# Comparative study to assess the risk of suicidal behaviour and use of coping strategies among medical and non-medical students

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***Abstract:***

***Background****: Suicide is the act of taking one's own life on purpose. Suicidal behaviour is any action that could cause a person to die, such as taking a drug overdose or crashing a car on purpose. Every year approximately one million people die from suicide and 10 to 20 times more people attempted suicide worldwide.*

***Materials and Methods****: The present study aimed to compare the risk of suicidal behaviour and coping strategies among the medical and non-medical students. A comparative study was conduct. A self-administered questionnaire was used including structured questionnaire on demographic characteristics, rating scale for suicidal risk behaviour and dichotomous scale for coping strategies. The convenient sample technique was used to select the 15 nonmedical and 15 medical students*

***Results****: the result of this study found that out of 15 medical subjects, 26.66% has mild risk, 26.66% has moderate risk and 46.66% has severe risk of suicidal behaviour. And out of 15 Non medical subjects 26.66% has mild risk, 66.66% has moderate risk and 6.66% has severe risk of suicidal behaviour. Out of 15 medical study subjects more than were found to be having53.33% unhealthy coping strategies, i.e. and rest 46.66% were found to be having healthy coping strategies. Out of 15 non-medical study subjects, more than were found to be having unhealthy coping strategies i.e. and rest 60% were found to be having healthy coping strategies and 40% were found unhealthy coping strategies. The computed t paired test value of mean between risk of suicidal behaviour and coping strategies used by medical students was found to be 9.37 and 6.52 which were higher than 0.05 level of significance. This indicate that was statistically non-significant relationship.*

***Key Word****: Students, Suicidal behaviour, coping strategies*

## I. Introduction

The word suicide breaks down in to the Latin word Sui and Ceadere which together translate to "killing oneself". Suicide is a type of the deliberate self-harm and is defined as an intentional human act of killing oneself. Suicide has become one of the biggest social problems of our time affecting all our lives or the others. It is a day to day experience and every day news in a society[1]. Suicide is third leading cause among 15 to 24 and the second leading cause among college students[2]. According to WHO estimation in the year 2000 approximately people die from suicide and 10 to 20 times more people attempted suicide worldwide. This represents one death every 40 seconds and one attempt every 3 seconds on average[3].

## II. Material And Methods

This comparative study was carried out on students of medical and non-medical college of Moradabad, Uttar Pradesh. A total 30 subjects (both medical and non-medical) were in this study.

**Study Design:** Comparative study

**Study Setting**: This study done in Vivekanand College of Nursing and Wilsonia Degree College, Moradabad, Uttar Pradesh.

**Sample size:** 30 students.

**Sample population**: Medical and Non-medical students

**Sampling technique**: Convenient sampling techniques

**Sample size calculation:** The sample size was estimated on the basis of a single proportion design.

**Subjects & selection method**: The study population was drawn from students who presented in Vivekanand College of Nursing and Wilsonia Degree College. In this study the sample were selected by convenient sampling technique in which 15 students were selected from non-medical college and 15 were selected from medical college.

**Inclusion criteria:**

1. Students who were studying in selected college
2. Students who were studying in bachelors.

**Exclusion criteria:**

1. Students who were not present at the time of study
2. Students who were not willing to participate in the study.

**Procedure methodology**

After written informed consent was obtained, a self-structured questionnaire was used to collect the data of the recruited students conveniently. The questionnaire included socio-demographic characteristics such as age, gender, educational status, religion, marital status, family monthly income, type of residence and type of family. The rating scale was used for assess the suicidal risk behaviour and dichotomous scale was used to assess the coping strategies.

In every subject, a self-structured questionnaire was administered to collect detailed information on suicidal risk behaviour and coping strategies used by students over the past year.

**Statistical analysis**

Data was analyzed by descriptive and inferential statistics. The demographic characteristics of the study subjects were described using frequency and percentage. Mean and standard deviation were calculated to assess the risk of suicidal behaviour and use of coping strategies. The mean and standard deviation were also computed to drive three categories of risk of suicidal behaviour mild risk, moderate risk, and severe risk and for coping strategies drives healthy and unhealthy. The paired *t*-test was used to compare the calculated mean value of suicidal risk and coping strategies to establish the significant relationship.

### III. Result

In this study result was found.

Severe risk of suicidal behaviour in medical students 46.67% and non-medical students have 6.68%.

Moderate risk of suicidal behaviour in medical students 33.33% and non-medical students 26.66%.

Mild risk of suicidal behaviour in medical students 20% and non-medical students 66.66%.
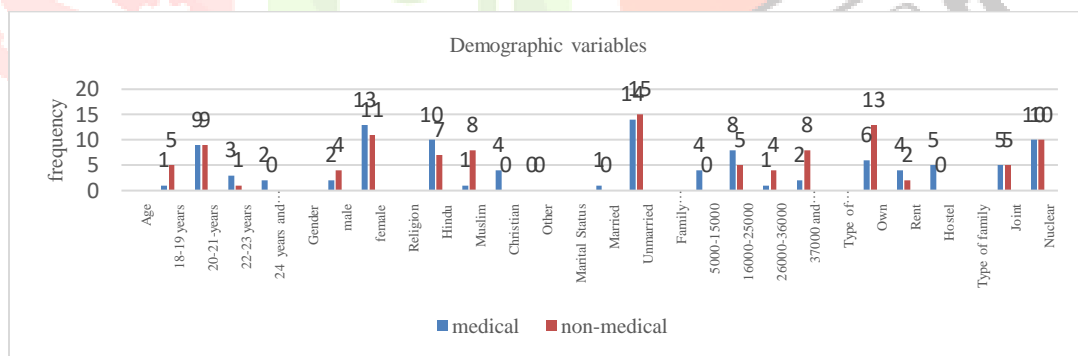
53.34 % medical students and 40% non-medical students were used unhealthy coping strategies.

46.66% medical students and 60% non-medical students were used healthy coping strategies.

**Table no 1:** Shows frequency distribution of the medical and non-medical students by their demographic characteristics

| S.no | Sample characteristics | Medical | | Non-medical | |
|------|------------------------|-----------|------------|-----------|------------|
| | | **Frequency** | **Percentage** | **Frequency** | **Percentage** |
| **1** | **Age** | | | | |
| | 18-19 years | 1 | 6.7% | 5 | 33.3% |
| | 20-21-years | 9 | 60 % | 9 | 60% |

| | | | | | |
|---|---|---|---|---|---|
| | 22-23 years | 3 | 20% | 1 | 6.7% |
| | 24 years and above | 2 | 13.3% | 0 | 0 |
| **2** | **Gender** | | | | |
| | male | 2 | 13.3% | 4 | 26.7% |
| | female | 13 | 86.7% | 11 | 73.3% |
| **3** | **Religion** | | | | |
| | Hindu | 10 | 66.7% | 7 | 46.7% |
| | Muslim | 1 | 6.7% | 8 | 53.3% |
| | Christian | 4 | 26.7% | 0 | 0 |
| | Other | 0 | 0 | 0 | 0 |
| **4** | **Marital Status** | | | | |
| | Married | 1 | 6.7% | 0 | 0 |
| | Unmarried | 14 | 93.3% | 15 | 100% |
| **5** | **Family monthly income** | | | | |
| | 5000-15000 | 4 | 26.7% | 0 | 0 |
| | 16000-25000 | 8 | 53.3% | 5 | 33.3% |
| | 26000-36000 | 1 | 6.7% | 4 | 26.7% |
| | 37000 and above | 2 | 13.3% | 8 | 53.3% |
| **6** | **Type of residence** | | | | |
| | Own | 6 | 40% | 13 | 86.7% |
| | Rent | 4 | 26.7% | 2 | 13.3% |
| | Hostel | 5 | 33.3% | 0 | 0 |
| **7** | **Type of family** | | | | |
| | Joint | 5 | 33.3% | 5 | 33.3% |
| | Nuclear | 10 | 66.7% | 10 | 66.7% |



**Figure: 1**

The data shows that in table 2 the range of obtained scores of the subjects was form by computed mean of medical students 64.66 and non-medical students 94.4 and standard deviation of medical students 8.68 and non-medical students 7.57.

**Table no2:** Mean, standard deviation of risk of suicidal behaviour of medical and non-medical students.

| Categories | Possible range of scores | Range of obtained scores | Mean | Standard Deviation |
|---|---|---|---|---|
| Medical | 27-108 | 49-81 | 64.66 | 8.68 |
| Non-medical | | 84-107 | 94.4 | 7.57 |

The data in table 3 indicate that out of 15 subjects of medical students, 20% has mild risk 33.33% has moderate risk and 46.67 % has severe risk. As an out 15 subjects of non-medical students, 66.66% has mild risk, 26.66% has moderate risk and 6.68% has severe risk of suicidal behaviour.

**Table no 3:** frequency and percentage distribution to assess the risk of suicidal behaviour in medical and non-medical students

n=30

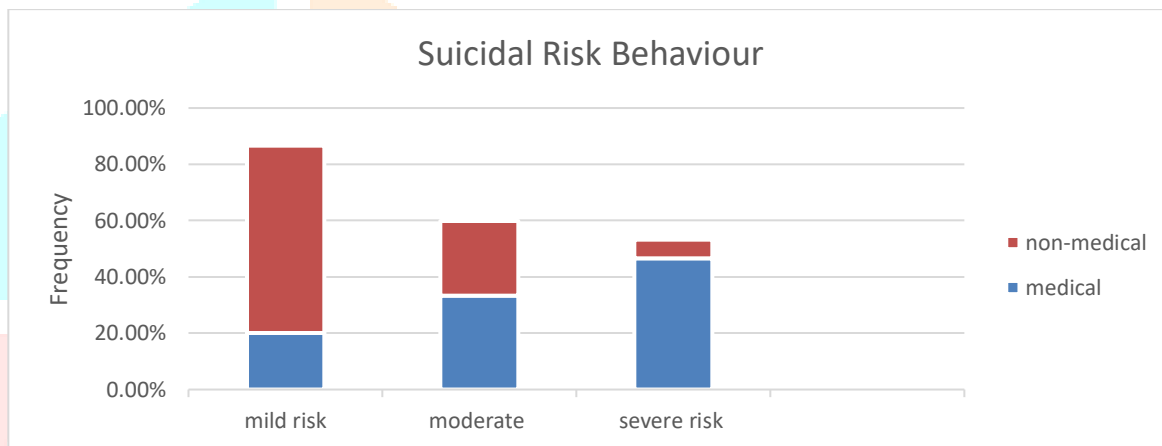| Categories | Possible range of scores | Medical | | Non-medical | |
|---|---|---|---|---|---|
| | | Frequency | percentage | Frequency | Percentage |
| Mild risk | 27-108 | 3 | 20% | 10 | 66.66% |
| Moderate risk | | 5 | 33.33% | 4 | 26.66% |
| Severe risk | | 7 | 46.67% | 1 | 6.68% |



**Figure: 2**

The data in the table 4 show that out 15 study subject non-medical student more than were found to having unhealthy coping strategies i.e. 60% were found to be having healthy coping strategies and 40% were found unhealthy coping strategies. As an out 15 study subject medical students more than were found to be 53.34% having unhealthy coping strategies and rest 46.66% were found to be having healthy coping strategies.

**Table no 4:** frequency and percentage distribution to assess the coping strategies in medical and non-medical students

n=30

| Categories | Possible range of scores | Frequency | | Percentage | |
|---|---|---|---|---|---|
| | | Medical | Non-medical | Medical | Non-medical |
| Unhealthy coping strategies | 25-50 | 08 | 06 | 53.34% | 40% |
| Healthy coping strategies | | 07 | 09 | 46.66% | 60% |
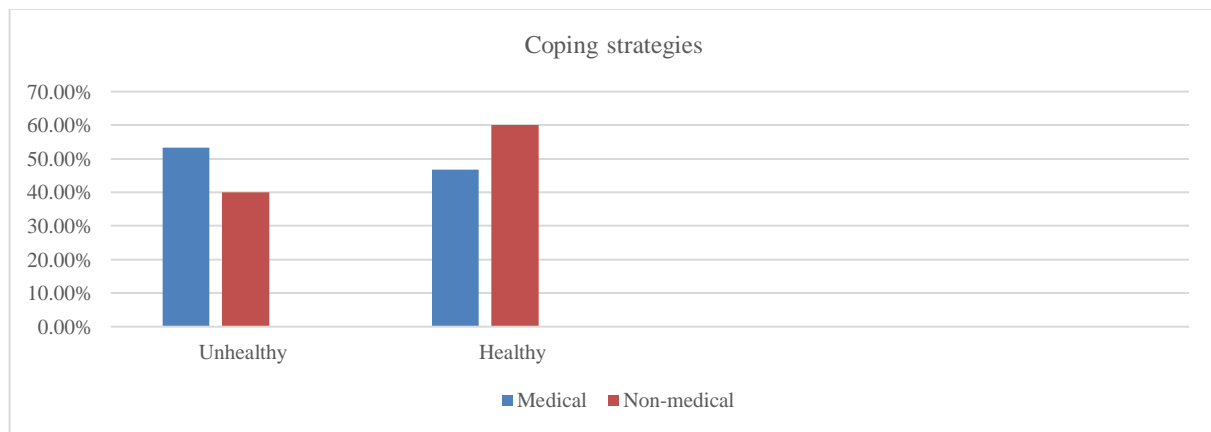
**Figure: 3**

The data in table 5 show that computed t paired test value of mean between risk of suicidal behaviour and coping strategies used by medical and non-medical students was found to be 9.37 and 6.52 which were higher than 0.05 level of significance.

**Table no 5:** shows compare the mean value of risk of suicidal behaviour and coping strategies used by medical and non-medical students

| Categories | Subjects | Mean value | S.D value | df | T paired test value |
|---|---|---|---|---|---|
| Risk of suicidal behaviour | Medical students | 64.66 | 8.68 | 14 | 9.37* |
| | Non-medical students | 94.4 | 7.57 | | |
| Coping Strategies | Medical students | 34 | 4.47 | 14 | 6.52* |
| | Non-medical students | 43.33 | 2.35 | | |

## IV. Discussion

In this study finding related to demographic variables of study subjects in which 15 medical students,6.7% were of 18-19 years of age group, 60% were from 20-21 years of age group, 20% were from22-23 years of age group and 13.3% were from 24 and above of age group. In 15 non-medical students 33.35% were from 18-19 years of age, 60% were from 20-21 years of age group, 6.7% were from22-23 years of age group and 0% were from 24 and above of age group. The data shows that out of 15 medical students, 13.3% were male and 86.7% were female subjects, where as in 15 non-medical students, 26.75% were male and 73.3% were female subjects. Out of 15 medical students, 66.7% subjects belongs to Hinduism, 6.67% belongs to Muslim and 26.75% subjects belongs to Christianity, and in 15 non-medical students, 46.7% subjects belongs to Hinduism and 53.3% belongs to Muslim. The data reveals that out of 15 medical students 93.3% subjects were unmarried and 6.7% were married, where as in 15 non-medical students, all 100% subjects were unmarried. By the collected data we came to know that out of 15 medical students, 26.7% subjects belongs to 5000-15000 family monthly income, 53.35% belongs to 16000-25000 family monthly income, 6.7% subjects belongs to 26000-36000 of family income and 13.3% subjects belongs to 16000-25000 monthly income, 26.7% subjects belongs to 37 and above monthly income. The data shows that out of 15 medical students, 40% lives at their own residence, 26.7% were living at rented house and 33.3% subjects were in hostel. In 15 non-medical student, 86.7% lives at their own residence and 13.3% were living on rent. The data shows that out of 15 medical students, 33.3% subjects were from joint family and 66.7 % subjects lsere from nuclear family. Out of 15 non-medical medical students, 33.3% were belongs to joint family and 66.75% belongs to nuclear family. The range of obtained scores of the subjects was form by computed mean of medical students 64.66 and non-medical students 94.4 and standard deviation of medical students 8.68 and non-medical students 7.57.Out of 15 subjects

of medical students, 20% has mild risk 33.33% has moderate risk and 46.67 % has severe risk. As an out 15 subjects of non-medical students, 66.66% has mild risk, 26.66% has moderate risk and 6.68% has severe risk of suicidal behaviour. Out 15 study subject of non-medical student more than were found to having unhealthy coping strategies i.e. 60% were found to be having healthy coping strategies and 40% were found unhealthy coping strategies. As an out 15 study subject medical students more than were found to be 53.34% having unhealthy coping strategies and rest 46.66% were found to be having healthy coping strategies. The computed t paired test value of mean between risk of suicidal behaviour and coping strategies used by medical and non-medical students was found to be 9.37 and 6.52 which were higher than 0.05 level of significance

## V-Conclusion

This study indicate that there was a statistically non-significant relationship between suicidal risk behaviour and coping strategies among medical and nonmedical students. Medical students having severe risk of suicidal behaviour as comparison of non-medical students, same as medical student practice more unhealthy coping strategies as comparison of non-medical students.

## VI-References

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