



## EFFECTIVENESS OF MULTICOMPONENT INTERVENTION ON ANXIETY AND DEPRESSION AMONG PERSONS WITH ATTEMPTED SUICIDE.

### Nursing

**Mrs. Sherin K Sabu\***

MSc Nursing, Mental Health Nursing Speciality, Govt. College of Nursing Kottayam.  
\*Corresponding Author

**Mrs Mariamma P Alexander**

Associate Professor Govt. College of Nursing Kottayam.

### ABSTRACT

The present study investigates the Effectiveness of Multicomponent intervention on anxiety and depression among persons with attempted suicide. The study was conducted among sixty persons with attempted suicide, attending Suicide prevention clinic, Medical College Hospital, Kottayam. The research design selected for this study was quasi experimental pretest posttest control group design. Socio personal data sheet, State trait anxiety inventory (STAI) and Beck Depression Inventory II were the tools used for the study. The researcher selected thirty persons with attempted suicide to experimental group and thirty to control group by purposive sampling technique. Multicomponent intervention was an intervention programme which consisted of psychoeducation on ways to manage anxiety and depression, Jacobson's progressive muscle relaxation exercise, guided imagery, self compassion brochure preparation and group game. The socio personal data were analysed using frequency and percentage distribution. Effectiveness of Multicomponent intervention was analysed using Mann-Whitney U test. Correlation was analysed using Spearman's rank correlation co-efficient. The present study revealed that Multicomponent intervention was effective in reducing anxiety and depression among persons with attempted suicide and the obtained U value was statistically significant at 0.01 level. Healthcare professionals should incorporate Multicomponent intervention in their clinical practice to manage anxiety and depression among persons with attempted suicide, thereby reducing further suicide attempt.

### KEYWORDS

anxiety; depression; Multicomponent intervention; persons with attempted suicide.

### INTRODUCTION

There is no one reason why a person commits suicide. For many it's a response to loss, separation and despair, for some it is a relief from helpless existence and hopeless future, for some it may be an impulsive act or revenge for rejection. Suicide can be a response to disordered thinking, a toxic static or cognitive distortion. Suicide is the result of a complex interaction of biological, genetic, psychological, social, cultural and environmental factors.<sup>1</sup>

Many people die by suicide because depression is triggered by several negative life experiences, and the person does not receive treatment or does not receive effective treatment for the depression.<sup>2</sup> Anxiety disorders consistently been associated with an increase in suicidal behavior in cross sectional studies.<sup>3</sup>

Suicidality is a unique condition requiring a unique and targeted treatment, there was even consideration of making it a separate category in the fifth edition of the Diagnostic and Statistical Manual of mental disorders (DSM-5), rather than regarding it as a symptom of other mental health disorders. When we look at suicide as the focus of treatment, we are better able to target the skills deficit from which suicidal people suffer. We can better teach healthy strategies for staying alive and collaborate with the client, sharing the responsibility for his or her survival.<sup>4</sup>

Suicide is a complex, yet preventable public health problem resulting from the interaction of psychological, social, biological, and environmental factors. The burden of suicide does not weigh solely on the health sector but it has multiple impacts on many sectors and on society as a whole.<sup>5</sup> With timely and effective evidence-based interventions, treatment and support, both suicides and suicide attempts can be prevented. The prevention of suicide is equally complex and, while feasible, is not an easy task: it involves a whole series of activities, ranging from the environmental control of risk factors and means, through the early identification and effective treatment of people with mental and substance use disorders.<sup>6</sup>

### OBJECTIVES OF THE STUDY

1. To assess the level of anxiety and depression among persons with attempted suicide.
2. To evaluate the effectiveness of Multicomponent intervention on anxiety among persons with attempted suicide.
3. To evaluate the effectiveness of Multicomponent intervention on depression among persons with attempted suicide.
4. To determine the correlation between anxiety and depression

among persons with attempted suicide.

5. To find out the association of anxiety and depression among persons with attempted suicide with selected variables.

### MATERIALS AND METHODS:

Present study was conducted among 60 persons with attempted suicide attending Suicide prevention clinic, Medical College Hospital, Kottayam, Kerala to find out the effectiveness of Multicomponent intervention on anxiety and depression. Quasi experimental pretest posttest control group design was used. Thirty persons with attempted suicide were purposively selected to experimental group and thirty to control group. Pretest was conducted in samples using socio personal data sheet for persons with attempted suicide, Spielberger's state trait anxiety inventory was used for assessing anxiety and Beck Depression Inventory II was used for measuring depression. Three sessions of Multicomponent intervention (psychoeducation on ways to manage anxiety and depression, Jacobson's progressive muscle relaxation exercise, guided imagery, self compassion brochure preparation and group game) were given to the experimental group for 1 hour per day for three consecutive weeks after pretest. The posttest was done on 21<sup>st</sup> day after pretest. No interventions were given to the control group.

The socio personal data was analysed using frequency distribution and percentage. Effectiveness of Multicomponent intervention on anxiety and depression on experimental group in comparison with control group was analysed using Mann-Whitney U test. Correlation between anxiety and depression among persons with attempted suicide was analysed using Spearman's rank correlation coefficient. Association of anxiety and depression among persons with attempted suicide with selected variables was analysed using Chi-square test. The data were analysed using the licensed SPSS 21.0 version software.

### RESULTS:

#### *Socio personal data of persons with attempted suicide in control and experimental group.*

Among the study participants, 50% of the persons with attempted suicide in control group and 60% in experimental group belonged to the age group of 20-30 years of age. Considering the gender, majority of persons with attempted suicide (60% in control group and 57% in experimental group) were females. It also showed that 40% of the persons in control group and 43% of the persons in experimental group were unemployed. Regarding the type of family, majority of the persons with attempted suicide in control group (83%) and in experimental group (96.7%) belonged to nuclear family.

Considering the marital status of persons with attempted suicide, 56.7

% of the persons in control and 50% in experimental group were married living together. About 30 % of persons from control group and 26.7 % of persons from experimental group had attempted suicide due to extramarital affairs of their spouse. In control group 16.7% of persons attempted suicide due to broken family and financial issues, whereas 20% of persons in experimental group were attempted suicide due to broken family.

#### *Anxiety of persons with attempted suicide (Table 1)*

**Table 1 Frequency distribution and percentage of persons with attempted suicide in control and experimental group based on anxiety.**

(n=60)

| Anxiety                      | Control group<br>(n=30) |    | Experimental<br>group (n=30) |    | df | $\chi^2$ |
|------------------------------|-------------------------|----|------------------------------|----|----|----------|
|                              | f                       | %  | f                            | %  |    |          |
| Mild anxiety (40-70)         | 6                       | 20 | 4                            | 13 | 2  | 0.56     |
| Moderate anxiety<br>(80-119) | 24                      | 80 | 26                           | 87 |    |          |

Study revealed that majority of the persons with attempted suicide (80% in control and 87% experimental group had moderate anxiety (80-119). Study also revealed that 20% of persons in control group and 13% of persons in experimental group had mild anxiety (40-70).

#### *Depression of persons with attempted suicide (Table 2)*

**Table 2 Frequency distribution and percentage of persons with attempted suicide in control and experimental group based on depression.**

(n=60)

| Depression                  | Control group<br>(n=30) |    | Experimental<br>group (n=30) |    | df | $\chi^2$ |
|-----------------------------|-------------------------|----|------------------------------|----|----|----------|
|                             | F                       | %  | f                            | %  |    |          |
| Mild depression (14-19)     | 12                      | 40 | 17                           | 57 | 1  | 0.62     |
| Moderate depression (20-28) | 18                      | 60 | 13                           | 43 |    |          |

The study depicts that 60 % of persons with attempted suicide in control group and 43% in experimental group had moderate depression (20-28) whereas 12% of persons in control group and 57% of persons in experimental group had mild depression (14-19).

#### *Effectiveness of Multicomponent intervention on anxiety among persons with attempted suicide between control and experimental group*

Mann Whitney U test was used to find out the effectiveness of Multicomponent intervention on anxiety among persons with attempted suicide between control and experimental group ( $U=134$ ;  $p<0.01$ ). It was revealed that the obtained U value was statistically significant at 0.01 level in the posttest. Hence it was inferred that there was a statistically significant difference in the pretest and posttest anxiety levels among persons with attempted suicide between control and experimental group. This indicates that Multicomponent intervention was effective in reducing the anxiety among persons with attempted suicide.

#### *Effectiveness of Multicomponent intervention on depression among persons with attempted suicide between control and experimental group*

Mann Whitney U test was used to find out the effectiveness of Multicomponent intervention on depression of persons with attempted suicide between control and experimental group ( $U=153$ ;  $p<0.01$ ). It was revealed that the obtained U value was statistically significant at 0.01 level in the posttest. Hence it was inferred that there was a statistically significant difference in the pretest and posttest depression levels among persons with attempted suicide between control and experimental group. This indicates that Multicomponent intervention was effective in reducing the depression among persons with attempted suicide.

#### **Correlation between anxiety and depression among persons with attempted suicide.**

The Spearman's rank correlation coefficient was used to find out the correlation between anxiety and depression among persons with attempted suicide. The obtained 'rho' value was significant at 0.05 level. Hence it was inferred that there was positive correlation between anxiety and depression among persons with attempted suicide.

#### **Association between anxiety and depression among persons with attempted suicide with selected variables**

The chi square value of gender and reason for current suicide attempt were statistically significant at 0.05 level. Hence it is revealed that there is a significant association between anxiety with gender and reason for current suicide attempt. The study also revealed that there was no statistically significant association between depression among persons with attempted suicide and selected variables.

#### **DISCUSSION**

The present study was focused on the effectiveness of Multicomponent intervention on anxiety and depression among persons with attempted suicide attending, Suicide prevention clinic, Medical College Hospital, Kottayam. The findings of the study have been discussed with reference to the objectives in the light of other studies.

The sample characteristics of the study showed that, 50% of the persons with attempted suicide in control group and 60% experimental group belonged to the age group of 20-30 years. This was consistent with a study conducted in India which showed that majority of the suicide attempters (63%) were less than 30 years of age. This finding highlights the importance of suicide prevention strategies as more number of lives lost in the most productive period of the lifetime.<sup>7</sup>

It was found that 60% of persons with attempted suicide in control group and 57 % in experimental group belonged were females. Globally, attempted suicide is common among women and completed suicide is common in men. Men commonly use more lethal modes and plan the act more meticulously to avoid detection. In contrast, women commonly use less lethal modes, and are more impulsive, less well planned, and more likely to be found and rescued. The male: female suicide ratio was 1:78 in India in 2008 and 2009.<sup>8</sup>

The present study revealed that 40 % of the persons in control group and 43% of the persons in experimental group were unemployed. This finding was consistent with a study conducted in India which shows that among the suicide attempters, 46% were unemployed.<sup>8</sup> Here the investigator assumes that, there is a fairly strong association between unemployment rates and suicide, but the nature of this association is complex. Unemployment may drive up the suicide risk through factors such as poverty, social deprivation, financial difficulties, and hopelessness.

It was also evident that a majority (83.3% in control group and 96.7% in experimental group) of samples belonged to nuclear families. India has witnessed a change in family structure during recent decades, with more people moving out of joint and extended families into nuclear family structures. The effect of this change on suicide rate has not been systematically studied. Varying results in research may tap a secular trend. The majority of suicide attempters were from nuclear families, possibly reflecting the role of social integration, though an earlier study shows that more suicide attempters come from joint families.<sup>8</sup>

In the present study 56.7 % of the persons with attempted suicide in control and 50 % in experimental group were married living together, Studies had shown marriage is not a strong protective factor for suicide attempts in developing countries. In 2009, 70.4% of all suicide victims in India were married and 21.9% were unmarried.<sup>8</sup> Here the investigator assume that marital problems, especially divorce, has strong net effect on suicidal attempts.

About 30 % of persons from control group and 26.7 % of persons from experimental group had attempted suicide due to extramarital affairs of their spouse. In control group 16.7% of persons attempted suicide due to broken family and financial issues, whereas 20% of persons were attempted suicide due to broken family. This findings were consistent with a study on the factors associated with suicide in Tamil Nadu reported recent adverse life events, interpersonal stress and relationship difficulties, severe financial distress, the use of alcohol, and issues related to gender, as risk factors for suicide.<sup>9</sup>

The present study results shows that majority of the persons (80% in control and 87% experimental group) had moderate anxiety and the study also depicts that 60 % of persons with attempted suicide in control group had moderate depression where as 57% of persons in experimental group had mild depression.

The results are consistent with a correlational study conducted to

assess relationship between anxiety disorders and suicide. Results suggested that among individuals reporting a lifetime history of suicide attempt, over 70% had an anxiety disorder.<sup>10</sup>

This was also supported by another study conducted at Tirunelveli Medical College Hospital to assess the prevalence of major depressive disorder among persons who attempted suicide showed that 20 % had moderate or severe depression as per ICD-10 major depressive disorder inventory.<sup>7</sup> studies also identified that, the presence of an anxiety disorder is the single strongest risk factor for development of depression.<sup>11</sup>

The major objective of the study was to determine the effectiveness of Multicomponent intervention on anxiety and depression among persons with attempted suicide. Finding from the present study showed that anxiety and depression of persons were reduced after Multicomponent intervention in the experimental group. Since persons with attempted suicide have multiple skill deficits, a single intervention is not effective in reducing anxiety and depression among these persons.

The present study was supported by a narrative review conducted in Australia which showed that Multicomponent interventions were most effective in reducing depression and anxiety among suiciders and thereby reduce the rate of suicide.<sup>12</sup>

The present study results showed that there was a positive correlation between anxiety and depression among persons with attempted suicide. That means as the anxiety increases depression also increases among persons with attempted suicide. A variety of factors have been identified as being risk factors for suicidal behavior. Anxiety disorders often co-occur with depression, and this may be masking a risk of suicide specifically related to anxiety.<sup>13</sup>

The findings of the present study generate some implications to the health care delivery system. Nurses should identify the severity of the anxiety and depression among persons with attempted suicide. Nurses working in psychiatric wards should use Multicomponent intervention as a group approach to reduce anxiety and depression among persons with attempted suicide during their stay in hospital and in follow up.

## REFERENCES

1. Vijayakumar L, editor. Suicide prevention: Meeting the challenge together. Orient Blackswan; 2003.
2. Caruso K. Suicide causes. Michigan grand publishers, 1994. Available from <https://www.suicide.org/suicide-causes.html>. (Retrieved on 12/7/2018)
3. Sareen J, Cox BJ, Afifi TO, et al. Anxiety Disorders and Risk for Suicidal Ideation and Suicide Attempt: Arch Gen Psychiatry. 2005; 62(555):1249–1257.
4. Firestone L. Suicide prevention-Treatment that works-psychologytoday.2013 Sep. Available from <https://www.Psychologytoday.com>. (Retrieved on 8/7/1018)
5. Khurana A, Romer D. Modeling the distinct pathways of influence of coping strategies on youth suicidal ideation: a national longitudinal study. Prev Sci. 2012 Dec; 13(6):644-54
6. Herbert H, Michael R. Phillips, Lakshmi V, Jane Pirkis. Suicide and Suicide Prevention in Asia, World Health Organization. May 2008; Available from: <http://www.who.int/mentalhealth/resources/suicideprevention>. (Retrieved on 10/3/2019)
7. Ramanujan G Rahuman A, Mahalakshmi R. Prevalence of depression among people who attempt suicide. Int J Res Med Sci 2017(5): 4108-11.
8. Radhakrishnan R, Andrade C. Suicide: an Indian perspective. Indian J psychiatry. 2012 Oct; 54 (4): 304.
9. Soman CR, Safraj S, Kutty VR, Vijayakumar K, Ajayan K. Suicide in South India: a community-based study in Kerala. Indian J psychiatry. 2009 Oct; 51 (4):261.
10. Nepon J, Belik SL, Bolton J, Sareen J. The relationship between anxiety disorders and suicide attempts: findings from the National Epidemiologic Survey on Alcohol and Related Conditions. Depression and anxiety. 2010 Sep; 27 (9):791-8.
11. Judd L. Comorbidity and health costs, International med news 1994;92 (2):4-5.
12. Christensen H, Farrer L, Batterham PJ, Mackinnon A, Griffiths KM, Donker T. The effect of a web-based depression intervention on suicide ideation: secondary outcome from a randomised controlled trial in a helpline. BMJ open. 2013 Jun 1; 3 (6):e002886.
13. Andreasen NC, Rice J, Endicott J, Coryell W, Grove WM, Reich T. Familial rates of affective disorder: a report from the National Institute of Mental Health Collaborative Study. Arch Gen psychiatry. 1987 May 1; 44 (5):461-9.