






Attitudes towards suicidal behavior: the effect of an educational intervention on university professors

Atitudes frente ao comportamento suicida: o efeito de uma intervenção educativa em docentes universitários

Actitudes hacia el comportamiento suicida: el efecto de una intervención educativa en profesores universitarios

Hugo Gedeon Barros dos Santos^a 
 Alice Milani Nespoli^a 
 Samira Reschetti Marcon^a 
 Mariano Martínez Espinosa^b 
 Jesiele Spindler Faria^a 

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ABSTRACT

Objective: To analyze the effect of an educational intervention on the attitudes of university professors towards suicidal behavior.

Methods: Experimental study, which carried out an educational intervention with 100 university professors, divided into two groups, control and intervention, developed in three moments, pre-assessment, intervention, and post-assessment, using the Eskin's Attitudes Towards Suicide Scale (E-ATSS). Comparisons before and after intervention in the same group were performed using the paired t-test for dependent samples and the Wilcoxon Signed Rank Test, and for comparisons between groups the paired t-test for independent samples and the Mann-Whitney U test were used, the significance level adopted was $p < 0.05$.

Results: There was a change in the attitude of professors in the two domains of the suicide scale such as mental illness ($p < 0.001$) and punishment after death ($p < 0.001$) whose attitudes were negative in the pre-assessment phase. For the control group, no changes were observed.

Conclusion: The educational intervention promoted positive changes in attitudes, with a significant change evaluated at the end of the intervention in the domains: suicide as mental illness and punishment after death.

Keywords: Attitude. Teachers. Suicide. Behavior. Teacher training.

RESUMO

Objetivo: Analisar o efeito de uma intervenção educativa nas atitudes de docentes universitários frente ao comportamento suicida.

Métodos: Estudo experimental, que realizou uma intervenção educativa com 100 docentes universitários, divididos em dois grupos, controle e intervenção, desenvolvido em três momentos, a pré-avaliação, intervenção e pós avaliação, utilizando a Escala Eskin de Atitudes em Relação ao Suicídio (E-ATSS). As comparações pré e pós-intervenção no mesmo grupo foram realizadas a partir do Teste t pareado para amostras dependentes e Teste de Postos com Sinais de Wilcoxon, e para comparações entre os grupos utilizou-se o Teste t pareado para amostras independentes e Teste U-Mann Whitney, o nível de significância adotado foi de $p < 0,05$.

Resultados: Observou-se mudança de atitude dos docentes nos dois domínios da escala suicídio como doença mental ($p < 0,001$) e punição após a morte ($p < 0,001$) cujas atitudes eram negativas na fase pré-avaliação. Para o grupo controle não foram evidenciadas modificações.

Conclusão: A intervenção educativa promoveu mudanças positivas de atitudes, com significativa alteração avaliada ao final da intervenção nos domínios: suicídio como doença mental e punição após a morte.

Palavras-chave: Atitude. Docentes. Suicídio. Comportamento. Capacitação de professores.

RESUMEN

Objetivo: Analizar el efecto de una intervención educativa sobre las actitudes de los profesores universitarios hacia la conducta suicida.

Métodos: Estudio experimental, que realizó una intervención educativa con 100 docentes universitarios, divididos en dos grupos, control e intervención, desarrollado en tres momentos, preevaluación, intervención y posevaluación, utilizando la Escala de Actitudes hacia el Suicidio de Eskin (E-ATSS). Las comparaciones antes y después de la intervención en el mismo grupo se realizaron mediante la prueba t pareada para muestras dependientes y la prueba de rangos con signos de Wilcoxon, y para las comparaciones entre grupos se utilizó la prueba t pareada para muestras independientes y la prueba U-Mann-Whitney, el nivel de significación adoptado fue $p < 0,05$.

Resultados: Hubo cambio en la actitud de los docentes en los dos dominios de la escala de suicidio como enfermedad mental ($p < 0,001$) y castigo después de la muerte ($p < 0,001$) cuyas actitudes fueron negativas en la fase de preevaluación. Para el grupo de control, no se observaron cambios.

Conclusión: La intervención educativa promovió cambios positivos en las actitudes, con cambio significativo evaluado al final de la intervención en los dominios: suicidio como enfermedad mental y castigo después de la muerte.

Palabras clave: Actitud. Docentes. Suicidio. Conducta. Formación del profesorado.

^a Universidade Federal de Mato Grosso (UFMT), Faculdade de Enfermagem. Cuiabá, Mato Grosso, Brasil.

^b Universidade Federal de Mato Grosso (UFMT). Cuiabá, Mato Grosso, Brasil.

■ INTRODUCTION

Considered a multifactorial event, suicidal behavior comprises a continuum formed by suicidal ideation, suicide attempts and completed suicide⁽¹⁾. The phenomenon reaches the population in general, and can be observed and analyzed in specific groups with peculiar vulnerabilities, for example university students⁽²⁾. The multicausality of this behavior applies to this population since, parallel or not to personal issues, starting an academic trajectory predisposes to conditions that can weaken students in terms of psychophysical, social and environmental aspects, such as the obligation to determine behaviors for themselves resulting from advancement for young adult phase, need to acquire emotional maturity, possible lack of social support ties, academic pressures, financial dilemmas, close contact with drugs, among others⁽³⁾.

Different situations can aggravate and compromise possible assistance to these students with suicidal behavior, such as the absence of specific health services within the campus, and when these exist, it can be difficult to seek them due to stigma, and especially fear of being approached with negative attitudes⁽⁴⁾.

Mainly explored in the field of social psychology, attitude is a construct that has several concepts elaborated over the last decades and Altmann defined it as an event response to a stimulus that encompasses cognitive, affective and behavioral factors in face of the attitudinal object, and such responsive propensity can occur in a negative or positive way⁽⁵⁾. Attitude is not synonymous of behavior, but rather a trigger for an action, approach or reaction to any type of social situation, such as suicidal behavior whose relationship has gained attention in the scientific environment⁽⁶⁾.

In this context, the literature has shown that training people who have constant contact with individuals who are vulnerable to suicidal behavior are effective strategies to mitigate possible negative attitudes. Once trained and equipped with knowledge about the suicidal event, the individual has the possibility to monitor, identify and help the student who presents such behavior, these individuals who are targets of such training have been called gatekeepers^(3,7-8).

It is evident in the scientific literature intervention research that aims to train and qualify gatekeepers and analyze the change in their attitudes in specific groups such as education professionals⁽⁹⁾, health workers⁽¹⁰⁾, students⁽¹¹⁾, caregivers of elderly⁽¹²⁾, religious and community leaderships⁽¹³⁾, collective community groups such as police officers⁽¹⁴⁾. Specifically in the academic environment, when it comes to suicide in university students, professors make

up a group that is able to become gatekeepers⁽⁹⁾, however, intervention research with university professors is incipient both nationally and internationally.

In view of the above, it is essential to detect the attitudes of professors in face of situations of suicidal behavior, as well as to promote training aimed at modifying behaviors, since positive attitudes substantially contribute to the prevention of suicidal behavior among these university students. Therefore, given the context presented, and anchored in the few studies that deal with the present object, we seek to answer the following question: Are attitudes towards suicidal behavior modified before and after an educational intervention, applied to professors at a public university?

■ METHODS

Study design, location, and period

This is an experimental research with an educational intervention applied to an intervention group (IG) and participation of a control group (CG) in compliance with the CONSORT recommendations. The study was developed at a federal public university in the city of Cuiabá, capital of Mato Grosso (MT), central-west Brazil, in December 2019.

Population, selection criteria

A total of 100 professors from the *Universidade Federal de Mato Grosso* (UFMT), Cuiabá campus, who were active in teaching at the time of data collection participated in the study. As an inclusion criterion, the professor should be active on the campus and professors who taught subjects in the field of mental health/psychiatry or related to the theme were excluded from the study, given the proximity to themes related to suicide, which could be a bias of the study.

Sample definition

At the time of the research, the campus had 1022 active professors. To determine the sample size of the two groups (intervention and control), a formula was used to compare means with unequal size and variances, considering the dependent variable suicide as a sign of mental distress, with a confidence of 95%, a power of 80%, an estimated standard deviation of 0.95 ($\hat{\sigma}_2 = 0,95 = \hat{\sigma}_2$) for the intervention group, obtained in a pilot study, considering 5 students, who were not part of the sample. In this study, the estimated mean was 2.49 and for the control group a standard deviation of 1.22 ($\hat{\sigma}_2 = 1,22 = \hat{\sigma}_2$) which was established using the value

of the standard deviation obtained in the work of Eskin and collaborators⁽¹⁵⁾, with a mean of 3.09, for this variable.

Since the population variances can be obtained from a previous study or estimated from a pilot sample, the considered value of the difference in the means was 0.60 ($d=0.60$) e, in this case, assigning a value for gamma of 1.5 ($\gamma = 3/2 = 1.5$). Thus, the sample size for the control group (n_1) was 42 university professors ($n_1 \approx 42$) and for the intervention group (n_2) was 63 university professors ($n_2 \approx \gamma(n_1) = 1.5(42) \approx 63$), totaling 105 professors. After the random selection of individuals, an invitation was sent to the participants, however, in the intervention group (IG) 61 professors attended the training and in the control group (CG) 39 agreed to participate in the virtual phases, totaling 100 participants.

Study variables

The dependent variables were constituted considering the four domains that make up the Eskin's Attitudes Towards Suicide Scale (E-ATSS): acceptance of suicide, punishment after death, suicide as a sign of mental illness, and talking openly about suicide and psychological problems.

Instruments used

Data were collected using the following instruments: Questionnaire for the characterization of the study population: consisted of closed questions, build by the researchers in order to raise the profile of the population in terms of social and demographic variables, related to the labor aspects of teaching.

To determine the professor's attitude, it was used The Eskin's Attitudes Towards Suicide Scale (E-ATSS), a scale originally created in Turkey by Mehmet Eskin to assess the attitude that individuals have towards suicide. In Brazil, this scale was adapted and validated with university professors from a federal public institution and has 20 items and four domains with their respective internal consistencies (Cronbach's alpha): "Acceptance of suicide" ($\alpha=0.917$), "Punishment after death" ($\alpha=0.907$), "Suicide as a sign of mental illness" ($\alpha=0.974$) and "Talking openly about suicide and psychological problems" ($\alpha=0.851$), with an explained variance of 80.67%.

The items in each domain are summed and their respective medians are calculated to determine whether the result illustrates a negative or positive attitude⁽¹⁶⁾. The median values of these variables were: 1.75; 2.00; 2.83 and 4.60, respectively, thus, the categorization of these variables for the statistical analysis was as follows: acceptance of suicide – $Md \geq 1.75$ represents a positive attitude as it illustrates a non-acceptance of the event; a $Md < 1.75$ presents a negative

attitude. Punishment after death, a $Md \geq 2.00$ denotes a positive attitude considering that there will be no judgment of a supernatural nature against an individual with suicidal behavior, in turn a $Md < 2.00$ represents a negative attitude. In the Suicide domain as a sign of mental illness, a $Md \geq 2.83$ also illustrates a positive attitude as it means that there is no belief in suicidal behavior as a strictly psychopathological phenomenon, a $Md < 2.83$ presents suicidal behavior as an exclusive illness process, which weakens the offer of support in other predisposing factors. About the domain Talking openly about suicide and psychological problems, a $Md < 4.60$ represents a negative attitude as it means that there is a notion that the subject should not be discussed or dialogued about, however a $Md \geq 4.60$ denotes a positive attitude because it considers it pertinent and necessary to talk openly on the subject.

Study protocol

Data collection took place at three different times. The first, called pre-assessment, consisted of inviting participants via email, in which the research proposal, its objectives and the principles of the training were explained. Concurrent with the invitation, all questionnaires and the study scale were sent in the electronic format of Google Forms for those who agreed to participate in the research and were already able to answer the instruments. Still at that moment, the forms sent contained information about the possibilities of dates, being proposed four different days in the period of a week with time and place of the training.

The second moment was the implementation of training with a total workload of four hours and given by the researcher, who has theoretical and practical knowledge in the care area, performing interdisciplinary clinical care for people with suicidal behavior. A nurse with conceptual expertise on the theme also participated.

The syllabus was offered in four modules, of 1 hour each, having as a theoretical basis the world literature that deals with researching the theme and the manuals of the World Health Organization and following the methodological scheme based on the National Defense Research Institute (RAND), who developed the aforementioned scheme (Figure 1) as an operational training model that structures gatekeepers training strategies⁽¹⁷⁾.

In addition to the strategy of dialogued exposure of the themes with the participants, the resource of dramatization was used, lasting about 20 minutes. A script, written by the researcher, simulated a dialogue between a professor and a university student in a scenario similar to an academic space. An actor was hired for the character of the university student

who had suicidal thoughts and the narratives permeated several risk and protection factors, myths and taboos about the event, social and psychological aspects, academic variables as issues to be considered, with the appropriate presentations of what would be the most appropriate attitudes to be taken in each positioning. The scene ended with the character of the professor, deconstructed with negative attitudes, being welcoming and empathetic, helping the university character to seek a support service for the dilemma in question.

Immediately after the intervention, the Eskin's Attitudes Towards Suicide Scale (E-ATSS) was applied in order to reassess the professors' attitudes and allow comparative analyzes of the participants' attitudes (IG) before and after the training. At that moment, the participants answered the scale manually.

During the intervention, there was a professional psychologist on duty to assist any participant who might need an immediate reception in view of the exposure of the theme, and in the virtual phases the same professional was remotely available to all participants, regardless of the group they were part of. In the training, the flows of some services of the psychosocial care network in the municipality were also presented so that the participants could learn more about these health institutions, both to guide about referrals and to seek help for themselves, if they considered it necessary.

The third moment consisted of sending, in the week following the intervention, the Eskin's Attitudes Towards

Suicide Scale (E-ATSS) also in a virtual way to the 39 professors of the control group who answered again, providing opportunities for comparison between groups.

Data treatment and analysis

All instruments were enabled virtually, and data were collected by Google Form, which automatically generated spreadsheets in Microsoft Excel® version 365, for the data collected in the IG and CG pre-test and CG post-test. Only the manually filled scales at the post-intervention moment (IG post-test) required typing. Such typing took place twice in order to ensure the reliability in the constitution of the bank.

For data analysis in the study, the data distribution was initially verified by the Shapiro Wilk test, so parametric and non-parametric tests were used depending on the distribution presented by the data. For the descriptive analysis of the data, measures of central tendency, mean and median, and of variation, the standard deviation were used. In the inferential analysis to compare the effects of the pre- and post-test intervention in the same group (intervention or control), the paired Student's t-test was used for dependent samples with symmetrical distribution and for the data with non-symmetrical distribution, the Wilcoxon Signed Rank Test. For comparisons between different interventions, between groups (intervention and control), the paired t-test

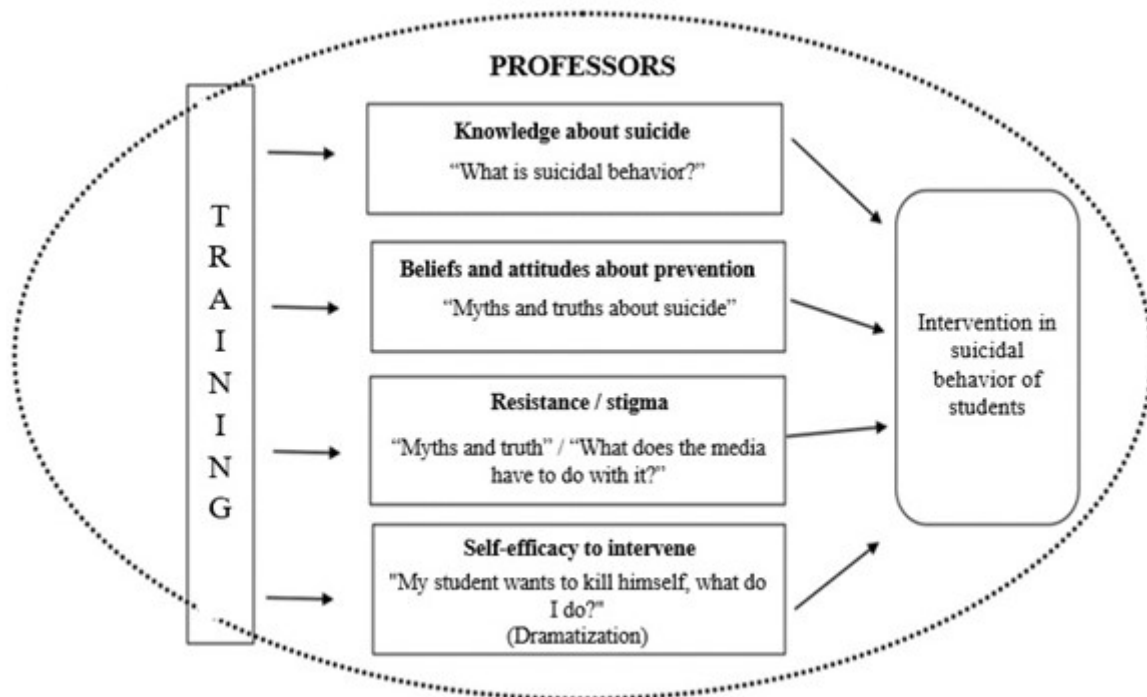


Figure 1 – Topics addressed in the implementation of the training.

Source: Adapted by the author as proposed by the National Defense Research Institute, 2015.

for independent samples and the Mann-Whitney U test were used. The adopted significance levels were less than or equal to 5% and a confidence level of 95%.

Ethical aspects

This research complied with all the principles of the National Health Council Resolution 466/2012, which approves the norms and guidelines for research involving human beings, and the matrix study was approved by the Research Ethics Committee of the *Universidade Federal de Mato Grosso* (UFMT), approved under CAAE 99749618.8.0000.8124 and opinion No.2,376,273. The study was duly registered whose identification with the Brazilian Registry of Clinical Trials (*Registro Brasileiro de Ensaios Clínicos* – ReBEC) has the

code RBR-74hgdr. The Free and Informed Consent Form was signed by the subjects who consented to participate in the research.

RESULTS

Although the IG had more participants (n=61), similarities were found in the characteristics of the groups. In both (IG and CG) a higher percentage of female, heterosexual, with religious practice participants prevailed, only the age group variable showed a difference, being prevalent in the IG those aged < 40 years and in the CG participants aged 40 to 59 years. The variables that illustrate the labor characteristics and those related to suicidal behavior are also contained in Table 1.

Table 1 – Sociodemographic, labor, and suicidal behavior-related characteristics among university professors at UFMT, Cuiabá campus. Cuiabá, Mato Grosso, Brazil, 2019.

Variables	*IG		**CG	
	n (61)	(%)	n (39)	(%)
Sociodemographic				
Gender				
Male	17	27.87	11	28.21
Female	44	72.13	28	71.79
Total	61	100.00	39	100.00
Sexual orientation				
Homosexual	6	9.84	1	2.56
Heterosexual	55	90.16	38	97.44
Total	61	100.00	39	100.00
Age group				
>60 years old	7	11.48	2	5.13
40 to 59 years old	22	36.07	22	56.41
< 40 years old	32	52.46	15	38.46
Total	61	100.00	39	100.00

Table 1 – Cont.

Variables	*IG		**CG	
	n (61)	(%)	n (39)	(%)
Religion				
Without religious practice	9	14.75	10	25.64
With religious practice	52	85.25	29	74.36
Total	61	100.00	39	100.00
Labor				
Employment status				
With stability	55	90.16	38	97.44
Without stability	6	9.84	1	2.56
Total	61	100.00	39	100.00
Highest degree				
Specialist / Graduate	1	1.64	1	2.56
Master / Doctor / Post-Doctor	60	98.36	38	97.44
Total	61	100.00	39	100.00
Working time				
> 20 years	13	21.31	13	33.33
10 to 20 years	11	18.03	3	7.69
< 10 years	37	60.66	23	58.97
Total	61	100.00	39	100.00
Have you ever had contact with the theme of suicide?				
Yes	42	68.85	35	89.74
No	19	31.15	4	10.26
Total	61	100.00	39	100.00

*Intervention Group **Control Group

Table 2 describes the mean and standard deviation of the domains of the scale used to measure the IG's attitude towards suicidal behavior. Such measures indicate how attitudes were presented before and after the application of the training. Significant changes occurred in domain 2 (suicide as a mental illness) and domain 3 (punishment after death). It should be noted that the change in attitude was verified in all items that make up the aforementioned domains.

Table 3 shows the signed rank of the domains of the scale used to measure the attitude towards suicidal behavior in

the CG. The signed rank indicate that the attitudes of the CG participants remained unchanged during the period in which the training took place.

Table 4 shows the signed-ranks of both the IG and the CG, making it possible to visualize the differences between groups and the statistically significant changes in attitude that occurred in the Suicide as a mental illness and Punishment after death domains in the IG.

Table 2 – Mean and standard deviation of the four domains of the Eskin's Attitudes Towards Suicide Scale (E-ATSS) and 95% confidence interval and p value of the difference in means between the pre and post-test of the intervention, of 61 professors. Cuiabá, Mato Grosso, Brazil, 2019.

Variable	Pre		Post		**95% CI	***p
	Mean	*SD	Mean	*SD		
Acceptance of suicide	1.94	0.89	1.92	0.88	(-0.17 ; 0.21)	0.863
Suicide as a mental illness	2.95	1.25	1.84	0.90	(0.77 ; 1.45)	<0.001
Punishment after death	2.07	1.03	1.71	0.90	(0.19 ; 0.54)	<0.001
Talking openly about suicide and psychological problems	4.52	0.47	4.44	0.56	(-0.07 ; 0.22)	0.301

*SD: Standard Deviation **95% CI: 95% Confidence Interval *** p: p-value

Table 3 – Sample size (n_1 and n_2), signed ranks, ties (n^*), value of the standardized normal distribution (z) and p-value of Wilcoxon signed-rank test of the four domains of Eskin's Attitudes Towards Suicide Scale (E -ATSS), between the pre and post-test of the control group, of 39 professors. Cuiabá, Mato Grosso, Brazil, 2019.

Variable	Pre		Post		n**	***z	****p
	* n_1	Signed Rank	* n_2	Signed Rank			
Acceptance of suicide	15	16.03	14	13.89	10	-0.50	0.618
Suicide as a mental illness	12	13.75	13	12.31	14	-0.07	0.946
Punishment after death	11	9.50	10	12.65	18	-0.38	0.701
Talking openly about suicide and psychological problems	15	10.80	10	16.30	14	-0.01	0.989

* n_1 and n_2 : Sample size by group. **n: Ties. ***z: Value of standard normal distribution. ****p: Wilcoxon signed-rank test p-value

Table 4 – Comparison between professors in the intervention and post-test control groups, in the four domains of the Eskin's Attitudes Towards Suicide Scale (E-ATSS), in 100 professors. Cuiabá, Mato Grosso, Brazil, 2019.

Variable	Post-test		**z	***p
	IG Signed Rank	CG Signed Rank		
	(*n ₁ =61)	(*n ₂ =39)		
Acceptance of suicide	50.95	49.79	-0.20	0.843
Suicide as a mental illness	44.44	59.97	-2.73	0.006
Punishment after death	41.98	63.83	-3.79	<0.001
Talking openly about suicide and psychological problems	49.50	52.06	-0.44	0.659

*n₁ and n₂: Sample size by group. **z: Value of standard normal distribution. ***p: Wilcoxon signed-rank test p-value for 2 independent samples.

DISCUSSION

This research analyzed whether professors' attitudes towards suicidal behavior could be modified by performing a training on the subject. The results found in the IG denote that of the four domains of the scale, which deal with assessing attitude towards suicidal behavior, exactly the two domains that exposed the negative attitudes of professors before training were modified, showing changes in them, making them positive. It is worth mentioning that the other two domains that remained unchanged had already presented as positive attitudes in the pre-training analyses and remained so after the execution of the same. In the CG, the results remained, although with a subtle oscillation, in the signed ranks of the domains and remained unchanged, which validates the importance of conducting interventions on the theme, since the attitude can be modifiable when properly debated and pre-elaborated concepts are persuaded.

Worldwide researches have presented similar findings corroborating the evidence that the implementation of training for gatekeepers is a successful strategy to provide a change in attitude among the participants^(9,14). A systematic review whose scope was to investigate the evidence of the effectiveness of training, with different didactics, for the development of gatekeepers and their attitude changes in the face of suicidal behavior, denoted that the resources proved to be promising to address the issue and achieve their goals⁽²⁾.

In the present study, the attitude was measured using an instrument that analyzes this construct in four domains,

and one of those that underwent modification was the domain "suicide as a mental illness". There is a negative attitude that is configured as a taboo on the theme, as it is still a stigma in the general population to judge that people with suicidal behavior have some psychopathology that may be triggering such behavior⁽¹⁸⁾. The literature shows that there is usually an association between some mental disorders and suicide, and sometimes the existence of such suffering is even configured as a risk factor for the event, however, it should not be stated that there is a direct cause-effect relationship between these elements⁽¹⁹⁾.

Individuals with suicidal behavior when labeled as mentally ill commonly face social and personal stigma, which can inhibit the search for help, especially specialized ones, in addition to provoking aversion to possible treatments, a preference for social isolation, reflecting severe emotional distress and causing a reverse effect and further strengthening the suicidal desire⁽²⁰⁾. In the training applied to the IG, it is possible to discuss this domain based on conceptual and critical material produced by competent bodies (WHO and MH), mainly using arguments about myths and truths, and by the literature that is concerned with demystifying such a conception.

The change of attitude in this domain in the IG after the training corroborates the assertion that obtaining knowledge is capable of optimizing and adapting support to the suicidal subject. This assertion is justified since, no longer seen as a purely mentally ill person, a less stereotyped behavior will make the approach more positive and the support offered more receptive^(4,19).

Suicidal behavior is commonly seen as a reprehensible act in several aspects, culturally and socially this is intensified in societies with religious influences where the idea that it is a transgression to think about and/or attempt against life that is a blessing given by a divine being⁽¹⁸⁾. Such a conjuncture may explain the presence of this pre-existing negative attitude to training in the IG regarding the domain "punishment after death".

Conceiving the suicidal behavior as a crime from a spiritual perspective leads to condemnatory approaches and judgments that may reflect on the construction of the image of the suicidal individual as ungrateful towards the divine being, which consequently generates attitudes that hinder the offer of help or when this support is offered occurs with a condemning religious bias⁽²⁰⁾. Making an individual feel guilty before a divine being for presenting suicidal behavior or imposing the thought that a sanction awaits him in the spiritual scope, if he comes to consummate the act, can introject in that person the feeling of failure in his morals and principles culminating in reflexes such as repudiation and social exclusion, which also strengthens even more the suicidal eager⁽¹⁹⁾.

In the training proposition, this domain was debated, rescuing a historical trajectory about the suicidal event and the moment when religion positions on the subject, covering the myths and truths about the theme and in the performance of a dramatization in which two actors simulated a dialogue between the characters of a professor and a university student with suicidal thoughts where the element of spiritual punishment was a component of the script. The change in attitude in the domain "punishment after death" separates the suicidal person from this criminal stigma, which consequently favors a welcoming and fruitful positioning in the support to be given to this person.

Study limitations

Experimental studies have limitations in the control of external factors to the intervention. However, the present study has a before-after design, in this way, each professor was also their own control. Other limitations refer to the non-standardized data collection procedure (physical and electronic), as well as the unicentric nature of the research, since it was focused on the regional population, thus making it impossible to generalize to the entire class of professors. However, this study contributes substantially to promoting a more welcoming and effective contact between the professor and the student with suicidal behavior as the training reached its objective with the change of attitude towards such situation.

Contributions to the area of Nursing, Health or Public Policy

Considering the importance of the present study and that the theme permeates several situations in which there are psychosocial vulnerabilities, mainly in spaces for training future health professionals involving their professors, this research presents a significant contribution to educational institutions in the possibility of applying such training in its staff in order to soften the exposed problem.

Many university campuses have health services aimed at students or staff, if not both, considering suicidal behavior a multifaceted problem, which also requires a multiprofessional approach, and which also includes nursing professionals, therefore, a team with an adequate attitude care can develop more fruitful care proposals in the face of suicidal behavior, which solidifies the contribution of the study in question.

The need to address this issue is significant, since the suicide mortality rate has increased significantly in our country in recent years, becoming a public health problem. Suicide prevention is not limited to the health care network, which must be overcome, requiring measures from different sectors of society. The articulation of multiple institutions/organizations in the prevention of suicide and in the development of health promotion initiatives in the community, may collaborate to reduce suicide rates. The present study, therefore, provides subsidies to enable the perception of the magnitude of the problem, as well as contributes by pointing out solutions, so that other intervention actions such as this can be implemented in the future in other devices of the care network.

CONCLUSION

The findings of the study demonstrate that the proposed intervention promoted significant changes in attitudes in the suicide domain as mental illness and in the punishment after death domain, which after training became more positive. Positive attitudes contribute to the early identification of suicidal behavior and enhance possibilities of adequate referral internally and externally to the university institution, minimizing the risk of an irreversible outcome such as suicide.

The training performed pointed out to the relevance of discussing suicidal behavior in this environment, corroborated with the reduction of the stigma that involves such behavior and contributed to the strengthening of a care network as the professor feels more prepared to approach and assist the university student.

■ REFERENCES

1. World Health Organization. Suicide in the world: global health estimates [Internet]. Geneva: WHO; 2019 [cited 2020 Sep 17]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/326948/WHO-MSD-MER-19.3eng.pdf?sequence=1&isAllowed=y>
2. Öztürk A, Akin S. Evaluation of knowledge level about suicide and stigmatizing attitudes in university students toward people who commit suicide. *J Psychiatric Nurs*. 2018 [cited 2020 Sep 19];9(2):96-104. Available from: [https://jag.journalagent.com/phd/pdfs/PHD-49389-RESEARCH_ARTICLE-OZTURK\[A\].pdf](https://jag.journalagent.com/phd/pdfs/PHD-49389-RESEARCH_ARTICLE-OZTURK[A].pdf)
3. Han J, Batterham PJ, Calear AL, Wu Y, Xue J, van Spijker BAJ. Development and pilot evaluation of an online psychoeducational program for suicide prevention among university students: a randomised controlled trial. *Internet Interv*. 2018;12:111-20. doi: <https://doi.org/10.1016/j.invent.2017.11.002>
4. Veloso LUP, Lima CLS, Sales JCS, Monteiro CFS, Gonçalves AMS, Silva Júnior FJG. Suicidal ideation among health field undergraduates: prevalence and associated factors. *Rev Gaúcha Enferm*. 2019;40: e20180144. doi: <https://doi.org/10.1590/1983-1447.2019.20180144>
5. Altmann TK. Attitude: a concept analysis. *Nurs forum*. 2008;43(3):144-50. doi: <https://doi.org/10.1111/j.1744-6198.2008.00106.x>
6. Yonemoto N, Kawashima Y, Endo K, Yamada M. Gatekeeper training for suicidal behaviors: A systematic review. *J Affect Disord*. 2019;246:506-14. doi: <https://doi.org/10.1016/j.jad.2018.12.052>
7. Taketani R, Tsujimoto E, Ono H. Teachers' attitudes toward youth suicide and its relationship with their own quality of life. *Health Behav Policy Rev*. 2017;4(4):399-405. doi: <https://doi.org/10.14485/HBPR.4.4.9>
8. Ahern S, Burke LA, McElroy B, Corcoran P, McMahon E, Keeley H, et al. A cost-effectiveness analysis of school-based suicide prevention programmes. *Eur Child Adolesc Psychiatry*. 2018;27(10):1295-304. doi: <https://doi.org/10.1007/s00787-018-1120-5>
9. Mo PKH, Ko TT, Xin MQ. School-based gatekeeper training programmes in enhancing gatekeepers' cognitions and behaviours for adolescent suicide prevention: a systematic review. *Child Adolesc Psychiatry Ment Health*. 2018;12(1):29. doi: <https://doi.org/10.1186/s13034-018-0233-4>
10. Tsai WP, Lin LY, Chang HC, Yu LS, Chou MC. The effects of the gatekeeper suicide-awareness program for nursing personnel. *Perspect Psychiatr Care*. 2011;47(3):117-25. doi: <https://doi.org/10.1111/j.1744-6163.2010.00278.x>
11. Vedana KGG, Zanetti ACG. Attitudes of nursing students toward to the suicidal behavior. *Rev Latino-Am Enfermagem*. 2019;27:e3116. <https://doi.org/10.1590/1518-8345.2842.3116>
12. Chauliac N, Brochard N, Payet C, EGEE (Étude Gatekeepers en EHPAD) study group; Ducloux A, Terra JL. How does gatekeeper training improve suicide prevention for elderly people in nursing homes? a controlled study in 24 centres. *Eur Psychiatry*. 2016;37:56-62. doi: <https://doi.org/10.1016/j.eurpsy.2016.05.011>
13. Coppens E, Van Audenhove C, Iddi S, Arensman E, Gottebe K, Koburger N, et al. Effectiveness of community facilitator training in improving knowledge, attitudes, and confidence in relation to depression and suicidal behavior: results of the OSPI-Europe intervention in four European countries. *J Affect Disord*. 2014;165:142-50. doi: <https://doi.org/10.1016/j.jad.2014.04.052>
14. Stone M, Holland K, Bartholow B, Crosby A, Davis S, Wilkins N. Preventing suicide: a technical package of policies, programs, and practice [Internet]. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2017 [cited 2020 Nov 15]. Available form: <https://stacks.cdc.gov/view/cdc/44275>
15. Eskin M, Palova E, Krokavcova M. Suicidal behavior and attitudes in Slovak and Turkish high school students: a cross-cultural investigation. *Arch Suicide Res*. 2014;18(1):58-73. doi: <https://doi.org/10.1080/13811118.2013.803448>
16. Eskin M. The effects of religious versus secular education on suicide ideation and suicidal attitudes in adolescents in Turkey. *Soc Psychiatry Psychiatr Epidemiol*. 2004;39(7):536-42. doi: <https://doi.org/10.1007/s00127-004-0769-x>
17. Burnette C, Ramchand R, Ayer L. Gatekeeper training for suicide prevention: a theoretical model and review of the empirical literature. *Rand Health Q*. 2015 [cited 2020 Sep 25];5(1):16. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5158249/>
18. Reis AH, Bezerra JMM, Reis PMS. O suicídio na visão do século XIX e na contemporaneidade—desafios aos paradigmas médico e psicológico. *Rev Cient UniRios*. 2020 [cited 2020 Oct 11];25:383-97. Available from: https://www.unirios.edu.br/revistarios/media/revistas/2020/25/o_suicidio_na_visao.pdf
19. Eskin M, Poyrazli S, Janghorbani M, Bakhshi S, Carta MG, Moro MF, et al. The role of religion in suicidal behavior, attitudes and psychological distress among university students: a multinational study. *Transcult Psychiatry*. 2019;56(5):853-77. doi: <https://doi.org/10.1177/1363461518823933>
20. Gearing RE, Alonzo D. Religion and suicide: new findings. *J Relig Health*. 2018;57(6):2478-99. doi: <https://doi.org/10.1007/s10943-018-0629-8>

■ **Authorship contribution:**

Conceptualization: Hugo Gedeon Barros dos Santos;
Samira Reschetti Marcon.
Data curation: Hugo Gedeon Barros dos Santos.
Formal analysis: Mariano Martínez Espinosa.
Investigation: Hugo Gedeon Barros dos Santos; Jesiele
Spindler Faria; Alice Milani Nespollo.
Methodology: Hugo Gedeon Barros dos Santos;
Mariano Martínez Espinosa.
Supervision: Samira Reschetti Marcon.
Validation: Alice Milani Nespollo; Samira Reschetti
Marcon.
Writing-original draft: Hugo Gedeon Barros dos Santos.
Writing-review & editing: Jesiele Spindler Faria; Alice
Milani Nespollo; Samira Reschetti Marcon.

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■ **Corresponding author:**

Jesiele Spindler Faria
E-mail: profjesiele@gmail.com

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