

Original Article

Design and Creation of an International Website for Suicide Prevention Research

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Abstract

Background and Objectives: The aim of this study was to present the website content of the International Website for Suicide Prevention (IWSP), which we recently designed. The aim of creating this website was to present the current status of epidemiology related to suicide throughout the world and to make accessible some very useful electronic resources of research on the area of suicide prevention. Prior to designing this website, thorough checks were conducted to ensure the optimal platform for design. The study involved various stages, such as website design, website construction, content production, and website maintenance. The International Suicide Prevention Website is a platform dedicated to sharing valuable resources on suicide prevention. Users can access a wide range of materials, including interactive maps, books, journals, and links to organizations and websites focused on suicide prevention. Interactive maps are a valuable tool for researchers to analyze statistical data on suicide prevention or develop new hypotheses. Users could use the books and papers on the website as a library to help them choose a study source more quickly in the future. In order to maximize the website's functionality, we intend to implement two-way communication with the audience in the near future.

Keywords

Design, Website, Suicide, Prevention

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Introduction

Suicide is defined as death resulting from intentional self-harm with the intent to die, whereas a suicide attempt refers to an act in which the individual survives (1). According to the World Health Organization (WHO) report in 2025, 727,000 people die every year worldwide due to suicide (2). In addition, suicide was the third leading cause of death worldwide among persons aged 15–29 years in 2021 (2). Worldwide, there is very limited information on suicide attempts due to underreporting or lack of referral to treatment centers, and it is estimated that the number of these attempts is about 30 times higher than the number of suicides (3, 4). In analyzing suicide trends from 1990 to 2020, it was observed that despite a global decline, certain countries and regions still exhibited an increasing trend (5). Suicide is a multifaceted phenomenon that is influenced by economic, social, and cultural factors (6). A prior history of suicide attempts, active suicidal ideation, trauma, and alcohol and substance abuse have been reported as some of the most important risk factors for suicide worldwide (7, 8).

Increasing suicide-related awareness and knowledge among mental health professionals and researchers increases their skills in implementing suicide prevention strategies (9). This increase in awareness and information among researchers and professionals is necessary for improving the implementation of suicide prevention programs (10). In the suicide prevention program, the goals are to reduce the prevalence of suicidal thoughts, attempts, and deaths (11, 12). Prevention programs of suicide are designed to either reduce risk factors or to identify those at risk and provide treatment (13). Results of a randomized controlled trial showed that professional suicide prevention educational websites significantly increased relevant knowledge and could be associated with a

reduction in suicidal ideation in vulnerable individuals (14). In one study, 147 websites related to suicide prevention were reviewed; the findings indicated that most sites focused on crisis interventions via telephone and had up-to-date content, but they had limitations in terms of accessibility, language diversity, and epidemiological coverage (15).

Today, the internet is the most widely used and effective tool for obtaining information (16). Internet usage has increased tremendously and rapidly in the past decade (17). An immense quantity of information on the topic of suicide is available on the internet, but most of this information is about suicide-related news in the media (18). While social media and online tools have great potential for obtaining information, their potential as a suicide prevention tool remains underutilized (19). Access to accurate scientific information online not only eliminates geographical and time constraints but also enables researchers to swiftly access data and prevention methods (20). The availability of a specialized, credible, evidence-based resource that is easily accessible is of great importance to all those interested in suicide prevention. These individuals can include researchers, mental health professionals, and activists within relevant suicide prevention organizations. In addition, it's important for people with suicidal ideation and their families to have access to accurate and reliable information online. We recently designed a website so that all people interested in suicide prevention can use the information it provides. Therefore, this study aims to present the website content of the International Website for Suicide Prevention (IWSP), which we have recently designed.

2. Materials and Methods

Initially, in order to create the current website, we carefully chose and assessed about 10 websites dedicated to suicide prevention. Also, the relevant

searches were conducted in order to choose the optimal platform. The present study was carried out through the following steps: 1. Web design and development; 2. Content creation for the website; 3. Website maintenance and support.

Typically, every website has not only information but also a range of technological platforms that need to be taken into account throughout the design process. Content management platforms were used to build the website. The platform chosen to build this website is WordPress, which is a suitable option for this work due to its high security, ease of use, popularity, and saving time and money. Website support includes producing content and updating them. Typically, plugins and website layouts undergo frequent updates via website administration. Part of the website's assistance involves covering the monthly fee for storage space and the annual fee for domain name renewal.

In this website, the RSS (RSS: Really Simple Syndication) technology was used to collect and continuously update scientific content and articles

related to suicide prevention. Accordingly, RSS feeds from reliable scientific sources were identified and integrated into the website structure. This process enables the automatic and regular retrieval of the latest published content and articles without the need for manual searching (21).

3. Results and Discussion

The IWSP is a research website for collecting and classifying articles, content, and statistical data on suicide prevention. This website was launched in 2021 spring and has different parts (<https://iwfsp.com/>).

3.1. Suicidal Prevention Interactive Maps

This section concerns global suicide statistics (Figure 1). These maps are interactive and assign each country a special color based on the type of statistical components. A click on each country displays additional information about it. The data provided encompasses the country's earnings position, the number of suicides in 2019 categorized by gender, and the crude suicide rates per 100,000 individuals.

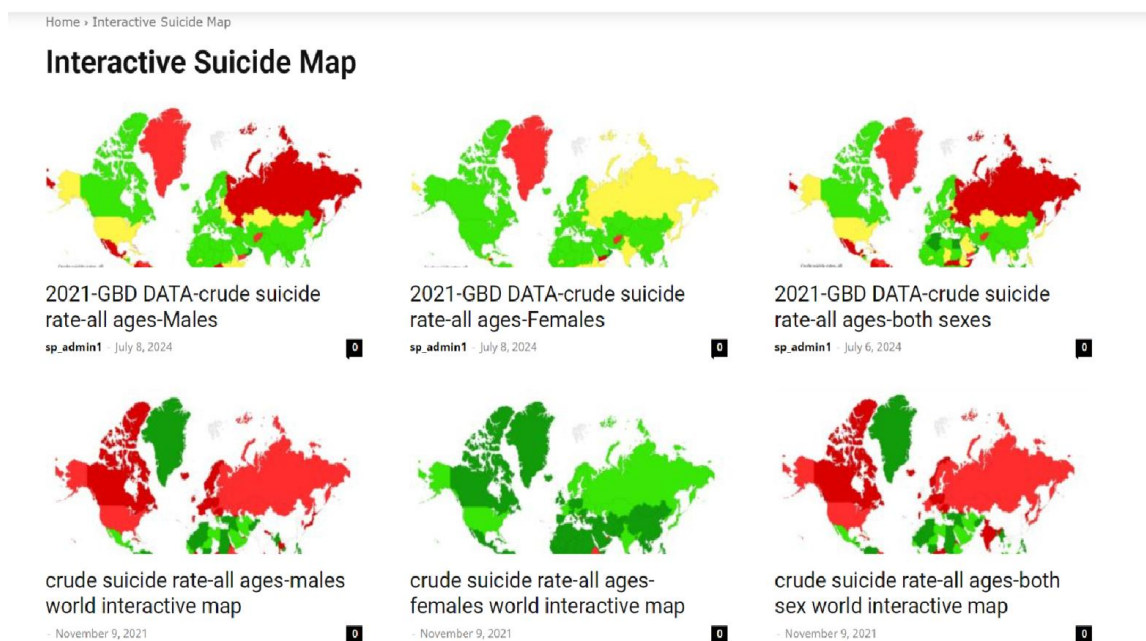


Figure 1: Global suicide statistics

Currently, the website has six maps that have been modified according to the 2019 and 2021 suicide rates. The maps are gender-based and differentiate between males and females. The WHO's 2019 and Global Burden of Disease (GBD) data were used to generate these maps.

3.2. Study Sources

This section introduces books and specialized journals about suicide (Figure 2). This page provides a variety of information, including the complete name of the journal, the issue, the impact factor, the name of the editor-in-chief, the ISSN of the journal, and the frequency of

publication. In addition to the journals section, a part of the website introduces the books published on the subject of suicide. The following is a hyperlink that redirects the user to the webpage where they may purchase the book. This webpage is hosted on the Amazon website. The source section is regularly updated and allows new journals and books to be uploaded. By the time of writing (March 2024), this article had 37 sources, including 16 journals and 30 books, uploaded to the website.

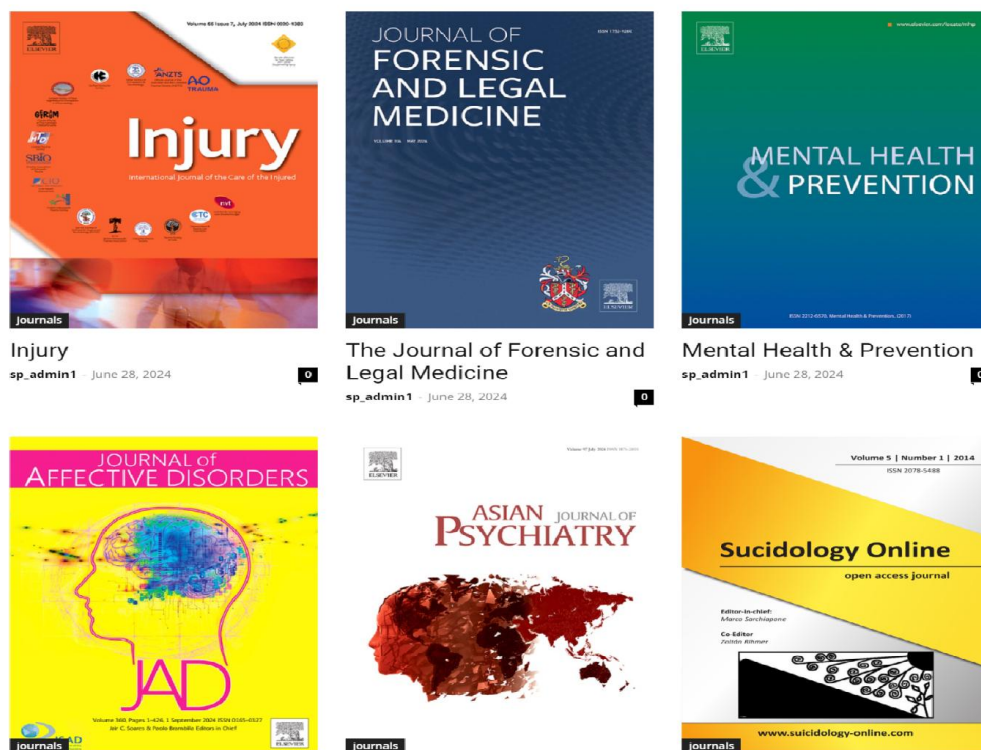


Figure2: Books and specialized journals about suicide

3.3. Introducing Organizations and Websites Related to Suicide Prevention

This section introduces the most important organizations and websites related to suicide prevention (Figure 3). This part divides information about each

organization into groups based on its year of establishment, history of activities, and areas of activities.

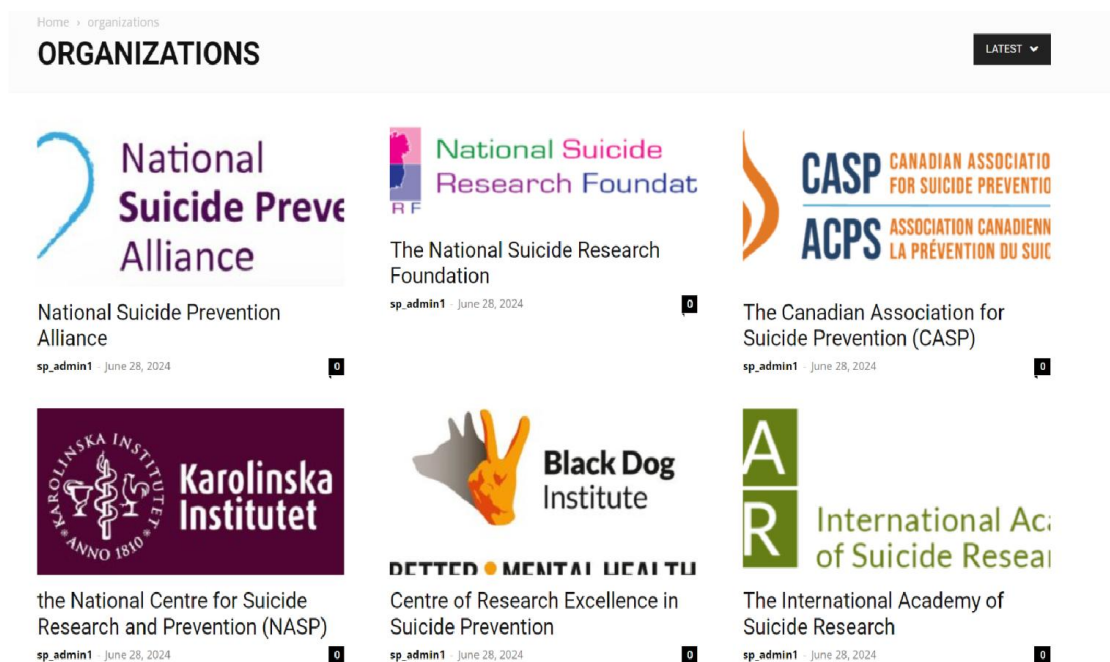


Figure 3: Organizations and websites related to suicide prevention

3.4. Introducing the Latest Articles on the Website's Home Page

Using the RSS technology enabled us to create a section on the website wherein the latest articles on suicide prevention could be collected from the PubMed website and displayed on the website. However, this was done by citing sources and giving standard links to the reference website, with the website only acting as an interface between the user and the PubMed website. This section is updated instantaneously and automatically, and displays the latest articles as a list. In the future, other websites will be added to this set.

Today, information and communications technology (ICT) has ushered in new horizons for researchers, professionals, patients, and their relatives to have easier and cost-effective access to data and prevention programs (22). Thus, websites can be very helpful for individuals interested in suicide prevention by providing access to the latest and most up-to-date epidemiological data, improved suicide prevention programs, and the most recent psychosocial interventions. social

interventions, especially for people who frequently use the internet (23). Also, comprehensive websites can offer help by enabling the uploading of texts, photos, diagrams, books, and articles for applied suicide prevention websites (24). Adolescents and the youth are one of the most important beneficiary groups in using services offered by suicide prevention websites due to such reasons as high suicide rates, failure to directly access therapeutic interventions, and also wide-ranging internet use (2, 25).

According to suicide prevention strategies defined by the WHO, media communication could be used as a public tool for awareness raising (26). Previous reviews show that populations vulnerable to suicide often access Web-based resources (27). The Internet is now a leading source of information about suicide and contains readily accessible sites that can be inappropriate in their portrayal of suicide (28). The internet can be seen as a double-edged tool (29). Several studies have explored the links between the internet and suicide behaviors. Inappropriate reporting of the internet and social media

can sensationalize suicide and increase the risk of suicide among vulnerable people, while their potential as a suicide prevention tool is equally recognized (19, 29-31). Responsible reporting of suicide on the internet, including avoiding detailed descriptions of suicidal acts, avoiding glamorization, avoiding oversimplifications, educating the public about available treatments, and providing information about where to seek help, is essential for reducing suicide (32).

The comprehensiveness of information has been one of the strong points of the website we have designed. Interactive maps can serve as reliable tools to analyze suicide prevention data or provide further hypotheses for researchers. Books and journals released on the website can turn into databases to help users make fast decisions about their prospective study sources. Up until now, the website content has received approximately 6000 visits. Our plans for the website are to make a two-way relationship with users to improve the website's functionality.

Since the present website is in its initial stages, it must utilize the content released by the World Health Organization and other associations, including the International Association for Suicide Prevention, to release more educational content for users and those who are at risk of increasing suicidal ideation and suicidal behavior. Factors affecting suicidal behavior and ideation are determined and especially elaborated. Also, ways to prevent relevant risk factors are investigated.

4. Conclusion

The suicide prevention strategy is multi-level and should include the cooperation of public health systems, the ministry of education, the ministry of labor and social welfare, and the media. The IWSP is a website for the publication of information sources in the field of

suicide prevention. This website includes interactive suicide prevention maps, books, journals, and information related to organizations active in the suicide prevention. This website, with its comprehensive coverage of topics, epidemiological data, and content related to suicide prevention, provides easy access to reliable and scientifically-based information for researchers and mental health professionals, as well as individuals interested in knowledge about suicide prevention.

Data availability statement

The datasets generated during the current study are available in the [<https://iwfsp.com/>].

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