 30 (15.0) | 36 (18.0) | 76 (38.0) |
| I am afraid of killing myself. | 18 (9.0) | 6 (3.0) | 11 (5.5) | 22 (11.0) | 59 (29.5) | 84 (42.0) |
| I would be frightened to make plans for killing myself | 25 (12.5) | 12 (6.0) | 13 (6.5) | 23 (11.5) | 36 18.0) | 91 (45.5) |

Table no. 10 reveals the frequency and percentage distribution of subjects as per suicide related concern scale which is a part of reason of living inventory and discussed below as per questions-

**Question no. 1: It would be painful and frightening to take my own life.**

Maximum (44.5%) of the subjects reported that they feel extremely important it would be painful and frightened to take their own life.

**Question no.2: I am afraid to die, so I would not consider killing myself**

Maximum (43.5%) of the subjects reported that they feel extremely important that they afraid to die and to take their own life.

**Question no.3: The thought of killing myself scares me.**

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Maximum (34%) of the subjects reported that they feel scares extremely important to thought of killing self.

**Question no.4: I am afraid of using any method to kill myself**

Maximum (38%) of the subjects reported that they afraid extremely important to use any method to kill themselves.

**Question no. 5: I am afraid of killing myself**

Maximum (42%) of the subjects reported that they afraid extremely important to kill self.

**Question no. 6: I would be frightened to make plans for killing myself**

Maximum (45.5%) of the subjects reported that they feel it would be extremely important and frightened to make a plan of killing self.

**Table No. 14 Frequency and percentage distribution of response of subjects regarding Reason of living inventory scale (Self-acceptance scale) (N=200)**

| Self acceptance scale | Not at All important | Quite un-important | Somewhat Un-important | Some what important | Quite important | Extremely important |
|---|---|---|---|---|---|---|
| | n (%) | n (%) | n (%) | n (%) | n (%) | n (%) |
| L accept myself for what l am. | 1 (.5) | 1 (.5) | 3 (1.5) | 13 (6.5) | 46 (23.0) | 136 (68.0) |
| 1 like myself just the way l am | 3 (1.5) | 3 (1.5) | 4 (2.0) | 3 (11.5) | 41 (20.5) | 126 (63.0) |
| l am satisfied with myself. | 1 (0.5) | 2 (1.0) | 6 (3.0) | 26 (13.0) | 59 (29.5) | 106 (53.0) |
| l feel that l am an OK person | 8 (4.0) | 6 (3.0) | 16 (8.8) | 36 (18.0) | 53 (26.5) | 81 (40.5) |
| I feel good about myself. | 1 (0.5) | 3 (1.5) | 12 (6.0) | 15 (7.5) | 54 (27.0) | 113 (56.5) |
| I am happy with myself. | 5 (2.5) | 1 (0.5) | 7 (3.5) | 17 (8.5) | 48 (24.0) | 122 (61.0) |

Table no. 11 reveals the frequency and percentage distribution of subjects as peer Self-acceptance scale which is a part of reason of living inventory and discussed below as per questions-

**Question no 1: l accept myself for what l am**

Maximum (68%) of the subjects reported that they feel extremely important what they are and accept self.

**Question no 2: I like myself just the way I am**

Maximum (63%) of the subjects reported that they feel extremely important and like what they are.

**Question no. 3: l am satisfied with myself.**

Maximum (53%) of the subjects reported that they feel extremely important and satisfied with the self.

**Question no.4: l feel that l am an OK person**

Maximum (40.5%) of the subjects reported that they feel extremely important that they are ok person.

**Question no.5: I feel good about myself.**

Maximum (56.5%) of the subjects reported that that they feel extremely important and good about self.

**Question no.6: I am happy with myself**

Maximum (61%) of the subjects reported that that they feel extremely important and happy with the self

**Table no. 15 Frequency and percentage distribution of response of subjects regarding Reason of living inventory scale (Peer acceptance and support) (N=200)**

| Peer acceptance and support | Not at All important | Quite un-important | Somewhat Un-important | Some what important | Quite important | Extremely important |
|---|---|---|---|---|---|---|
| | n (%) | n (%) | n (%) | n (%) | n (%) | n (%) |
| My friends stand by me whenever I have a problem. | 6 (3.0) | 2 (1.0) | 6 (3.0) | 28 (14.0) | 51 (25.5) | 107 (53.5) |
| I feel loved and accepted by my close friends. | 6 (3.0) | 2 (1.0) | 5 (2.5) | 17 (8.5) | 58 (29.0) | 112 (56.0) |
| My friends care a lot about me. | 3 (1.5) | 6 (3.0) | 10 (5.0) | 26 (13.0) | 51 (25.5) | 104 (52.0) |
| I believe my, friends appreciate me when I am with them. | 5 (2.5) | 5 (2.5) | 10 (5.0) | 38 (19.0) | 64 (32.0) | 78 (39.0) |
| I can count on my friends to help if I have a problem. | 8 (4.0) | 4 (2.0) | 12 (6.0) | 35 (17.5) | 56 (28.0) | 85 (42.5) |
| My friends accept me for what I really am. | 4 (2.0) | 21 (1.0) | 11 (5.5) | 29 (14.5) | 62 (31.0) | 92 (46.0) |

Table no. 12 reveals the frequency and percentage distribution of subjects as peer acceptance and support which is a part of reason of living inventory and discussed below as per questions

**Question no. 1: My friends stand by me whenever I have a problem.**

Maximum (53.5%) of the subjects reported that they feel extremely important that their friends stand with them whenever they were in problem.

**Question no.2: I feel loved and accepted by my close friends.**

Maximum (56%) of the subjects reported that they feel extremely important accepted and loved by their friends.

**Question no.3: My friends care a lot about me**

Maximum (52%) of the subjects reported that they feel extremely important and their friends care about them.

**Question no. 4: I believe my friends appreciate me when I am with them.**

Maximum (39%) of the subjects reported that they feel extremely important and appreciated by their friends.

**Question no.5: I can count on my friends to help if I have a problem.**

Maximum (42.5%) of the subjects reported that they extremely important and count their friends if they would be in problem.

**Question no.6: My friends accept me for what I really am.**

Maximum (46%) of the subjects reported that they feel extremely important and accepted by their friends what they are.

**Table no.16 Frequency and percentage distribution of response of subjects regarding Reason of living inventory scale (Future optimism scale) (N=200)**

| Future optimism Scale | Not at All important | Quite un-important | Somewhat Un-important | Some what important | Quite important | Extremely important |
|---|---|---|---|---|---|---|
| | n (%) | n (%) | n (%) | n (%) | n (%) | n (%) |
| I have a lot to look forward to as I grow older. | 0 | 6 (3.0) | 5 (2.5) | 21 (10.5) | 47 (23.5) | 121 (60.5) |
| I would like to accomplish my plans or goals in the future. | 0 | 2 (1.0) | 5 (2.5) | 9 (4.5) | 38 (19.0) | 146 (73.0) |
| I expect many good things to happen to me in the future. | 3 (1.5) | 2 (1.0) | 4 (2.0) | 23 11.5 | 50 (25.0) | 118 (59.0) |
| I am hopeful about my plans or goals for the future | 0 | 3 (1.5) | 3 (1.5) | 16 8.0 | 70 (35.0) | 108 (54.0) |
| 1 expects to be successful in the future. | 3 (1.5) | 0 0 | 5 (2.5) | 24 (12.0) | 51 (25.5) | 117 (58.5) |
| My future looks | 2 | 1 | 7 | 24 | 59 | 107 |

| quite hopeful and promising. | (1.0) | (0.5) | (3.5) | (12.0) | (29.5) | (53.5) |
|---|---|---|---|---|---|---|
| I have many plans I am looking forward to carrying out in the future. | 3 (1.5) | 0 0 | 4 (2.0) | 22 (11.0) | 57 (28.5) | 114 (57.0) |

Table no. 13 reveals the frequency and percentage distribution of subjects as future optimism scale which is a part of reason of living inventory and discussed below as per questions-

**Question no. 1: I have a lot to look forward to as I grow older.**
Maximum (60.5%) of the subjects reported that they feel extremely important to look forward as grow older.

**Question no.2: I would like to accomplish my plans or goals in the future.**
Maximum (73%) of the subjects reported that they feel extremely important to accomplish their plan in the future.

**Question no.3: I expect many good things to happen to me in the future.**
Maximum (59.0%) of the subjects reported that they feel extremely important that good thing would happen with them.

**Question no. 4: I am hopeful about my plans or goals for the future**
Maximum (54%) of the subjects reported that they feel extremely important hopeful about their plan or goals for future.

**Question no.5: l expects to be successful in the future.**
Maximum (58.5%) of the subjects reported that they feel extremely important that they would be successful in the future.

**Question no. 6: My future looks quite hopeful and promising.**
Maximum (53.5%) of the subjects reported that they feel hopeful promising and extremely important about their future.

**Question no.7: I have many plans I am looking forward to carrying out in the future.**
Maximum (57%) of the subjects reported that that they feel extremely important about their plan would be carrying out in the future.

**SECTION IV- Association of suicidal ideation with selected demographic variables**
Section IV deals with description of suicidal ideation and with selected demographic profile
**OBJECTIVE 3:** To determine the association of suicidal ideation with selected socio-demographic variables
Table 14 reveals the relationship of suicidal ideation with selected socio-demographic profile

**Table no.17: Relationship of suicidal ideation with selected socio-demographic variables (N=200)**

| Variables | | Suicidal ideation Mean (S.D) | t | df | P |
|---|---|---|---|---|---|
| **Gender** | Male | 3.16 (.531) | -6.198 | 195.889 | 0.001* |
| | Female | 4.38 (2.246) | | | |
| **Family type** | Nuclear | 4.10 (1.976) | -.239 | 198 | 0.274 |

| | Joint | 4.18 (2.292) | | | |
|---|---|---|---|---|---|
| **Course of study** | M.B.B.S Intern | 3.11(.447) | -4.879 | 198 | 0.001* |
| | Nursing Intern | 4.57(2.333) | | | |
| **History of substance abuse** | Yes | 5.93(4.028) | 1.793 | 13.387 | 0.001* |
| | No | 3.98(1.784) | | | |
| **Social support** | Yes | 4.21(2.034) | .966 | 198 | 0.550 |
| | No | 3.89 (2.149) | | | |
| **History of psychiatric illness** | Yes | 5.67(3.055) | 1.309 | 198 | 0.338 |
| | No | 4.10 (2.049) | | | |
| **History of medical illness** | Yes | 4.23(2.127) | .199 | 198 | 0.713 |
| | No | 4.11(2.067) | | | |
| **Pre suicidal attempt** | Yes | 6.00(2.160) | 1.850 | 198 | 0.866 |
| | No | 4.08(2.052) | | | |

* Significant at level of p=0.05

Table no. 14 reveals that association of subject as per their suicide ideation with selected socio-demographic variables has discussed below: -

**Gender**-

Mean (SD) of suicidal ideation for male was 3.16 (0.531) whereas 4.38 (2.246) suicidal ideation for females. As per t statistics, there was statistical significant difference ( t= -6.198, df=195.889 , p = 0.001) between mean of male and female with regard to suicidal ideation.

Hence, it can be concluded that female had more suicidal ideation as compared to males.

**Family type-**

 Mean (SD) of suicidal ideation for nuclear family was 4.10 (1.976) whereas 4.18(2.292) suicidal ideation for joint family. As per t statistics, there was statistical no significant difference ( t = -.239, df=198 , p = .274) between mean as the joint family  and nuclear family with regard to suicidal ideation.

Hence, it can be concluded that there was no significant relation between type of family with their suicidal ideation.

**Course of study-**

Mean (SD) of suicidal ideation for M.B.B.S course was 3.11 (.447) whereas 4.57 (2.333) suicidal ideation for nursing course. As per t statistics, there was statistical significant difference ( t = -4.879, df=198 , p = 0.001) between mean of M.B.B.S  and nursing course of study with regard to suicidal ideation.

Hence, it can be concluded that nursing course of study students had more suicidal ideation as compared to M.B.B.S course of study students.

**History of substance abuse-**

Mean (SD) of suicidal ideation for history of substance abuse was 3.98(1.784) whereas 5.93(4.028) suicidal ideation for no history of substance abuse as per t statistics there was statistical significant difference ( t= 1.793, df =13.387 , p = .001) between mean as the history of substance abuse and no history of substance abuse with regard to suicidal ideation.

Hence, it can be concluded that history of substance abuse subject had more chance of suicidal ideation as compared to no history of substance abuse.

**Social support-**

Mean (SD) of suicidal ideation for no social support was 3.98 (2.149) whereas 4.21(2.034) suicidal ideation for social support as per t statistics there was no statistical significant difference ( t =0 .966, df =198 , p = .550) between mean of no social support and social support with regard to suicidal ideation.

Hence, it can be concluded that there was no significant relation between no availability of social support and availability of social support with regard to suicidal ideation.

**History of psychiatric illness –**

Mean (SD) of suicidal ideation for not history of psychiatric illness was 4.10, (2.049) whereas 5.67, 3.055 suicidal ideation for history of psychiatric illness as per t statistics there was no statistical significant difference ( t=1.309 , df =198, p = .338 ) between mean of no history of psychiatric illness and history of psychiatric illness with regard to suicidal ideation.

Hence, it can be concluded that there was no significant relationship of no history of psychiatric illness and history of psychiatric illness with regard to suicidal ideation.

**History of medical illness-**

 Mean (SD) of suicidal ideation for not history of medical illness was 4.11, (2.067) whereas 4.23, (2.127) suicidal ideation for history of medical illness as per t statistics there was  no statistical significant difference ( t=.199 , df =198, p = .713 ) between mean of no history of medical illness and history of medical illness with regard to suicidal ideation.

Hence, it can be concluded that there was no significant relationship of no history of medical illness and history of medical illness with regard to suicidal ideation.

**Pre suicidal attempt-**

Mean (SD) of suicidal ideation for no pre suicidal attempt was 4.08, (2.052) whereas 6.00 (2.160) suicidal ideation for pre suicidal attempt as per t statistics there was no statistical significant difference ( t=1.850 , df =198, p = .866) between mean of no pre suicidal attempt and history of pre suicidal attempt with regard to suicidal ideation.

Hence, it can be concluded that there was no significant relationship of no any pre- suicidal attempt and history of pre suicidal attempt with regard to suicidal ideation.

**Table no. 18: Relationship of suicidal ideation with selected socio-demographic variables (N=200)**

| Variables | Characteristics | Suicidal ideation Mean (S.D) | F value | df | p value |
|---|---|---|---|---|---|
| **Family Income** | <10,000 | 4.60(2.459) | 1.008 | 4 | 0.404 (N.S) |
| | 10,001-20,000 | 4.72(3.021) | | | |
| | 20,001-30,000 | 4.28(1.938) | | | |
| | 30,001-40,000 | 3.85(1.657) | | | |
| | >40,000 | 3.97(1.908) | | | |
| **Place of Residence** | Paying guest | 4.08(3.753) | 1.616 | 3 | 0.187 (N.S) |
| | Home | 4.61(2.436) | | | |
| | Hostel | 4.09(1.833) | | | |
| | Other | 3.00(.000) | | | |
| | B.D.S Intern | 3.00 | | | |
| | Nursing Intern | 4.58(.200) | | | |

\* Significant at level of p=0.05

Table no. 16 reveals that distribution of subject as per their suicide ideation with selected socio-demographic variables

**Family income-**

Mean (SD) of suicidal ideation for family income was 3.85 (1.657) for category 30,001-40,000, 3.97(1.908) for category above 40,000, 4.28(1.938) for category 20,001-30,000, 4.60 (2.459) for category above 10,000 whereas 4.72 (3.021) for category 10,0001-20,000 suicidal ideation for family income. As per F statistics there was no statistical significant difference (F=1.008 , df =4, p = 0.404 ) between mean of family income with regard to suicidal ideation.

Hence, it can be concluded that there was no significant relationship of family income with regard to suicidal ideation.

**Place of Residence-**

Mean (SD) of suicidal ideation for place of residence was 3.00 (0.00) for other place of residence, 4.08 (3.753) for paying guest place of residence, 4.09 (1.833) for hostel residence whereas 4.61(2.436) for home residence. Suicidal ideation for place of residence. As per F statistics there was no statistically significant difference (F=1.616, df = 3, p = .187) between mean of place of residence with regard to suicidal ideation.

Hence, it can be concluded that there was no significant relationship of place of residence with regard to suicidal ideation

## DISCUSSION

In this section major findings of the study have been discussed with reference to similar findings given by investigators.

In present study it was found that 20.5% of students of medical university had either thought or plan or attempted suicide in their life where as 79.5 % students of medical university were normal or had no suicidal thoughts in their life. It was found that 16.5% of students of medical university were had threat of suicide attempt whereas majority 83.5 % student had no feeling of suicidal ideation over the past 12 months. This study also found that majority 83.5 % students of medical university were normal or had no threat of suicide attempt in their life whereas 16.5% students of medical university were had threat of suicide attempt. Present study also reported that 69.5 % of students of medical university were normal or had no suicidal behaviour in the future whereas 30.5% self-reported likelihood of suicidal behaviour in the future ranging from rather unlikely, unlikely, likely and rather likely. These finding are supported by **Asfaw H , Yigzaw N et al (2020)[43]** reported that in Northwest Ethiopia prevalence of suicidal ideation and attempt were attempt among medical students was found to be 23.7% and 3.9% respectively. A study conducted by **Coentre R, Góis C et al (2018)[44]** in Europe reported that the prevalence of suicidal ideation among medical students was ranged from 1.8% to 53.6% respectively. The study conducted by **El-Sayed Mohamed, Simon Miriam A, et al (2020)[45]** in oman reported that the prevalence of suicidal ideation 33.4% of medical students.

On the contrary, **Patel A H et al. (2017)[48]** reported that none of the medical and paramedical student was found with active suicidal ideation of planning. One third of total study participants reported the feeling of hopelessness sometime in their life but not active suicide plan and attempt in their life.

In present study it was found that students of medical university 3% had very high-level risk, 5 % had high level risk, 10 % had intermediate risk whereas 82 % had low level risk.
These findings are supported by **(Borowsky W I, et. al, 2013)[29]** in south Africa 6.1% of students reported frequent perpetration only, 9.6% frequent victimization only, and 3.1% both, suicidal thinking or a suicide attempt was reported by 22% of perpetrators only, 29% of victims only, and 38% of bully-victims.

In present study it was found that the mean (SD) was highest in family alliance whereas it was lowest in suicide related concern for suicidal ideation. This finding is in consistent with available literature. This finding supported by **Desalegn, G.T et al (2020)[42]**, reported that 95% current khat chewing 95% poor social support were factors significantly associated with suicide ideation; whereas, female sex 95% depression and history of mental illness were factors significantly associated with suicide attempt.

Similarly, Amado P, Alexander **et al. (2013)[46]** reported that history of illicit psychoactive substance use 95% and perception of poor academic performance over the past year 95%. The logistic regression model correctly classified 85% of the subjects with a history of suicidal ideation. Another study conducted by **C R Moutinho (2015)[49]** reported that prevalence of depression in medical students ranged from 2.9% to 38.2%, suicidal ideation from 4.4% to 23.1% and suicidal attempts from 0.0% to 6.4%. Studies suggest that prevalence of depression is higher in female medical students.

## SUMMARY

A quantitative descriptive approach with cross sectional survey design was adopted for the study and the objectives of the study were:

1. To assess the suicidal ideation among students.
2. To assess the associated risk factors of suicide ideation in students
3. To determine the association of suicidal ideation with selected socio-demographic variables.

Socio-demographic data sheet was used to assess socio-demographic characteristics, Socio-demographic profile**,** Suicide behaviour Questionnaire-revised (SBQ-R)**,** Reason of Living Inventory (RLI), Nurses' Global Assessment of Suicide Risk (NGASR) was used to assess suicidal ideation and its risk factors among medical students. Analysis and interpretation were done in accordance with objectives. Descriptive and inferential statistics (frequency, percentage, t test, ANOVA test) were calculated. The statistical analysis was done with the help of S.P.S.S. version 21. Discussion was based on standard analysis, current trends and previous researches.

## CONCLUSION

On the basis of the findings of present study, it is concluded that many students have suicidal thoughts, plan as well as few students have attempted suicide in the past. There is a necessity for further investigations to identify the risk factors such as academic stress, stress due to Covid-19 pandemic, burden of extra duties in isolation ward, poor social and peer acceptance support, breakdown of relationship, poor financial support. Past history of psychiatric illness as well history of substance abuse is the major risk factor that leads to suicidal ideation, plan and attempts among students. So, every college should be provided with counselling services but sometime some students may not be able to express all their feelings with the counsellor, friends and relatives because of their shy and introvert personality. In order to overcome this we can advise that they can make new unknown friends without knowing his or her name and share all the feelings with them. Expressing the feelings and stress to an unknown person is a useful strategy to relieve the stress. Other facilities such as yoga, meditation programme should also be arranged to help and overcome the stress and impulsive nature of the students. Effective education strategies will be used so that student enjoy learning rather than considering the studies as a burden or stress. The Ministry of Health should develop a guideline on how to screen and manage suicide ideation and attempt among medical students. Medical students are future doctors and nurses who are in need to be protected from avoidable causes of morbidity and mortality including suicide and educate the student about early warning sign of suicide so that students learn about these signs and help their friends and relatives to reduce the risk of suicide. Suicidal ideation is a frequently occurring phenomenon in medical students. Medical colleges need to establish screening procedures for early detection and intervention of students with emotional distress and suicide risk.

## IMPLICATIONS OF THE STUDY

The findings of the present study have several implications, which are discussed in the following areas:

**Nursing Education**
- Nursing students should be taught about suicidal ideation and its associated risk factors.
- Nursing students should be taught about the early warning signs of suicide.
- Nursing students should be taught about the suicidal risk factors and how does it affect the

mental health as well as physical health.

- Psycho-education for co-morbid psychiatric symptoms and assessment of the occurrence chances of these symptoms when a person is suffering from any form of stress, such education and awareness can be given to nursing students.

## Nursing Practice

- Early screening and appropriate interventions are required for suicidal ideation to avoid psychological and physical problems in future.
- Mental health professionals can explore more about suicidal ideation and all the risk factor and to explore other important parts of mental assessment, and initiate and encourage the discussion about psychiatric disorders, healthy relationships and digital safety.
- In nursing practice, usage of tool for suicidal ideation and its associated risk factors assessment among students.
- Continuing education should be designed to help the nurses to update their knowledge regarding suicidal ideation and its associated risk factors among students

## Nursing Administration

- The administrator should assess the areas of deficits in nurse's knowledge on harmful effects of suicidal ideation and its associated risk factors among students and organize seminar or workshop on those deficit areas.
- The special implication of nursing administration in community is educating them regarding a healthy balance of life, yoga and meditation and educate them how these activities reduce the stress.
- As administrators, provide leadership in coordinating school and community health activities for organizing awareness programmes on warning sign of suicide.
- Nursing administrators should provide counselling services to those students who will be suffering from any type of stress or any psychiatric illness.
- Nursing administrator can prepare pamphlets and posters that may help in making people aware about warning sign of suicide and its risk factors.

## Nursing research

- The findings in the study would help to expand the scientific body of professional knowledge upon which further researches can be conducted.
- Large scale studies can be conducted in consideration of other contributing variables.
- The essence of research is to build a body of knowledge in nursing. The findings of the present study serve as the basis for the professional and the students to conduct further studies. The generalization of the study result can be made by replication of the study.

## RECOMMENDATIONS

- Survey should be done regularly to monitor the suicidal ideation and its associated risk factors among students
- Another study should be conducted on large sample size.

- Extensive detailed research study on this topic can be done using more representative sample
- A qualitative study can be conducted to understand the suicidal ideation and its associated risk factors among students
- A study that employs longitudinal data collection will be required to address this issue, as causal relationship cannot be inferred in this cross-sectional study.

## LIMITATIONS

Suicidal ideation and its risk factor measure by self-report method. Thus, it might be not possible show exact pictures.

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