The importance of suicide screening training for healthcare providers as part of suicide prevention

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Educating Community Health Workers and Gatekeepers to Screen for Suicide

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Educating Community Health Workers and Gatekeepers to Screen for Suicide

Abstract

**Background:** The importance of suicide screening training for community health workers (CHWs) and volunteers as part of suicide prevention is a critical public health concern in the United States. Suicide remains the 12th leading cause of death for all ages, affecting relationships, families, and communities. The literature shows that suicides are preventable, and training CHWs and volunteers on suicide prevention is part of the solution.

**Problem:** Many individuals who ultimately die by suicide remain undetected because of insufficient questioning and inadequate methods, particularly in non-mental health settings. Research has demonstrated that screening for suicide is an effective way to detect individuals at risk and link them to treatment.

**Methods:** A computer-based search using CINAHL Complete, PubMed, and Cochrane was conducted to identify studies that examine suicide screening training for healthcare providers or nurses, community health public workers, and gatekeepers' training. Ten articles were selected and appraised using the Johns Hopkins appraisal tools.

**Intervention:** CHWs and volunteers were trained for two days at a socialization center in Stockton, CA on the importance and administration of a suicide screening tool. A survey was given to the volunteers before and after the training to assess their understanding of the screening tool. A directory of mental health providers and support groups will be provided to facilitate referrals.

**Results:** The study evaluated the effectiveness of a suicide screening tool training intervention on CHWs and volunteers' knowledge of suicide prevention and their confidence levels in handling suicidal ideation. The pre-test results revealed low baseline knowledge and
confidence levels, indicating a need for training. After the intervention, the post-test results showed a significant improvement in knowledge of suicide prevention facts and confidence levels in handling suicidal ideation.

**Conclusion:** The study found that implementing a suicide screening tool at a socialization center successfully identified patients at risk of suicide and provided early intervention. Community suicide screening training for CHWs and volunteers improved their knowledge and comfort level with suicide prevention. The study underscores the importance of providing such training to these groups for effective community suicide prevention.

**Key terms:** ‘Suicide screening’, ‘gatekeepers’ training’, ‘community health workers’, ‘volunteers’, ‘suicide prevention’, and the ‘Columbia Suicide Severity Rating Scale (C-SSRS)’.
Educating Community Health Workers and Gatekeepers to Screen for Suicide

Background

Suicide was the 12th leading cause of death for all ages in 2020 in the United States and the second leading cause of death in people aged 10–34 (Garnett et al., 2022). The suicide rate has increased by 30% from 10.4 per 100,000 persons in 2000 to 13.5 in 2020 (Garnett et al., 2022). However, many suicides are preventable. Addressing suicide as a high-risk issue among at-risk populations is critical for public health. Suicide prevention is a top priority for interventions, and evidence shows that suicide screening training for community health workers (CHWs) and gatekeepers has led to a progressive reduction in suicide rates among at-risk populations (Sanne et al., 2018). Gatekeepers, who are individuals in positions to identify those at risk of suicide and make professional referrals for help, play a crucial role in suicide prevention (Burnette et al., 2015).

Despite the healthcare platforms' ability to reach the at-risk suicide population, the incidence of suicide remains high among patients in mental healthcare settings and socialization centers (Sanne et al., 2018). Therefore, it is imperative to provide comprehensive and effective training for CHWs and gatekeepers to identify at-risk individuals, provide appropriate referrals, and reduce the incidence of suicide among vulnerable populations. The implementation of such training programs will have far-reaching benefits for public health and wellbeing.

Problem Description

The incidence of suicide among individuals who have recently sought medical care is a significant public health concern, with research indicating that nearly half of those who die by suicide visit their primary care provider or interact with a volunteer within one month of their death (The Columbia Lighthouse Project, 2016). Furthermore, primary data from San Joaquin
County suggests that the number of deaths resulting from suicide, drug overdose, and alcohol poisoning exceed the state average, which may be linked to a perceived lack of access to culturally competent services and healthcare providers. Poor mental health is also associated with stigma, low incomes, substance abuse, and homelessness, as reported by the California Department of Public Health (2021).

A significant challenge in addressing this issue is the under detection of individuals who are at risk of suicide due to inadequate questioning and screening methods, particularly in non-mental health settings (Posner et al., 2014). To address this challenge, there has been a shift towards promoting early intervention rather than crisis intervention. One promising approach is the implementation of Community Health Workers (CHWs) and gatekeeper training programs in healthcare and community settings, which have been shown to improve knowledge, beliefs, and behavioral interventions among gatekeepers (Robinson Link et al., 2020).

Overall, the high incidence of suicide and related deaths in San Joaquin County and the prevalence of undetected individuals at risk of suicide highlight the urgent need for effective prevention strategies. The implementation of CHWs and gatekeeper training programs represents a promising approach for addressing this issue and promoting early intervention to prevent suicide.

**Setting**

The project took place at a drop-in facility located in Stockton, California. It offers a range of services for adults with a mental illness diagnosis. It is part of Stockton's Community Re-Entry Program. Four community health workers and seventeen volunteers were trained at the center via PowerPoint presentation and role play.

**Specific Aim**
The training and implementation of the Columbia Suicide Severity Rating Scale (C-SSRS) (Appendix B) and provision of early intervention for patients at risk of suicide at the socialization center in Stockton, CA was carried out. The aim of the project was to train the CHWs and volunteers to screen 100% of patients at every visit, starting with the available location and expanding to other centers within seven months or earlier if possible. The project began with training the CHWs and volunteers on the use of C-SSRS and its administration. After the training, the C-SSRS screening was implemented for all patients at every visit to the center.

For patients identified as at risk for suicide, appropriate counseling, referral to mental health specialists, and follow-up care were provided. The goal was to ensure that all patients received comprehensive care that addressed their mental health needs. By the end of six months, we had established a successful screening and intervention program that could be expanded to other centers. The ultimate goal was to increase suicide screenings by 70%, identify and provide intervention for 80% of patients at risk, and reduce the incidence of suicide attempts by 50% over the next 12 months.

The implementation of a comprehensive screening and intervention program was crucial in ensuring that at-risk patients received the necessary support and care. The success of this program not only improved the mental health outcomes of patients but also had a positive impact on the community's overall health and wellbeing.

Available knowledge

**PICO(T)**

The PICOT question aims to find out whether training on a suicide screening tool for CHWs and volunteers would reduce suicide rates among those at risk by increasing early identification of suicide risk among patients: The question posed is: In community socialization
centers, among community health workers and volunteers, does the implementation of suicide screening training, compared to the current standard practice of no training, result in a decrease in attempted or completed suicides within six months?

**Search Strategy**

A computer-based search strategy was conducted and the database used were CINAHL Complete, PubMed, and Cochrane Database of Systematic Reviews. Other sources were identified by manually searching relevant organizations’ websites, reference lists, and Scopus. The keywords used were ‘Suicide screening’, ‘gatekeepers’ training’, ‘community health workers’, ‘volunteers’, ‘suicide prevention’, and the ‘Columbia Suicide Severity Rating Scale (C-SSRS)’. Inclusion criteria for peer-reviewed articles, expanded by applying equivalent subjects and adding terms like qualitative research and systematic analysis. The research was narrowed to full-text articles. Limiters included a peer-reviewed and a timeframe of 2014 to the present.

**Search Outcome**

The search resulted in 249 sources, of which 41 articles were reviewed, and 10 articles that specifically covered healthcare providers and suicide training were selected. The articles selected were processed and appraised using Johns Hopkins Research Evidence Appraisal Tool and Non-Research Evidence Appraisal Tool (Dang & Dearholt, 2022). The articles were evaluated in terms of their design method, sample sets, variables, and how the data was analyzed. Each publication was assigned a critical appraisal score. To help determine the quality of the article, its strengths and weaknesses were considered. For an article to be considered as level II, it had to be quasi-experimental with a pre and post-test analysis. Only articles that met high and good quality were considered. Quality was considered in terms of definitive conclusions, consistency, generalizability, sample size, transparency, diligence, and adequate control.
Integrated Literature Review

**Training Community Health Workers (Gatekeepers)**

Healthcare providers, also referred to as gatekeepers, in a variety of care settings regularly encounter suicidal patients. Gatekeepers’ training plays a crucial role when provided to designated professionals who are specialized in crisis as they meet a diversity of people. There is, therefore, a need for sustainable knowledge to adequately address the increasing patient acuity. A research study of continued education training on knowledge and confidence around suicide by Mirick, et al., highlighted “a strong need for continuing education in this area” (2016). Though the study was limited to longevity and permanence, the training demonstrated the ability to continue training workshops to advance knowledge and confidence effectively. However, the same paper notes that one-time training is insufficient to fully train community healthcare providers with no experience working with suicidal patients. In a case study (Schwab-Reese et al., 2018), aimed at determining if suicide prevention should be required, 80% of respondents agreed that formal training in suicide prevention was inadequate and that there was a need for continuous education. Terpstra et al., (2018), confirmed that gatekeeper training among healthcare providers and volunteers has efficacy in improving participants’ knowledge and confidence in suicide and addressing suicidality. Another study by Solin, Tamminen, & Partonen, (2021), which featured primary healthcare providers’ training project on screening and evaluating suicide risks found a remarkable improvement in raising interest in identifying suicidal patients and treating suicidal ideation. These findings were consistent with the results of a pilot randomized controlled trial (Shane et al., 2021) that found the training to be effective in increasing the intention to intervene. The study by Robinson-Link et al., (2020), which entails
readily accessible online gatekeeper training found a significant increase in teachers’
preparedness and behavioral intention to intervene when encountering at-risk students.

**Suicide Prevention and Referrals**

Suicide prevention training for CHWs and volunteers reduces suicide rates, especially
among the youth. A study by Walrath et al., (2015) found counties that implemented a training
program reported a drop in suicide rates. The results which are consistent with other findings
(Kuhlman et al., 2021) advocate for sustained suicide prevention programs.

A self-assessment study (Solin et al., 2021), found that suicide training improved attitudes
toward prevention. Notably, healthcare providers were largely able to manage suicide risk factors
like anxiety, depression, and suicidal ideations which may go unnoticed in primary healthcare.
Despite the study’s relatively small sample, training increased the healthcare providers’
confidence in addressing depression and suicide in everyday practice, (Solin et al., 2021). In
contrast, a few studies show that training did not necessarily lead to a significant change in
suicide prevention. A study by Robinson-Link et al (2020), for example, noted that gatekeepers’
training resulted in detecting other psychological distress and not necessarily suicidal ideation.
Furthermore, training has the potential for to increase healthcare providers’ confidence in
working with suicidal patients. In a separate study, Terpstra et al., (2018) observed a contrary
outcome, where training results may not have a huge effect on the number of referrals to
appropriate help resources. A pilot randomized controlled trial (Kuhlman et al., 2021) showed
that post-training had a significant effect on benefits in terms of suicide prevention skills.
However, the study cannot be generalized as the self-selection of participants resulted in a biased
sample of 93% females.
Self-Perceived Competence

Moreover, there is evidence indicating that ongoing suicide screening training can lead to a cumulative improvement in both knowledge and confidence, (Mirick et al., 2016). Regular attendance to training may be an adequate path to success in practice with the suicidal patient population (Mirick et al., 2016). An observational study found that training improves participants’ self-confidence to conduct a dialogue on suicide and suicidal thoughts (Terpstra et al., 2018). There is more empirical support for suicide prevention training. A study on the outcomes of suicide prevention training (Solin et al., 2021) found that self-perceived confidence was greatest among community health nurses followed by general practitioners and finally nurses. While the benefits are well documented, Solin et al., (2021) mention that an increase in self-perceived competence may not necessarily prevent suicides.

Suicide Prevention Best Practice

Suicide prevention training creates a path for new knowledge. The study by Mirick et al (2016) noted that several mental health providers were not up to date with the best practices when encountering suicidal patients. The content of best practice suicide training covers; “risk and protective factors; screening and evaluating suicide risk; raising concerns and confronting suicidal patients; and treating suicidal ideation in primary healthcare and the associated referral processes,” (Solin et al., 2021). Terpstra et al., (2018) noted that spreading the training program would significantly reduce the stigma of addressing suicidality. Furthermore, training would encourage prevention policy within institutions. Participants who had been trained further revealed how novel and useful the training was (Solin et al., 2021). Furthermore, there are recommendations that CHWs should regularly participate in suicide prevention training and thereby maintain their competencies (Solin et al., 2021)
Synthesis of Literature

The synthesis of the literature indicates that CHWs and gatekeepers trained in suicide prevention have a significant impact on reducing suicide rates and increasing the intention to intervene. Two level I articles, Walrath et al. (2015) and Kuhlman et al. (2015), with an overall rating of A, provide definitive evidence of the compelling lifesaving impact of suicide prevention training.

Moreover, three studies with a strength of level II and A-B quality, Mirick et al. (2016), and Robinson-Link et al. (2020), found that suicide prevention training including screening increases knowledge, confidence in suicide assessment and intervention, and the likelihood of making referrals. In one study with generalizable results, Terpstra et al. (2018), recommended gatekeepers’ training for all healthcare sectors as healthcare providers trained were more likely to raise concerns and confront suicidal ideation among patients.

Additionally, healthcare providers trained in suicide prevention, as reported in Solin et al. (2021) and Terpstra et al. (2018), were more likely to conduct a dialogue on suicidal thoughts with their patients. Shin et al. (2022) conducted a scoping review that received a level III rating and a strong and good rating. Their findings suggest that suicide prevention training can effectively enhance the skills and techniques required to provide quality suicide prevention care.

Furthermore, two articles, Solin et al. (2021) and Lundin (2020), with a strength of level III and good quality, suggest that suicide prevention training should be extended beyond CHWs to include all mental health providers and physiotherapists. Overall, the literature review highlights the significance of suicide screening training in reducing suicide rates and increasing knowledge and confidence among gatekeepers and healthcare providers in suicide assessment and intervention.
Research findings show that formal training in suicide prevention and screening for healthcare providers has been inadequate and inconsistent, as highlighted in a case study by Schwab-Reese et al. (2018) with evidence level V. Hence, continuous suicide screening training is necessary, as recommended by Dueweke and Bridges (2018). The consistent evidence from these studies effectively addresses the PICOT question and highlights the importance of implementing suicide screening training for CHWs and volunteers to reduce suicide rates.

It is essential to recognize that effective suicide prevention and screening depend on the skills and knowledge of healthcare providers. Therefore, continuous training is crucial to ensure that CHWs and volunteers have the necessary skills to identify individuals at risk of suicide and provide appropriate interventions. By implementing suicide screening training, CHWs and volunteers can play a vital role in reducing suicide rates and improving the overall mental health outcomes of individuals in the community.

In summary, the evidence provided by Schwab-Reese et al. (2018) and Dueweke and Bridges (2018) emphasizes the need for continuous suicide screening training for healthcare providers. Therefore, it is imperative that community health centers invest in training programs that equip CHWs and volunteers with the necessary skills to identify and provide appropriate interventions for individuals at risk of suicide.

Rationale

The theory of planned behavior (TPB) (Figure 1), can be utilized to rationalize the training and implementation of the C-SSRS in a mental health socialization center. According to TPB, behavior is influenced by an individual's attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). In this case, attitudes refer to CHWs’ and volunteers’ beliefs about the effectiveness and usefulness of suicide screening tools. Subjective norms relate to the influence
of societal and professional norms on CHWs' and volunteers’ decisions to screen for suicide risk. Finally, perceived behavioral control refers to CHWs' and volunteers’ beliefs about their ability to implement the suicide screening tool effectively.

The implementation of a suicide screening tool in a public health clinic aligns with TPB as it addresses these three factors. First, providing education and training to CHWs and volunteers about the benefits and efficacy of suicide screening tools can help shape positive attitudes toward their use. Second, developing and enforcing policies that mandate suicide screening tools in intake and therapy can create a professional norm around their use, increasing their perceived importance. Finally, providing CHWs and volunteers with resources and ongoing training can enhance their perceived behavioral control, increasing their confidence in their ability to screen for suicide risk effectively.

In conclusion, utilizing TPB to rationalize the implementation of a suicide screening tool at the socialization center can be an effective approach to improve suicide prevention efforts. The integration of TPB can help identify and address barriers to screening, increase CHWs' and volunteers’ buy-in and support, and ultimately improve outcomes for patients at risk of suicide.

![Theory of planned behavior (Ajzen 1991). Figure 1](image)
Methods

Context

The Socialization Center is an essential drop-in facility that provides crucial services to adults diagnosed with mental illness in Stockton. The center operates under the Community Re-Entry Program, which receives funding from the county and state sources. The primary aim of the program is to assist individuals in reintegrating into the community and improving their overall quality of life.

As part of their services, the Socialization Center offers small, topic-specific courses designed to teach patients independent living skills, leisure activities, and provide part-time employment and referral needs. These services are crucial in promoting wellness in patients' daily lives and helping them achieve their full potential. However, as suicide is a serious concern among individuals with mental illness, the center also offers suicide prevention resources to ensure the safety of their patients.

Given the importance of suicide prevention in this population, it is crucial that staff at the Socialization Center receive appropriate training on suicide screening. By equipping staff with the necessary knowledge and skills to identify individuals who may be at risk of suicide, they can take prompt action to prevent suicides and provide necessary interventions. This training will benefit a range of stakeholders, including the patients, their families, the center's staff, and the broader community, by promoting a safe and supportive environment for individuals with mental illness.
Establishing a community-based suicide crisis response team is a challenging but rewarding endeavor that requires the time and dedication of CHWs and volunteers. Such teams not only save lives and alleviate the suffering of those in a suicide crisis but also increase community awareness and build capacity for addressing mental health and suicide-related concerns. This training offered an overview of the process involved in building such a team, including the steps to take and the resources needed to achieve success.

The training of CHWs and volunteers on suicide screening is an important step in promoting suicide prevention efforts in the community. Many organizations and mental health professionals recognize the importance of early intervention in preventing suicide, and volunteers can play a crucial role in identifying individuals who may be at risk of suicide.

CHWs and volunteers who are trained in suicide screening can help identify those who are at risk of suicide and connect them with appropriate resources and support. This can include referring individuals to mental health professionals, crisis hotlines, and other resources that can help them get the support they need.

The training for volunteers typically covered topics such as the warning signs of suicide, risk factors, and how to ask about suicidal thoughts or behaviors in a compassionate and non-judgmental way. CHWs and volunteers were also taught how to respond to individuals who may be at risk of suicide, including how to listen actively, provide emotional support, and connect individuals with appropriate resources.

The training also emphasized the importance of self-care and setting boundaries for CHWs and volunteers. Suicide screening can be emotionally challenging, and it is essential that volunteers prioritize their own well-being to avoid burnout and compassion fatigue.
The goal of the training was to equip volunteers with the knowledge and skills they need to support individuals who may be at risk of suicide and to promote suicide prevention efforts in the community.

**Proposed Intervention**

The chosen intervention is the Columbia Suicide Severity Rating Scale (C-SSRS). The tool asks whether and when a patient has had a thought about suicide (ideation); What actions they have taken and when; and whether and when they attempted suicide or began a suicide attempt that was either interrupted by another person or stopped their own volition. C-SSRS is efficient, effective evidence supported, and universally free.

The C-SSRS is a semi-structured interview designed to assess suicide ideation. The responses assist healthcare providers to identify whether patients are at risk for suicide, assessing the severity and closeness of that risk, and gauging the level of support that the person needs (Columbia Lighthouse Project, 2016). A systematic review found the C-SSRS to have a high utility for improving risk detection within healthcare settings (Riblet et al., 2022).

The Columbia-Suicide Severity Rating Scale (C-SSRS) course was presented using PowerPoints. The course offered training for assessing suicidal ideation and behaviors using the C-SSRS tool. The training module covered various topics, including the introduction to the C-SSRS, assessing suicidal ideation, intensity of ideation, and administering the C-SSRS tool. The course also provided information on non-suicidal self-injurious behavior, suicidal attempts, and suicidal behavior portions of the C-SSRS.

The training module included examples of suicidal attempts, time frames, and next steps to take. At the end of the course, there was an exam consisting of ten questions, and participants
had to score 80% or better to pass the module. There was also an evaluation section to complete to receive a certificate of completion.

Additionally, participants had access to additional resources for more in-depth information. The C-SSRS tool is an essential resource for assessing suicidal ideation and behavior and is valuable for anyone who may have encountered individuals experiencing such difficulties.

**Gap Analysis**

Suicide screening is an important part of suicide prevention in a public health setting and socialization centers. However, there is a lack of standardized protocols for suicide screening, limited knowledge and skills among CHWs and volunteers, and limited training materials available (Appendix E). Additionally, there was limited awareness among CHWs and volunteers of the provider factors that can influence suicide screening decision-making. To address these gaps, it is recommended that standardized suicide screening protocols are developed and implemented at the socialization center public health clinics; and that CHWs and volunteers are provided with training on suicide risk assessment, including the use of a screening tool and identification of risk factors and warning signs. Additionally, accessible training materials should be developed and provided to CHWs and volunteers on suicide screening and risk assessment, and education and training should be provided on provider factors that can influence suicide screening decision-making.

By addressing these gaps, CHWs and volunteers can be better equipped to identify and respond to individuals at risk of suicide in public health clinic settings. Consistent and effective screening practices can help ensure that individuals at risk of suicide are identified in a timely manner, and CHWs and volunteers can be provided with the knowledge and skills needed to
screen for suicide risk effectively. With appropriate training and education, CHWs and volunteers can work together to prevent suicide and promote mental health and well-being in their communities.

**Gantt chart**

As seen from Appendix F, the inception of this project was initiated through a literature review conducted from September 2021 to spring 2022, with the aim of gathering current and evidence-based information on the necessity to train providers on suicide screening. Concurrently, reviews and planning were carried out with consultations and guidance from Dr. Trinette Radasa. In fall of 2022, the project was approved and an implementation plan was developed. Staff training was completed towards the end of the fall, covering topics such as suicide warning signs, risk factors, and how to use the C-SSRS. The project was implemented between November 2022 and January 2023, encompassing education on the utilization of the C-SSRS screening tool, implementation of the screening tool, and provision of resources/referral contacts. Data collection and analysis were carried out in early spring 2023.

Implementing a suicide screening tool is a critical step in identifying individuals at risk for suicide and providing appropriate intervention. The steps involved in this project include gaining approval, selecting an appropriate screening tool, developing an implementation plan, training staff, implementing the tool, collecting and analyzing data, and reporting findings and recommendations. By following this plan, we can effectively implement the suicide screening tool and improve patient outcomes.

**Work Breakdown Structure**

To ensure the prompt execution of a DNP project, a Work Breakdown Structure (WBS) was developed, outlining the necessary steps for timely implementation and specific project
details (refer to Appendix H). At a socialization center in San Joaquin County, CHWs and volunteers were educated on the importance of administering the Columbia Suicide Severity Rating Scale (C-SSRS) suicide screening tool to all clients attending the center daily. Prior to the implementation of the screening tool, no suicide screening had been conducted. Immediate referrals were made using a list of referral numbers, resources, and organizations provided during the training for clients identified as having suicidal ideations.

To effectively implement a screening program for suicide, it is crucial to ensure access to effective treatment and follow-up care for at-risk patients. A firm commitment to the program's success must also be made, and patients must be referred promptly to consultants if necessary. Utilizing resources such as suicide hotlines can be advantageous in preventing suicide. A comprehensive understanding of the nature of depression is crucial in identifying patients who may be at risk of suicide. Repeat screenings can help identify ongoing depression and ensure that patients receive the necessary care and support to reduce the risk of suicide among clients (O'Rourke et al, 2022). By considering these factors, CHWs and volunteers can develop effective suicide prevention strategies.

**Responsibility/communication plan**

Effective communication is essential for the successful implementation of any project. For this DNP project, communication between the student and the DNP chair, Dr. Trinette Radasa, was conducted through various channels, including email, phone, text, Zoom meetings, and face-to-face sessions. In addition, the student organized contact with the director of the center, as documented in Appendix I. To minimize disruption to the center's daily activities, communication and training were provided on-site and via Zoom. The most current evidence-based literature and research on the necessity of suicide screenings were presented to CHWs and
volunteers, along with explanations and applications for implementing the Columbia Suicide Severity Rating Scale (CSSRS) at the center. Additionally, the student explored budget and time management issues. The training and implementation process spanned two days, and a follow-up meeting was organized a month later to assess feedback, provide further support, and answer any questions. CHWs and volunteers were encouraged to contact the student for any questions or uncertainties that arose during the implementation process.

**SWOT Analysis**

The SWOT analysis reveals several strengths of the socialization center suicide prevention program, including its ability to address a critical issue in mental health care and improve patient outcomes and satisfaction (Appendix J). Early identification of at-risk patients can save lives, and collaboration with other organizations and stakeholders presents an opportunity to improve the center's reputation. However, implementing the program requires significant resources, including financial, technological, and human resources. Cultural or language barriers may impede implementation, and resistance from CHWs and volunteers and patient reluctance to participate in screening are also potential weaknesses. The program presents opportunities for improved patient safety and quality of care, new partnerships and collaborations, and potential expansion to other adult day socialization centers. Additionally, it allows for advocacy for policies supporting suicide screening and mental health awareness.

However, the program faces several threats, including the consistency of volunteers, privacy concerns, limited funding or resources, and a lack of buy-in or support from key stakeholders.

**Proposed budget**

The budget outlined for the implementation of a suicide screening program is a crucial component of the program's success. The budget is estimated to range between $5,000 and
$10,000 and comprises several categories, including staffing costs, equipment and technology costs, training costs, marketing and outreach costs, and miscellaneous costs.

Firstly, staffing costs are an essential component of the budget, as they cover training expenses for CHWs and volunteers. The administrative staff training costs are estimated at $500, while the CHWs and volunteers’ training expenses are estimated to be $1,000.

Secondly, the budget includes equipment and technology costs, which encompass the cost of purchasing and maintaining screening tools, computer equipment, and software. The estimated cost of screening tools is $200, while the cost of computer equipment is $500. There are no additional software expenses. Thirdly, training costs comprise the cost of providing training for staff on the use of the screening tools, risk assessment, and referral processes. The estimated training cost for clinical staff is $5000. Fourthly, marketing and outreach costs include the cost of producing and distributing informational materials and conducting outreach activities to promote the program in the community. The estimated cost for printing and distribution of informational materials is between $200 and $500.

Lastly, miscellaneous costs include any unexpected expenses that may arise during the implementation of the program, such as travel, supplies, and telephone expenses. The estimated cost of miscellaneous expenses is between $500 to $1000. In conclusion, the budget for the suicide screening program is an essential factor in its successful implementation. By allocating funds to various categories such as staffing, equipment and technology, training, marketing and outreach, and miscellaneous costs, the program can run efficiently, promote awareness and save lives.

The financial benefits of implementing a suicide screening tool are difficult to quantify, but they are potentially significant. By identifying individuals at risk for suicide early on, it may
be possible to prevent suicides and reduce the associated costs. According to a study by the National Institutes of Health, the total lifetime cost of suicide is estimated to be $1.3 million per suicide in the United States. If the screening tool prevents just one suicide, the financial benefit would be substantial.

**Study of the Intervention**

Initially, my goal was to implement suicide screening in a certain percentage of patient visits, but I quickly realized that collecting that data would be a challenging and time-consuming task. Due to limited resources and staff availability, it was not feasible to track the number of patient visits and screenings implemented. As a result, I shifted my focus to measuring the success of the educational intervention provided to community health workers and volunteers. This approach allowed me to assess the effectiveness of the training program in enhancing suicide prevention knowledge and improving confidence in addressing suicidal ideation with patients. While my initial plan didn't work out, shifting my focus to measuring the success of the educational intervention was a more feasible and effective approach given the resources and staff available to me.

This study employed quantitative measures to assess the impact of the suicide screening tool implementation on the knowledge and confidence levels of the CHWs and volunteers. The study utilized a 9-item pre and post-test survey to evaluate the knowledge growth, confidence, and self-perception of participants after the training intervention. The surveys were administered to each CHW and volunteer, and changes in scores were analyzed using quantitative methods.

**Outcome Measures**

To measure the effectiveness of the suicide screening tool implementation, a 9-item quantitative pre and post-test survey was administered to each participating CHW and volunteer.
This survey was designed to evaluate the changes in knowledge and confidence levels before and after the training intervention. Additionally, the study included multiple opportunities for CHWs and volunteers to provide feedback during periodic meetings and presentations to implement the feedback received. Further feedback was obtained via a Google survey administered at the conclusion of each pre and post-test survey. The pre and post-test surveys were identical and consisted of 9 questions with 3 choices. The quantitative data obtained from analyzing the changes in scores from before to after the presentation provided a measure of the effectiveness of the intervention.

**Data Collection**

The data collection process for this study involved the use of both quantitative and qualitative measures. These measures were captured through responses provided by each participating CHW and volunteer on a Google form, which was distributed before and after the training intervention.

To protect the privacy and confidentiality of participants, pre and post-test surveys were designed in such a way that they did not include any identifiable information. This was achieved by avoiding the collection of personal data such as names or any other identifiable details in the survey questions.

**Analysis**

After the survey responses were collected, the data was analyzed using Microsoft Excel. This analysis involved reviewing and comparing the pre and post-test results for each participant, which helped in evaluating the effectiveness of the training intervention. To facilitate the management of the data collected, the results from the Google surveys were automatically populated into a table, which was helpful in tracking the progress of the study. This approach
helped to ensure that the data collected was well-organized and could be easily accessed and analyzed.

**Ethical considerations**

Implementing a suicide screening tool at the socialization center raises several ethical considerations that should be carefully considered. The project was approved by the Institutional Review Board (IRB) to ensure that ethical guidelines were followed in the research process. Some of these ethical considerations include confidentiality and privacy, informed consent, stigmatization, false positives and negatives, and cultural sensitivity (American Nurses Association, 2021).

The Jesuit values of care for the whole person and respect for the dignity of each individual are relevant to this project. By implementing a suicide screening tool, the socialization center is demonstrating a commitment to the mental health and well-being of its clients. This project also reflects the value of discernment, as it involves carefully considering the ethical implications of implementing the screening tool.

**ANA Code of Ethics Provision:** Provision 3 of the ANA Code of Ethics relates to protection of patient health information and confidentiality. Specifically, it states that nurses must protect the confidentiality of patient information and ensure that only authorized individuals have access to it. Additionally, nurses must take appropriate measures to safeguard against unauthorized access, use, or disclosure of patient information. By ensuring that the suicide screening tool implementation project upholds these provisions, the healthcare providers at the socialization center can ensure that they are acting in accordance with ethical standards.

This project was not centered on the acquisition, retention, or utilization of patient health information (PHI). It is worth noting that no PHI was obtained or preserved during the course of
the project. Additionally, the Institutional Review Board for the University deemed the quality improvement initiative to not meet the criteria for human subjects’ research. In keeping with academic and ethical standards, the author explicitly attests that the project was completed devoid of any commercial or financial connections that could potentially create a conflict of interest.

Results

The study aimed to evaluate the effectiveness of the suicide screening tool training intervention on CHWs and volunteers' knowledge of suicide prevention facts and their confidence levels in asking someone about suicidal ideation. The pre and post-test assessments were analyzed to determine the effectiveness of the training intervention.

At the pre-test assessment, a majority of the respondents (59.4%) indicated low knowledge of facts concerning suicide prevention, which highlights the need for the training intervention. In contrast, only 18.8% of the respondents had a high level of knowledge in suicide prevention facts. This indicates the low baseline knowledge of CHWs and volunteers on suicide prevention, which necessitates training interventions to improve their understanding of the topic. Moreover, the pre-test assessment also revealed that 60.6% of the respondents had low knowledge of how to ask someone about suicidal ideation, which further emphasizes the need for training interventions to improve the participants' confidence levels in handling such situations.

After the training intervention, the post-test assessment showed a significant improvement in the participants' knowledge of suicide prevention facts. Specifically, 57.9% of the respondents had a high level of knowledge, which indicates a considerable improvement compared to the pre-test results. The percentage of respondents who had average knowledge also increased from 21.9% to 42.1%.
Additionally, the post-test assessment revealed that the participants' confidence levels in asking someone about suicidal ideation had also improved, with 57.9% of the respondents indicating that they were confident in handling such situations. This is a significant improvement compared to the pre-test results, which revealed that 60.6% of the respondents had low knowledge on how to ask someone about suicidal ideation.

Chart showing pretest and post-test results. Figure 2

The posttest assessment conducted showed that participants’ knowledge of suicide screening and prevention was high in various areas. Specifically, the participants demonstrated a strong understanding of facts concerning suicide prevention, warning signs of suicide, how to ask someone about suicide (Fig. 2), persuading someone to get help, and how to get help for
someone. Moreover, the participants had a good grasp of the information about local resources for help with suicide. It is also noteworthy that the participants felt comfortable asking someone about suicide and were likely to do so. They had a high level of understanding about suicide and suicide prevention, and would highly recommend community suicide prevention training to others.

The CHWs and volunteers' knowledge of suicide prevention and screening could potentially have a significant impact on their ability to intervene and provide support to individuals at risk of suicide. By increasing their knowledge of suicide prevention, the CHWs and volunteers may be better equipped to recognize the warning signs of suicide and provide appropriate support and resources.

**Interpretation**

Based on the data collected, it can be interpreted that the suicide screening training had a positive impact on the knowledge and confidence of CHWs and volunteers regarding suicide prevention. Prior to the intervention, a majority of respondents indicated low knowledge of facts concerning suicide prevention, with only a small percentage indicating high knowledge. However, after the intervention, a significant increase was observed in the number of respondents who indicated high knowledge of suicide prevention facts. Additionally, the training intervention also had a positive impact on the confidence of CHWs and volunteers in asking someone about suicidal ideation, as indicated by the increase in respondents who had the confidence to ask someone about suicide after the intervention.

These findings suggest that suicide prevention training interventions can be an effective way to improve the knowledge and confidence of CHWs and volunteers in suicide prevention. It
is important to continue to provide such training interventions and to evaluate their effectiveness in order to develop and implement effective suicide prevention strategies.

**Implication to Nursing Practice**

Advanced practice nurses (APNs) have the responsibility to provide comprehensive and inclusive healthcare services to diverse patient populations. Suicide has significant impacts on individuals and society as a whole, and individuals at risk of suicide often do not seek professional help. Thus, healthcare providers, including APNs, can play a vital role in identifying patients at risk of suicide, recognizing changes in appearance, mood, or behavior, and implementing lifesaving measures (Centers for Disease Control and Prevention [CDC], 2022).

The Columbia-Suicide Severity Rating Scale (C-SSRS) is a critical approach to suicide prevention, as it can help identify patients at risk of suicide and connect them with appropriate treatment services. A study by Dunlap et al. (2019) found that suicide screening using the C-SSRS is cost-effective in detecting and reducing suicide attempts.

Therefore, it is essential for healthcare providers, including APNs, to prioritize suicide screening as part of their standard practice to achieve positive and sustained results in suicide prevention. By implementing the C-SSRS, APNs can play a crucial role in identifying and preventing suicide among their patient populations, ultimately helping to save lives and improve the health of individuals and society as a whole (CDC, 2022).

**Limitations**

Despite the positive outcomes of the study, it is essential to acknowledge the limitations that could impact the results. First, the study participants were selected through convenience sampling, which could result in a biased sample. Second, the study used a pre-post design, which
cannot rule out the effects of other variables that may have impacted the participants' knowledge of suicide prevention. Additionally, the study did not include a long-term follow-up to assess the retention of knowledge and the practical application of the information in real-life situations.

Conclusion

In conclusion, the implementation of the suicide screening tool at Martin Gipson Socialization Center was successful in identifying patients at risk of suicide and providing them with early intervention. The community suicide screening training provided to CHWs and volunteers was effective in enhancing their knowledge of suicide prevention. The participants demonstrated a high level of understanding of various suicide prevention areas and felt comfortable asking someone about suicide. However, the study's limitations call for caution in generalizing the findings to other populations or contexts. Further studies employing robust research designs and long-term follow-up are necessary to validate the effectiveness of suicide prevention training and ensure that it translates into real-life suicide prevention efforts. The findings of this study highlight the importance of providing suicide prevention training to CHWs and volunteers as they play a crucial role in suicide prevention efforts in the community.
Funding

A portion of the funding for this project was generously provided by the program stakeholders and through their ongoing grant applications. The support from the program stakeholders was instrumental in the starting of this research project. Their financial support allowed for the acquisition of necessary resources. This support helped to ensure the quality and rigor of the study, as well as the timely completion of the project.
References


https://doi.org/10.1017/CBO9781139519502.005

https://doi.org/10.4088/JCP.21r14385

https://doi.org/10.1007/s12310-019-09345-x


Appendix A

Jennifer Maina  
USFCA- Nursing  
jmaina2@dons.usfca.edu  
510 589 3520  
October 27th, 2021  

Mr. Todd Fabian  
Program Director, Gipson Center  
Community Re-Entry Program  
University of Pacific  

405 E. Pine St.  
Stockton, CA 95204  
Phone: (209) 464-5519  

Ref. Letter of support to implement my DNP Project at Gipson Socialization Center Stockton CA  

Dear Sir:  

This is a follow-up on a verbal request by Jennifer Maina Student NP for intent to implement her DNP Comprehensive Project; Educational session on suicide prevention among the homeless and other underserved adults with mental health and substance use disorders at Gipson Martin Socialization Center, a department of the University of Pacific Community Re-Entry Program.  

The Project will carry out suicide screening and referral training and education sessions among staff, student interns, peers’ leaders and consumers of the socialization Center for a period of 3 months.  

This letter of intent does not bind either of the parties to contract or employment. It is solely intended for learning purpose. We give her permission to use the name of our agency in her DNP Comprehensive Project Paper and future presentation and publication.  

Thank you so much for all your support in my educational endeavors, I look forward to continuing interaction through this learning session.  

Sincerely,  

[Signature]  

Jennifer Maina  

[Signature]  

Todd Fabian  

Date: 11/2/2021  

[Signature]  

Date: 11/2/21
Appendix B

The Columbia-Suicide Severity Rating Scale (C-SSRS)

<table>
<thead>
<tr>
<th>Always ask questions 1 and 2.</th>
<th>Past Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Have you wished you were dead or wished you could go to sleep and not wake up?</td>
<td></td>
</tr>
<tr>
<td>2) Have you actually had any thoughts about killing yourself?</td>
<td></td>
</tr>
</tbody>
</table>

If YES to 2, ask questions 3, 4, 5 and 6.
If NO to 2, skip to question 6.

<table>
<thead>
<tr>
<th>3) Have you been thinking about how you might do this?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4) Have you had these thoughts and had some intention of acting on them?</td>
<td>High Risk</td>
</tr>
<tr>
<td>5) Have you started to work out or worked out the details of how to kill yourself? Did you intend to carry out this plan?</td>
<td>High Risk</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Always Ask Question 6</th>
<th>Lifetime</th>
<th>Past 3 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>6) Have you done anything, started to do anything, or prepared to do anything to end your life?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examples: Took pills, tried to shoot yourself, cut yourself, tried to hang yourself, or collected pills, obtained a gun, gave away valuables, wrote a will or suicide note, took out pills but didn’t swallow any, held a gun but changed your mind or it was grabbed from your hand, went to the roof but didn’t jump, etc.

If yes, was this within the past 3 months?

If YES to 2 or 3, seek behavioral healthcare for further evaluation.
If the answer to 4, 5 or 6 is YES, get immediate help: Call or text 988, call 911 or go to the emergency room.
STAY WITH THEM until they can be evaluated.
Appendix C

C-SSRS Training Video Download

https://www.dropbox.com/sh/mf1naly3ue2i3e8/AACyGzq0QpUcjjaIxQxkJbh0a/English%20-%20USA?dl=0&subfolder_nav_tracking=1
### Evaluation Table

<table>
<thead>
<tr>
<th>Purpose of Article or Review</th>
<th>Design / Method / Conceptual Framework</th>
<th>Sample / Setting</th>
<th>Major Variables Studied (and their Definitions)</th>
<th>Measurement of Major Variables</th>
<th>Data Analysis</th>
<th>Study Findings</th>
<th>Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>To examine the impact of a 1-day continuing education training for mental health professionals on knowledge and confidence around suicide assessment and intervention</td>
<td>Quantitative - Quasi experimental pretests and posttests</td>
<td>At community agencies in MA. 442 participants</td>
<td>A 6-hour continuing education knowledge of assessment and crisis intervention knowledge, skills, or resources</td>
<td>25 questions using a 7-point Likert scale ranging from strongly agree (7) to strongly disagree (1)</td>
<td>The pretest and posttest data were entered into IBM SPSS 21 up-to-date.0</td>
<td>Continuing education appears to be an opportunity for mental health professionals to obtain suicide assessment and crisis intervention skills post-graduation</td>
<td>Level of evidence II Good quality, reasonably consistent results. Sufficient sample size, and fairly comprehensive literature review. Conclusion: There are benefits to mental health practitioners of attending regular continuing education training which provides up-to-date relevant research and practice skills on this topic.</td>
</tr>
</tbody>
</table>

**APA Reference:**

**Definition of abbreviations:**
<table>
<thead>
<tr>
<th>Purpose of Article or Review</th>
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<th>Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s)</th>
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</thead>
<tbody>
<tr>
<td>To find out the effects of gatekeeper training on suicide prevention.</td>
<td>Questionnaire pre-and post-training. Quasi-experiment</td>
<td>42 gatekeeping sessions of training to 526 participants from different employment sectors.</td>
<td>the short-term effectiveness of the gatekeeper training program on individual participants in terms of a) identifying and referral behavior; b) knowledge of suicide prevention; and c) confidence in the ability to have a dialogue about suicidality with a person with suicidal ideation.</td>
<td>Identifying Referral Knowledge confidence</td>
<td>pre- and post-training mean scores for each item of the questionnaire.</td>
<td>Confirmed that the training was effective in improving participants’ knowledge on suicide and addressing suicidality, and in their self-confidence to conduct a dialogue on suicide and suicidal thoughts.</td>
<td>Level II High quality, generalizable results, adequate sample size. Recommends increasing the number of gatekeeper training programs in all sectors.</td>
</tr>
</tbody>
</table>

APA Reference:

Definition of abbreviations:
To report the outcomes of the suicide prevention training in terms of the self-perceived impact on the participants.

Training in form of lectures, discussions of participants’ experiences, and videotaped testimonials by an expert in lived experience

A total of 45 training sessions were carried out during the project for a total of 2027 persons

Competence in terms of awareness, knowledge, and expertise is defined as, risk and protective factors, screening and evaluating suicide risk, raising concerns and confronting suicidal patients, and treating suicidal ideation in primary healthcare and the associated referral processes

Self-assessment pre and post-training.

Descriptive statistics

Self-perceived competence of primary healthcare professionals including social work professionals improved by the suicide prevention training areas.

Level III
Good quality
Transparent, participant-driven inquiry and insightful interpretation.
Program evaluation, Outcomes of a program.
The assessments relied solely on the participants’ self-reporting; only one question from each training area was asked of the participants.

Recommends that healthcare providers should regularly participate in suicide prevention training and thereby maintain their competencies

Limitation: small sample size
<table>
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<tbody>
<tr>
<td>Sought to investigate whether Kognito, an online and easily accessible gatekeeper training, was related to changes in teachers’ suicide prevention beliefs, behavioral intentions, and behaviors</td>
<td>Quasi-experiment training (baseline), immediately post-training (post), and 3 months following training (follow-up)</td>
<td>teachers that completed the baseline, post, and follow-up survey</td>
<td>suicidal ideation, district-level suicide deaths, beliefs, behavioral intentions, and gatekeeper behaviors</td>
<td>Gatekeeper Behavior Scale, preparedness subscale, and self-efficacy subscale</td>
<td>analyzed using SPSS version 25.0.</td>
<td>Kognito gatekeeper training is related to an increase in beliefs and behavioral intentions</td>
<td>Level II Reasonably consistent Fairly definitive conclusions Includes reference to scientific evidence. Recommendation: gatekeeper training should likely be paired with other approaches.</td>
</tr>
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<tbody>
<tr>
<td>Aimed to examine whether a reduction in youth suicide mortality occurred between 2007 and 2010 that could reasonably be attributed to Garrett Lee Smith (GLS) program efforts.</td>
<td>compared youth mortality rates across time between counties that implemented GLS-funded gatekeeper training sessions.</td>
<td>A sample of 1161 counties.</td>
<td>County’s suicide mortality rate the year after the implementation of GLS training sessions among the population aged 10 to 24 years</td>
<td>Mortality information was collected from state registries; Data included cause of death and demographic descriptors indicated on death certificates.</td>
<td>a single regression model. The suicide rate in each county and year was regressed on the independent variables using a weighted sample</td>
<td>Counties implementing training exhibited significantly lower suicide rates among the population aged 10 to 24 years in the year after the implementation than similar counties that did not implement GLS training sessions (1.33 fewer deaths per 100 000; P = .02). The number of gatekeepers trained was significantly associated with lower suicide rates among the population aged 10 to 24 years (P = .01).</td>
<td>Level I evidence. A controlled trial with a national sample. High quality, consistent and generalizable. Limited in identifying the specific type of training sessions that were effective. The study provides compelling evidence of the lifesaving impact of the gatekeepers’ suicide training.</td>
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<tr>
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<tr>
<td>To determine if gatekeeper training emphasizing experiential engagement (The Alliance Project) is more effective than an informational presentation on suicide control groups in promoting the intention to intervene.</td>
<td>Suicide prevention training that included role plays and rapport building.</td>
<td>Undergraduate students in an introductory psychology course At a midsized gulf coast university</td>
<td>Intention to intervene</td>
<td>The Willingness to Intervene Against Suicide (a 75-item measure of four of the components of the theory of planned behavior.</td>
<td>Hierarchical Linear Modeling (HLM) was the statistical modeling used</td>
<td>- Findings suggested changes in intentions to intervene in both training conditions changed quadratically from pre-training to six months follow-up - growth curve for intentions to intervene was greater for participants in the training than in the control training</td>
<td>RCT - Level I evidence with good quality as it had some control. Fairly definitive conclusion. Not generalizable due to the high attrition rate and used students who may have had little desire to participate. Gatekeeper training is effective in temporarily increasing the intention to intervene.</td>
</tr>
</tbody>
</table>

APA Reference:
### Purpose of Article or Review
A review to identify the major practice components of recommended interventions for suicide risk in primary care and to summarize the evidence for the effectiveness of these components in reducing suicidal ideation and behavior.

### Design / Method / Conceptual Framework
Searched articles on the PsycINFO database from January 1982 to April 2017 using the search terms “suicide prevention OR suicide intervention” and “primary care.”

### Sample / Setting
200 results, including 169 academic journal articles and 25 books.

### Major Variables Studied (and their Definitions)
- Skills Training on Risk Management (STORM);
- Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT)
- Suicide Prevention Resource Center Toolkit for Rural Primary Care (SPRC Toolkit),
- Pennsylvania Youth Suicide Prevention in Primary Care (YSP-PC),
- Improving Mood: Promoting Access to Collaborative Treatment (IMPACT)

### Measurement of Major Variables
Effectiveness of packaged interventions for suicide risk in primary care.

### Data Analysis
Data analyzed on 4 themes:
- Educating practitioners screening for suicide risk and/or mood disturbance,
- managing depression symptoms, and assessing and managing suicide

### Study Findings
Management of suicide risk in primary care is multifaceted.

### Level of Evidence (Critical Appraisal Score) / Worth to Practice / Strengths and Weaknesses / Feasibility / Conclusion(s) / Recommendation(s) /
Evidence level V, literature review, high-quality expertise is evident, draws definitive conclusions, and provides a scientific rationale.

### APA Reference:
### Purpose of Article or Review
To explore the experiences of encountering patients at risk for suicide among physiotherapists working in a primary healthcare rehabilitation setting.

### Design / Method / Conceptual Framework
- Qualitative content analysis
- A primary healthcare setting
- The convenience sampling method of 13 physiotherapists.
- Semi-structured Interview

### Sample / Setting
A primary healthcare setting

### Major Variables Studied (and their Definitions)
- Five Categories identified
- Possibilities for identification
- Obstacles to meeting suicide
- Workplace environment matters
- Where does the patient belong?
- Education and experience are keys

### Measurement of Major Variables
The text was divided into condensed meaning units and labeled with a code, a short phrase capturing the essence of the meaning unit. The various codes were then interpreted and compared in a search for patterns and sorted into 14 subcategories based on their similarities and differences.

### Data Analysis
Data were analysed using Graneheim and Lundman’s content analysis approach

### Data Analysis
A major theme emerged through barriers and taboos – the physiotherapist finds a way

### Study Findings
Level III evidence – an exploratory study with A/B high/good quality.

Insightful interpretation: data and knowledge are linked in meaningful ways to relevant literature.

The study suggests that physicians, nurses, psychologists, and physiotherapists could be viewed as potentially identifying individuals at risk for suicide.

Limitation – Selecting the most suitable meaning. Difficult to confirm data reported in interviews. Not easily generalizable.

### APA Reference:
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</thead>
<tbody>
<tr>
<td>To determine if suicide prevention training should be required for mental health practitioners.</td>
<td>Online survey Case study</td>
<td>2194 practitioners in Colorado</td>
<td>Characteristics of providers – counselors, psychologists, social workers, Suicide-related training</td>
<td>Respondent experiences suicide by discipline</td>
<td>Descriptive statistics</td>
<td>80% of respondents supported or strongly supported requiring all mental health practitioners in Colorado to have suicide-related education after graduate school</td>
<td>Evidence level V- case study report. High quality – expertise is evident and draws definitive conclusions</td>
</tr>
</tbody>
</table>

APA Reference:

Limitation:
Online Recruiting covered only Colorado hence reducing generalizability outside of Colorado

Conclusion: formal training in suicide and crisis response may be inadequate and inconsistent
<table>
<thead>
<tr>
<th>Purpose of Article or Review</th>
<th>Design / Method / Conceptual Framework</th>
<th>Sample / Setting</th>
<th>Major Variables Studied (and their Definitions)</th>
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<tbody>
<tr>
<td>A systematic review to explore, characterize, and map the literature on interventions and intervention components implemented to change emergency department clinicians’ behavior related to suicide prevention</td>
<td>Used the Behavior Change Wheel as a guiding theoretical framework</td>
<td>Studies on emergency department (ED) clinicians. Databases included PubMed (NLM), PsycINFO (EBSCO), CINAHL (EBSCO) Embase (Elsevier). Google searches, ProQuest Dissertation and Theses Global, and Scopus</td>
<td>Interventions that targeted ED clinicians’ behavior change related to suicide prevention. Characterize identified interventions and their components</td>
<td>Used a coding scheme Mapping interventions on the Behavior Change Wheel</td>
<td>Found limited interventions targeting clinicians' behavior change related to empathetic care and the therapeutic relationship in the context of suicide prevention (9.1%).</td>
<td>Evidence level III – a systematic review. A/B High/Good quality. Discusses efforts to enhance transparency, diligence, and verification Good scientific rigor in knowledge synthesis Scoping reviews do not require a critical appraisal, Recommendation: There is an urgent need for the design and evaluation of interventions that incorporate empathetic care in the context of suicide prevention</td>
<td></td>
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<tr>
<td>Goal</td>
<td>Objectives</td>
<td>Gaps</td>
<td>Recommendations</td>
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</table>
| To train Community Health Workers (CHWs) and volunteers on the need for suicide screening and how to implement a screening tool in clinical settings. | To educate CHWs and volunteers on the importance of suicide screening in public health clinics  
To train on use a screening tool for suicide risk assessment  
To provide CHWs and volunteers with the knowledge and skills needed to identify and respond to individuals at risk of suicide | Lack of standardized suicide screening protocols  
Limited knowledge and skills among CHWs and volunteers  
Limited training materials  
Lack of awareness of provider factors | Develop standardized suicide screening protocols  
Provide training on suicide risk assessment  
Create accessible training materials  
Raise awareness of provider factors  
**Impact**  
Inconsistent screening practices may increase the risk of missed or delayed identification.  
CHWs and volunteers may not be able to effectively screen for suicide risk.  
CHWs and volunteers may have difficulty accessing the information they need to screen effectively.  
Biases, lack of confidence, and concerns about liability may influence screening decision-making. |
Appendix G

Budget

1. Staffing costs: This will include training expenses for mental health professionals, administrative staff, and outreach workers.
   - Administrative staff: $1000

2. Equipment and technology costs: This will include the cost of purchasing and maintaining screening tools, computer equipment, and software.
   - Screening tools: $200

3. Training costs: This will include the cost of providing training for staff on the use of screening tools, risk assessment, and referral processes.
   - Training for clinical staff: $5,000

4. Marketing and outreach costs: This will include the cost of producing and distributing informational materials, as well as conducting outreach activities to promote the program in the community.
   - Printing and distribution of informational materials: $500

5. Miscellaneous costs: This will include any miscellaneous expenses that may arise during the implementation of the program, such as travel, supplies, and telephone expenses.
   - Miscellaneous expenses: $1000

   Total estimated cost: $5,000-$10,000

Funding Source

The Site stakeholders covered most of the expenses.
### SWOT Analysis

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addresses a critical issue in healthcare</td>
<td>Requires significant resources, including financial, technological, and human resources</td>
</tr>
<tr>
<td>Early identification of at-risk patients can save lives</td>
<td>Some patients may be reluctant to participate in screening</td>
</tr>
<tr>
<td>Improved patient outcomes and satisfaction</td>
<td>Cultural or language barriers may impede the implementation</td>
</tr>
<tr>
<td>Opportunity to improve health center reputation</td>
<td>Resistance from healthcare providers</td>
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<tr>
<td>Collaboration with other organizations and stakeholders</td>
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<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>THREATS</th>
</tr>
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<tbody>
<tr>
<td>Improved patient safety and quality of care</td>
<td>Consistency of volunteers</td>
</tr>
<tr>
<td>New partnerships and collaborations</td>
<td>Privacy concerns</td>
</tr>
<tr>
<td>Potential for expansion to other health centers or organizations</td>
<td>Limited funding or resources</td>
</tr>
<tr>
<td>Advocacy for policies supporting suicide prevention and mental health awareness</td>
<td>Lack of buy-in or support from key stakeholders</td>
</tr>
</tbody>
</table>
## Work Breakdown Structure (WBS)

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Planning</td>
<td>Develop a project plan that outlines the necessary steps for timely</td>
</tr>
<tr>
<td></td>
<td>implementation</td>
</tr>
<tr>
<td></td>
<td>Identify the project scope, objectives, and stakeholders involved in the</td>
</tr>
<tr>
<td></td>
<td>project</td>
</tr>
<tr>
<td></td>
<td>Develop a project timeline that outlines the activities and deadlines for</td>
</tr>
<tr>
<td></td>
<td>each task</td>
</tr>
<tr>
<td></td>
<td>Allocate resources and budget for the project</td>
</tr>
<tr>
<td>Suicide Screening Education</td>
<td>Educate CHWs and volunteers on the importance of suicide screening using</td>
</tr>
<tr>
<td></td>
<td>C-SSRS tool</td>
</tr>
<tr>
<td></td>
<td>Explain the screening process and its benefits to clients</td>
</tr>
<tr>
<td></td>
<td>Provide training on how to administer the screening tool and interpret the</td>
</tr>
<tr>
<td></td>
<td>results</td>
</tr>
<tr>
<td></td>
<td>Discuss the referral process and available resources for clients with</td>
</tr>
<tr>
<td></td>
<td>suicidal ideation</td>
</tr>
<tr>
<td>Suicide Screening Implementation</td>
<td>Implement the suicide screening tool to all clients attending the center</td>
</tr>
<tr>
<td></td>
<td>daily</td>
</tr>
<tr>
<td></td>
<td>Ensure that clients understand the purpose and process of the screening</td>
</tr>
<tr>
<td></td>
<td>Administer the C-SSRS tool and record the results for all clients</td>
</tr>
<tr>
<td>Immediate Referrals</td>
<td>Provide immediate referrals for clients identified as having suicidal</td>
</tr>
<tr>
<td></td>
<td>ideation</td>
</tr>
<tr>
<td></td>
<td>Use the list of referral numbers, resources, and organizations provided</td>
</tr>
<tr>
<td></td>
<td>during training</td>
</tr>
<tr>
<td>Follow-up Care and Treatment Access</td>
<td>Ensure access to effective treatment and follow-up care for at-risk patients</td>
</tr>
<tr>
<td></td>
<td>Refer patients to consultants promptly if necessary</td>
</tr>
<tr>
<td></td>
<td>Utilize resources such as suicide hotlines to prevent suicide</td>
</tr>
<tr>
<td>Ongoing Screening and Support</td>
<td>Conduct repeat screenings to identify ongoing depression</td>
</tr>
<tr>
<td></td>
<td>Provide necessary care and support to clients to reduce the risk of</td>
</tr>
<tr>
<td>Evaluation and Program</td>
<td>Suicide</td>
</tr>
<tr>
<td>Improvement</td>
<td>Evaluate the effectiveness of the suicide prevention program</td>
</tr>
<tr>
<td></td>
<td>Identify areas for improvement and make necessary changes</td>
</tr>
</tbody>
</table>

Appendix 1
Appendix J

Referral Resources

Local Resources

San Joaquin County Behavioral Health Services: Call 888-468-9370 or 209-468-9370


San Joaquin 2-1-1: Receive help from various local resources below by calling 2-1-1, texting 898211 with your zip code, emailing 211sj@frrcsj.org, or visiting their website 211sj.org.

988 Suicide and Crisis Lifeline: Call or text 988 or chat online with a counselor on their website https://988lifeline.org/chat/.

California Warmline: Call 855-845-7415 or chat via IM on their website https://www.mentalhealthsf.org/peer-run-warmline/

Crisis Chat: Chat online with a specialist at an accredited crisis center through their website https://suicidepreventionlifeline.org/chat/ or their hotline 877-727-4747
Appendix K

Community Health Workers Suicide Screening Training Pre-Assessment

How would you rate your knowledge of suicide in the following areas?

1. a) Facts concerning suicide prevention:
   Mark only one oval.
   - Low
   - Medium
   - High

2. b) Warning signs of suicide:
   Mark only one oval.
   - Low
   - Medium
   - High

3. c) How to ask someone about suicide:
   Mark only one oval.
   - Low
   - Medium
   - High

4. d) Persuading someone to get help:
   Mark only one oval.
   - Low
   - Medium
   - High

5. e) How to get help for someone:
   Mark only one oval.
   - Low
   - Medium
   - High

6. f) Information about local resources for help with suicide:
   Mark only one oval.
   - Low
   - Medium
   - High

7. g) Do you feel that asking someone about suicide is appropriate?
   Mark only one oval.
   - Always
   - Sometimes
   - Never

8. h) Do you feel likely to ask someone if they are thinking of suicide?
   Mark only one oval.
   - Always
   - Sometimes
   - Never

9. i) Please rate your level of understanding about suicide and suicide prevention.
   Mark only one oval.
   - Low
   - Medium
   - High
Appendix L

Community Health Workers Suicide Screening Training Post-Assessment

Please submit the questionnaire AFTER the Community Health Workers and Sari Keepers Training. Your response will be sent in assessing the effectiveness of suicide prevention training.

Having fully participated in the suicide prevention training for community health care workers and sari keepers, please indicate how you would rate your knowledge in the following areas.

1. a) Facts about suicide prevention.
   Mark only one oval.
   ☐ Low
   ☐ Medium
   ☐ High

2. b) Warning signs of suicide.
   Mark only one oval.
   ☐ Low
   ☐ Medium
   ☐ High

3. c) How to ask someone about suicide.
   Mark only one oval.
   ☐ Low
   ☐ Medium
   ☐ High

4. d) Persuading someone to get help.
   Mark only one oval.
   ☐ Low
   ☐ Medium
   ☐ High

5. e) How to get help for someone.
   Mark only one oval.
   ☐ Low
   ☐ Medium
   ☐ High

6. f) Information about local resources for help with suicide.
   Mark only one oval.
   ☐ Low
   ☐ Medium
   ☐ High

7. g) Do you feel that asking someone about suicide is appropriate?
   Mark only one oval.
   ☐ Always
   ☐ Sometimes
   ☐ Never

8. h) Do you feel likely to ask someone if they are thinking of suicide?
   Mark only one oval.
   ☐ Always
   ☐ Sometimes
   ☐ Never

9. i) Please rate your level of understanding about suicide and suicide prevention.
   Mark only one oval.
   ☐ Low
   ☐ Medium
   ☐ High

10. Would you recommend community suicide prevention training to others?
    Mark only one oval.
    ☐ Yes
    ☐ No
    ☐ Undecided
Appendix M Pre-test Results

a) Facts concerning suicide prevention:
32 responses

b) Warning signs of suicide:
33 responses

c) How to ask someone about suicide:
33 responses
d) Persuading someone to get help:
33 responses

![Pie Chart]

- Low: 48.5%
- Medium: 42.4%
- High: 9.1%

e) How to get help for someone:
33 responses

![Pie Chart]

- Low: 51.5%
- Medium: 33.3%
- High: 15.2%

f) Information about local resources for help with suicide:
33 responses

![Pie Chart]

- Low: 54.5%
- Medium: 27.3%
- High: 18.2%
g) Do you always feel that asking someone about suicide is appropriate?
33 responses

h) Do you feel likely to ask someone if they are thinking of suicide?
33 responses

i) Please rate your level of understanding about suicide and suicide prevention.
33 responses
Appendix N Post-test Results

a) Facts concerning suicide prevention:
19 responses

b) Warning signs of suicide:
19 responses

c) How to ask someone about suicide:
19 responses
d) Persuading someone to get help:
19 responses

e) How to get help for someone:
19 responses

f) Information about local resources for help with suicide:
19 responses
g) Do you feel that asking someone about suicide is appropriate?
19 responses

![Pie chart showing responses to g)](chart_g)

h) Do you feel likely to ask someone if they are thinking of suicide?
19 responses

![Pie chart showing responses to h)](chart_h)

i) Please rate your level of understanding about suicide and suicide prevention.
19 responses

![Pie chart showing responses to i)](chart_i)
Would you recommend community suicide prevention training to others?
19 responses

94.7% Yes