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Designing and implementing a suicide intervention and prevention program in Ilam province during the years 2023-2024 (Policy Brief)

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A B S T R A C T

Introduction: Suicide is considered one of the serious mental health problems in the country and Ilam province. Various studies have outlined the epidemiological picture of suicide in Ilam province, but no intervention has been designed to combat it so far. This study aimed to design and implement a comprehensive suicide intervention and prevention program in Ilam province during the years 2023-2024.

Materials & Methods: This study was a community trial study that was conducted at three societies: the general population, high-risk population (schools, families of suicide victims), and suicide victims. To identify high-risk individuals, the DASS-21 questionnaire and suicidal thoughts were used at the general population and high-risk population levels. Suicidal individuals and all high-risk individuals identified by the DASS-21 questionnaire and suicidal thoughts were referred to the suicide clinic for psychological and psychiatric counseling. Inferential statistical tests were used to analyze the data using STATA V.15 software at a significance level of less than 5%.

Results: The number of samples included in the study was 2974, consisting of 131 students, 2550 general population, 205 suicide victims, and 88 family members of suicide victims. The findings showed that the prevalence of mental disorders in students, the general population, and suicide victims was 85.0%, 48.9%, and 97.7%. Among the suicide victims, 103 (49.8%) committed suicide due to family problems, while only 19.8% committed suicide due to mental problems. The majority of the individuals (74.1%) committed suicide impulsively, and 77.8% of them did not feel remorse after committing suicide. The highest number of suicides occurred in the evening (between 4:00 PM and 8:00 PM) (42.0%). Additionally, the majority of individuals (58.7%) committed suicide by overdosing on medication, while only 9.2% committed suicide by taking rice pills. The results of the study showed that if psychological counseling services were provided to people who had committed suicide, the rate of repeated suicide attempts would be reduced to 1%.

Conclusion: Considering that psychological counseling for people who have committed suicide can reduce the rate of repeated suicide attempts to 1%, it is recommended that this program be implemented on a larger scale.

Keywords: Suicide, Intervention Program, Suicidal Thoughts, Ilam, Policy Brief

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Introduction

One of the major mental health issues is suicide. The World Health Organization estimates that among young individuals between the ages of 15 and 29, it ranked third in the cause of death in 2021 (1). From roughly 3,500 cases annually to more than 5,000 cases, official statistics in Iran suggest that the suicide rate in Iran has risen by more than 40% over the past ten years. At least 13 suicides are reported daily by the Ministry of Health, with an average age of 29—much below the average age of suicide in Western nations (3). Iran is the third nation to show a concerning rise in the suicide rate among women; the rate among Iranian women is rising more than that of men. Published data and numbers on the frequency of mental diseases in many nations, including Iran, amply show the need to give mental health top priority. One in eight individuals, or over 970 million people globally, had a mental illness in 2019; anxiety disorders and depression were the most often occurring ones. The count of persons suffering with these diseases rose noticeably in 2020 (5). Ten to fifteen percent of people with severe depression finally die; over two-thirds of them contemplate suicide (6). Furthermore, follow-up research on depressed individuals reveals that approximately one in six (15%) of them die from suicide attempts and actually commit successful suicides. While men are 2–3 times more likely to try suicide than women, depressive men are more likely than sad women to do so (7).

Research on suicide in the province of Ilam primarily looks at the prevalence of suicide in various cities, the trend in suicide in recent years, the factors that contribute to successful suicide, the techniques used to commit suicide, and the frequency of its causes (8). This is especially crucial and one of the most critical approaches to stop this occurrence. Additionally, the identification and intervention process depends heavily on elements that can influence the emergence and intensity of suicidal thoughts, which should be carefully taken into account. Globally, seven fundamental suicide prevention techniques have been put out, and research indicates that these techniques have significantly decreased the suicide rate. Numerous studies have verified the efficacy of these tactics, which were all developed based on empirical research (9).

Systematic studies and meta-analyses have been undertaken for several of these treatments, demonstrating that these methods can significantly reduce the incidence of suicide attempts and completed suicides across various communities. The present study aimed to create and administer a comprehensive suicide intervention and prevention program in Ilam province from 1402 to 1403, as no prior intervention research had been undertaken to significantly reduce suicide in the region.

Research Objectives

Main Objectives

To determine the effect of implementing a comprehensive suicide intervention and prevention program in Ilam Province in 1402-1403.

Specific Objectives

1. To determine the level of depression, anxiety, stress, and suicidal thoughts in the study populations (general population, schools, suicide victims, and families of suicide victims) in Ilam Province in 1402-1403.

2. To determine the relationship between mental disorders, including depression, anxiety, and stress, with suicide in the study populations (general population, schools, suicide victims, and families of suicide victims) in Ilam Province in 1402-1403.

3. To determine the effect of psychological intervention on reducing suicide reattempt in suicide victims in Ilam Province in 1402-1403.

Practical Objectives

The current study was designed as the first large-scale study in Ilam province to investigate the effect of psychological intervention on reducing suicidal

thoughts and suicidal reattempt. The results can be made available to educational and therapeutic policy makers, psychologists, psychiatrists, and individuals who are effective in implementing these findings.

Methods

This study was a community trial that was conducted in Ilam province during the years 2023-2024. A census was used for the study groups. For screening, the Anxiety-Stress-Depression (DASS-21) Questionnaire, Beck Suicide Thoughts Questionnaire, Self-Esteem Questionnaire, Life Skills Questionnaire, Anger-Trait Questionnaire, and Premenstrual Syndrome Questionnaire (for women) were used.

Holeylan, Chovar, and Ilam—the three cities with the greatest suicide rates—were chosen as the intervention group in this study. Following screening, the general population, high-risk groups, and those with a history of suicide were all subjected to the intervention. This study's intervention was conducted in two phases: the first phase involved pre-suicide interventions (those conducted on high-risk groups, schools, and the general population) and the second phase involved post-suicide interventions (those conducted on suicide survivors and their families).

Ten life skills, including self-awareness, empathy, helpful communication, problem-solving, decision-making, emotion management, creative and critical thinking, stress coping, and interpersonal relationship skills, were then taught to the general public, schools, high-risk individuals, and people with a history of suicide. Psychological interventions were also offered if necessary, such as crisis intervention for suicide, interventions for mental disorders (depression, paranoia, and suspicion), interventions for workplace conflict, interventions for interpersonal conflict (spouse, family, child, and social relationships), drug interventions for treatment and referrals to psychiatrists (if necessary), and economic interventions (through private and non-governmental organizations).

Also, during the intervention, information was collected about the reason for suicide. Psychological counseling was used for her weekly in the first month and then monthly. Finally, after the intervention, the DASS-21 questionnaire, Beck suicide thoughts questionnaire, self-esteem questionnaire, life skills questionnaire, anger-trait questionnaire, and premenstrual syndrome questionnaire (specific to women) were completed.

Ethical issues included completing an informed consent form to participate in the study, keeping patient data and suicide causes discreet, and not sharing personal information about people who had committed suicide or were at risk of suicide. This study was conducted in accordance with the ethics code IR.MEDILAM.REC.1402.101.

Results

The study comprised 2974 samples, including 131 students, 2550 members of the general population, 205 suicide victims, and 88 suicide victim family members. According to the results, the prevalence of mental disorders was 85.0% in the general population, 48.9% in students, and 97.7% in suicide victims.

Just 19.8% of the suicides were caused by mental health problems, whereas 103 people (49.8%) suicided because of familial issues. Most persons (74.1%) suicided on impulse, and 77.8% of them had no regrets about their actions. The majority of suicides (42.0%) took place in the evening, between 4 and 8 p.m. Additionally, only 9.2% of persons killed themselves by taking Aluminium phosphide pills, but the majority (58.7%) killed themselves by taking too much medication.

The groups' anxiety, stress, and depression levels did not differ significantly prior to screening. But with the intervention, this difference became noteworthy. Stated differently, the research population's suicide reattempt rate decreased by 1% as a result of implementing the suicide risk reduction program.

Discussion

Investigating the effects of a comprehensive suicide intervention and prevention program in Ilam province between 1402 and 1403 was the goal of the current study. According to the findings, the research population's suicide reattempt rate decreased by 1% as a result of using the suicide risk reduction program.

Drugs are frequently used to cause poisoning in urban areas, whereas poisons and pesticides are employed far more frequently in rural areas. The majority of deadly poisonings in rural areas are deliberate and frequently brought on by the use of agricultural pesticides, according to research done in Sri Lanka and forensic data from India (10). According to the findings of an Australian study, heroin addicts had a 14-fold higher risk of dying by suicide than their peers (10). Another study found that opium was responsible for 13% of all suicide-related poisonings in Kerman province, compared to 8% and 3% in Tehran and Isfahan, respectively (11). It can be deduced that over four-fifths of suicides are caused by drug and narcotic poisoning, and that the country's health system is at risk due to the widespread and easy availability to drugs and psychiatric substances (12). Separation, divorce, widowhood, family disputes, stress, or parental legal issues are all signs of a dysfunctional home environment, which is also linked to suicide (13, 14).

People commit suicide when there is a family issue and they are unable to resolve it. In these circumstances, one of the family members typically takes on a stressor role. Parental disputes with one another or the child are examples of these conflicts. This result contrasts with several studies that link suicide to economic poverty (15). Cultural poverty contributes to suicide at a higher rate than economic poor. This result was consistent with other research that found that emotional breakdown, the presence of a serious physical illness in the individual, the presence of a second spouse, families with significant marital problems, and the presence of a family member with an illness all contribute to suicide. Marital issues affect two-thirds of married persons (16). Infidelity, traditional marriages, marital status, a family history of suicide, and a variety of mental illnesses, including depression, substance abuse, eating disorders, borderline personality disorder, and schizophrenia, are some of the factors that can cause people to commit suicide (17, 18). Another factor is marital disputes, as the traditional setting and culture of Ilam make it impossible to resolve issues through current means or divorce, and people typically turn to suicide as a means of escaping their families, which ought to be a safe place to live. Governments should prioritize life skills training to address marriage and family issues, emphasizing problem-solving techniques, identification, and scientific intervention. One way to improve social support and avoid burdening family members is to prepare education programs at the community level (19).

The low prevalence of re-attempts among suicidal individuals following suicide—just 1% of those who were followed and received continued psychiatric treatment after suicide made another attempt—is one of the study's most significant findings. In other words, continuing programs can help avoid re-suicide. This result aligned with multiple other studies that demonstrated that post-suicide caregivers, such as those in nursing and psychology, lower the re-attempt rate (20–22).

Conclusion

It is advised that this program be expanded in scope, given that psychological counseling for those who have already taken their own lives can lower the likelihood of recurrent suicide attempts to 1%.

Suggestion

1) Implementation of supportive initiatives that would lower the number of suicides during the first few months. Families and society may avoid financial and spiritual strains as a result. This can be accomplished by setting up a 24-hour hotline, keeping in regular contact with the family, and offering at least one counseling session per month

until the individual can reintegrate into society. Nonetheless, the authors advise that this program be regarded as one of the tenets of the mental health care system to maximize its effectiveness. It is advised that psychiatric and psychological counseling services be included in the nation's health insurance program because psychological treatment is costly, and many suicide victims cannot afford it.

2) One way to address mental health issues is through macro-level policymaking that emphasizes problem-solving training, identification, and scientific intervention. Policymakers should focus on some of issues when making plans, including de-stigmatizing mental disorders through the media, improving mental hospital conditions to provide the most services to the community, establishing appropriate insurance coverage, raising the awareness of health care providers, creating simple-language educational packages about mental health for the community, enhancing the ability to organize human resources and specialists, and, finally, enhancing inter-sectoral cooperation.

3) People typically choose suicide as a means of escaping from the family, which ought to be a safe place to live, because of the traditional setting, the environment, and the culture of Ilam, which preclude the use of current approaches for problem solving and, at the very least, divorce. In order to address marriage and family issues, governments should prioritize life skills training that emphasizes problem-solving techniques, identification, and scientific intervention. One way to improve social support and avoid burdening family members is to prepare educational programs at the community level. Additionally, enhancing family flexibility, how individuals view themselves within the family, and democratic family leadership and management—particularly for those with less independence—can all be beneficial. It can be beneficial to establish a family where there is no conflict, a high level of unity, and no sense of burdensomeness. It can also be beneficial to assign roles to family members in a way that makes them feel valuable and to respect their independence. Additionally, the rejection style should be eradicated, and families should be more validated for their supportive role.

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Ethics approval

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Conflict of interest

The authors report no conflict of interest in this study.

Authors' contributions

NY, MR and MS participated in data gathering, RP, RV and KS contributed in data analyses and interpretation. HZ and MR did the literature review. Drafting of the paper were done by RP, NY and KS. All authors read, revised, and approved the final manuscript.

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