Chapter 4

Mental Health Online: A Self-Report and E-Learning Program for Enhancing Recognition, Guidance and Referral of Suicidal Adolescents

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Introduction

Suicidal adolescents are underrepresented in mental health care (Cheung & Dewa, 2007), partly because young people commonly do not share their suicidal thoughts with their parents or other adults (Eskin, 2003; O'Donnell, Stueve, Wardlaw, & O'Donnell, 2003). Thus, their suicidality, defined as everything that is related to suicidal behaviors and thoughts (Bridge, Goldstein, & Brent, 2006), is likely to remains undetected. This chapter reports on the development of the online suicide prevention program Mental Health Online. This program includes a self-report instrument to help adolescents recognize their suicidal thoughts and e-learning modules for training mental health gatekeepers to better identify and help suicidal adolescents. Lastly, the implementation of the program is presented.

Suicide and the internet and the potential of online services

As of 2011, 94% of the Dutch households have access to internet and 86% of the internet users go online daily or almost every day (Statistics Netherlands, 2012). Thus, the internet is a powerful communication and information distribution tool in the Netherlands which can play an essential role in the promotion of mental health, and prevention of mental health disorders. This is especially the case when it comes to youth suicide which is surrounded by social stigma and taboo, and high thresholds for help seeking. Several reasons highlight the value of internet use in case of adolescent suicide prevention: First, the simplicity and accessibility of the internet makes it the first place adolescents and care providers turn for answers and information. Second, the internet can be searched in private making people feel at ease with topics they feel uncomfortable about. This is surely the case for a sensitive subject as suicidality that when handled within the discretion and anonymity of the internet, creates a low threshold accessibility that is especially important for those adolescents that are looking for information and help. Third, the information offered can reach a very large audience with little effort due to the flexibility of the internet. As a result, preventive efforts can be applied in various ways addressing different target groups at the same time. As such, schools and mental health care institutions can easily be connected to create effective prevention programs. Finally, since the information can be procured casually to such a large audience, it can even have a taboo breaking function. These advantages can reduce the high threshold for seeking professional help and the help-negation process for adolescents that struggle with suicidality.

Adolescent suicidality is a serious problem and needs vigilance and attention especially when considering that prior suicide attempt is one of the most important risk factors for suicide (Brent, Baugher, Bridge, Chen, & Chiappetta, 1999; Gould, Greenberg, Velting, & Shaffer, 2003). That is why in 2009 a group of experts was assigned the task by the Dutch

government to make an inventory of suicide prevention and intervention programs (De Groot, Kerkhof, & De Ponti, 2009). This inventory highlighted, among many other things, the need for a Dutch validated self-report questionnaire that detects suicidal adolescents from various cultural backgrounds. However, prevention of suicidality requires more than a questionnaire. If suicidal adolescents are identified using a questionnaire, professionals who work directly with adolescents, also known as gatekeepers, should also be able to guide and refer them for treatment. Thus, the inventory also emphasized the need for tools to educate gatekeepers on the subject of suicidality. Based on the outcomes of the inventory, suicide prevention among adolescents has become one of the focuses of the Dutch House of Representatives since 2009. In 2011 the departments of Clinical- and Developmental psychology at VU University in Amsterdam started a government funded program called Mental Health Online, which aims to stimulate suicide prevention among adolescents through online resources by developing an online self-report instrument to detect and referral those at high risk and online modules for gatekeepers focusing the identification, guidance and referral of suicidal adolescents.

Suicidal adolescents are more likely to disclose thoughts and feelings in self-report questionnaires than during in-person interaction (Scott et al., 2009). Using a questionnaire thus enhances the possibility to identify and refer high-risk youth who would remain undetected otherwise (Scott et al., 2009). Moreover, it enhances the likelihood that high-risk youth actually receive treatment (Gould et al., 2009). However, the process of screening to promote early identification of high risk youth often is inefficient, expensive and time consuming. The use of internet for the application of an online self-report instrument may solve these problems. First, online screening may save valuable time since the assessment can take place outside class or treatment. Second, since the self-report can be completed anywhere online, it will be easier to assess a large population including high risk groups such as absent students or no-shows. In addition, participation can be enhanced by the dispatch of automatic reminders. Third, online screening is favorable because it allows youths to respond in their own place and time as they feel most comfortable, which makes the screening process less unpleasant for them. In addition, questions that are not applicable can be passed automatically, contributing to a personalized and shorter assessment. As a result a broader population can be reached and attrition may be limited. As a final point, because online screening allows the results of the assessment to be computed and forwarded directly, care professionals can react instantly in case of high risk. Thus, online screening is faster and safer than the general approach of paper and pencil assessment.

Since professionals who work with adolescents on daily basis can play an important role in suicide prevention, the second part of the Mental Health Online program is aiming to enhance the process of recognition, guidance and referral of suicidal adolescents among

this group. While Dutch gatekeepers are willing to contribute to suicide prevention, they are unfortunately not always successful in their efforts. The first, and probably the main reason for this, is that potential gatekeepers have the false impression that by asking questions about suicidality to adolescents can actually make them become suicidal. This is why the subject of suicidality itself remains often unaddressed when engaging in a conversation with an adolescent they suspect to be suicidal. Second, gatekeepers often have little time to participate in training and courses to enhance knowledge on the subject due to their busy schedules. Often, the trainings and courses focusing on suicidality take at least one day, so that these courses are not well adapted to the gatekeeper's schedule. These two obstacles combine to contribute to the fact that gatekeepers have little knowledge when it comes to suicidality, which in turn makes them quite insecure when interacting with suicidal adolescents. Educating gatekeepers through online resources could be a new approach for this problem. Gatekeepers can go online at any time to get access to training modules, also known as e-learning modules, that offers them basic information, as well as skills and guidelines in prevention of adolescent suicidality. Furthermore, they can choose which e-learning modules they want to take depending on their own needs.

The suicide prevention program Mental Health Online has been developed in three stages. First, the proposed self-report is being validated using online assessments. Second, the effectiveness of the discussed e-learning modules is being investigated by carrying out an online randomized trial. Third, both parts of the program will be implemented using online resources. The development of the self-report started in 2009 and the development of the e-learning modules followed in 2011. The study protocol for Mental Health Online has been approved by the Medical Ethics Committee of the VU University Medical Centre Amsterdam. The next section provides a description of both aspects of the program separately, and discusses how both aspects will be integrated during implementation.

Research part I: Development of a self-report instrument

Objective: The first component of the Mental Health Online study is the development of a self-report instrument for assessing suicidality among adolescents age 12 to 20 from various cultural backgrounds. The instrument will be suitable for use in schools, youth health care, residential youth care, and on the internet. This research will result in the availability of a tool that will meet the needs of health professionals, health care teams in high schools, general practitioners, youth (health) care institutions, youth mental health care workers, public health departments and all care takers who are likely to be in contact with suicidal youths.

Design: The study consists of three phases: 1) the Item pool construction; 2) the pilot study in which the initial factor structure of the instrument will be determined within clinical and normal adolescent populations; and 3) the main study in which the predictive validity of the instrument will be determined within a normal multicultural population.

Instruments: The new self-report instrument is called the VOZZ, which stands for Questions on Suicide and Self-Harm (Vragen over Zelfdoding en Zelfbeschadiging). The questionnaire was developed to tap suicidal thoughts and behaviors as well suicide enhancing risk conditions, and include items on recent and past suicidal thoughts and behavior, general and cultural risk factors and life events. Based upon the results of the projected study the VOZZ will be shortened to become a quick and easy to administer self-report questionnaire. Questionnaires measuring suicide ideation (SIQ-JR) and depression (BDI-SF) are included during the study for validation and screening purposes.

Procedure: The VOZZ is administered online either in class or via a personalized link through e-mail and takes approximately 10 minutes to complete. A score on suicidal thoughts and depressive symptoms will automatically be computed and sent directly to the respondent by e-mail. In the case of a high score, the result will also be sent to the assigned care professional in the school, as well as a requests for a confidential talk with a care professional. The care professional then invites the concerning adolescents for a talk and assesses the need for eventual follow up and referral. The respondents are informed about this procedure before participation and again as they receive their results.

Research part II: Development of e-learning modules

Objective: The second component of the Mental Health Online program is to enhance adolescent suicide prevention by training mental health gatekeepers through e-learning modules. This will be done by focusing on the process of recognition, guidance and referral of suicidal adolescents according to the model that underlies the QPR Gatekeeper Training, which is an internationally recognized program for suicide prevention and stands for Question, Persuade and Refer (Quinnett, 2007). According to this model, which was created by Paul Quinnett in 1995, the outcome of a suicide crisis will be better when three important steps are realized. First, early detection of warning signs associated with suicidality is an essential aspect of suicide prevention by gatekeepers. Second, gatekeepers should ask questions about the presence of suicidal thoughts, feelings and plans when having a conversation with someone

who might be suicidal. By doing this a conversation will start that can persuade the suicidal person to accept a referral for help, which is the third step of this model (Quinnett, 2007).

Participants: The main target groups in this study will be members of health care teams at schools, youth health care nurses and members of mental health services. However, other gatekeepers are allowed to participate in this study as well, but the study recruitment will primarily focus on these three groups.

Design: This study consists of two phases. First, a pilot/feasibility study which includes testing different aspects of the research process. Second, the main study which will evaluate the effectiveness of the e-learning modules through a randomized controlled trial. Participants will obtain access to eight e-learning modules and will be tested three times, at baseline, immediately after attending the modules, and at follow-up three months later. They will be tested on their level of knowledge regarding adolescent suicidality, but also their perceived level of self-confidence in dealing with it. Both of these aspects will be tested using online questionnaires that have been developed for this study. Knowledge will be measured by asking questions about cases of adolescent suicidality, while self-confidence will be tested by questions and statements regarding the gatekeeper's perceived ability to interact with suicidal adolescents (Ghoncheh, Kerkhof, & Koot, 2014).

Instruments: The process of recognition, guidance and referral in the case of adolescent suicidality is addressed through eight modules (see Table 1), and each module captures different aspects of this process by educating, skill training, or offering guidelines to gatekeepers. The modules have been developed by the researchers in this study using Adobe Presenter 7 software to convert PowerPoint slides into e-learning modules. All modules are in Dutch.

The e-learning modules have several important characteristics and qualities. First, they are offered online and are accessible 24/7. Second, the content of the modules has been created in collaboration with experts on the subject of adolescent suicidality. Third, the modules are not time-consuming, each module takes only up to ten minutes. Fourth, the modules are easy to operate and have several attractive features such as graphs, cases, quizzes and voice-over. Finally, packages of the eight modules are defined for specific target groups according to the user's professional position and responsibilities. Users may identify with any target group and follow the selected modules or choose the full array. Furthermore, participants will also have access to additional information such as Dutch articles, films and interesting links on the subject of adolescent suicidality. An essential feature on the website is the online discussion board

where participants can exchange thoughts with other gatekeepers on adolescent suicidality, but they will also have the opportunity to ask a group of experts questions regarding this subject. The modules and the additional information will be accessible for participants on the website http://www.MentalHealthOnline.nl (Ghoncheh et al., 2013).

Table 1. The Eight E-learning Modules of Mental Health Online Program

Module	Aim
1. Suicidality among adolescents	Introduces the subject of adolescent suicidality
2. Risk factors	Reviews the risk factors which underlie adolescent suicidality
3. Ethnicity	Offers skill training when interacting with adolescents from ethnic minorities
4. Recognition of suicidality	Discusses how to recognize warning signs associated with suicidality
5. Conversation with the suicidal adolescent	Offers skill training on how to engage in a conversation with a suicidal adolescent
6. Conversation with the parents	Offers skill training on when to approach the parents, and how to engage in a conversation with them
7. Suicide first-aid	Discusses the required steps when an adolescent attempts suicide
8. Care and aftercare (for schools)	Offers schools guidelines regarding to the process of care and after-care when students commit or attempt suicide

Research part III: Integration and implementation

Once the Dutch self-report has been validated (see Research Part I) and the effectiveness of the e-learning modules has been investigated (see Research Part II), a ninth module will be developed in which the self-report will be discussed. In this particular module gatekeepers will find relevant information regarding the self-report instrument, such as how to score it and norms for the questionnaire, and at what score adolescents are considered at-risk for suicidality. This way, the self-report instrument can be used by the gatekeeper as an additional tool when engaging in a conversation with a possibly suicidal adolescent in order to obtain a more accurate perception of their level of depression and suicidality. By integrating the self-report instrument in the e-learning modules, gatekeepers will be provided a comprehensive online suicide prevention program that captures all the necessary steps and skills in the process of early recognition, guidance and referral of suicidal adolescents, which should also increase their level of confidence in helping suicidal adolescents.

It is expected that the program Mental Health Online will become available nationwide as of 2014 for all the gatekeepers in the Netherlands. The program will be offered free of charge, giving the gatekeepers the opportunity to enrol in the program whenever they want from any

given location, as long as they have access to the internet. Depending on their prior knowledge and skills, gatekeepers can choose which e-learning modules are relevant for them to attend, creating a customized course for each participant. Gatekeepers can attend the e-learning modules at their own pace, and interrupt and resume the module at any given time, which is a valuable asset for those with busy schedules. Moreover, the e-learning modules can be attended as often as possible which gives the gatekeepers the opportunity to refresh their knowledge and skills whenever they want to. This way, the threshold to participate in an adolescent suicide prevention course will be reduced and gatekeepers have an opportunity to help suicidal youths that otherwise might have remained unnoticed.

Another way to reach out to high-risk youths who would not be addressed otherwise is to make the self-report instrument available separately as a self-test on the internet. Since youths commonly seek information and help anonymously online, the instrument can be used by youths who are not in school or in mental health care. After completion, an automatic advice will be sent based on the outcome of the self-test. Using this tool suicidal youth may realize that they are in need for help and subsequently they may make use of the offered (online) help. The instrument may also serve as an entry for online help such as chat services, guided and unguided self-help courses, to lead the users to the most suitable online and offline help available.

Discussion

The program Mental Health Online is an online suicide prevention program designed for adolescents and their gatekeepers consisting of two components. First, eight e-learning modules will become available to gatekeepers which focus on the process of recognition, guidance and referral of suicidal adolescents. Second, a self-report questionnaire will be made available to detect suicidality among adolescents at an early stage. By offering the program online, participants can benefit from the advantages associated with internet use over in-person training. First, the program will be available 24/7 from any location as long as the participant has internet access. Second, applicants can complete the e-learning modules at their own pace and choose which modules are relevant for them, creating a customized training that meets the needs of each gatekeeper. Third, the package will be accessible for an unlimited number of participants simultaneously. Finally, this suicide prevention program will be offered free of charge since it was developed with limited effort and resources, and the maintenance of the two components will cost little. Additionally, the self-report will also be embedded in websites that promote mental health and suicide prevention, making the questionnaire more accessible

for adolescents, and increasing the chances that at-risk youth can be appropriately referred and treated at an earlier stage of suicidality.

The idea behind Mental Health Online is that the suicide prevention program discussed in this paper will be the first program in a series of prevention programs on mental health disorders that are going to be developed, investigated and offered online. When the effectiveness of these e-learning modules has been proven by research, e-learning modules can be developed for other important key issues. For instance, e-learning modules can be established to create awareness among members of the social network of people with a mental health disorder in order to build a more understanding environment. Furthermore, separate e-learning modules can also be established for parents, who can play an essential role in the recognition, guidance and referral of adolescents with mental health disorders or those who are facing problematic life circumstances. Lastly, awareness and help-seeking behavior could be improved through e-learning modules educating those with mental health disorder(s). By addressing all the important key figures, programs on prevention and intervention of mental health disorders will be more effective.

The opportunities provided by the internet also facilitate the connection between prevention and intervention programs, and research, which is essential in development of effective programs. Internet use creates a safe study environment limiting any ethical concerns regarding potential emotional effects and burden on vulnerable populations, since participants can be assessed online and monitored directly by the researchers or involved caretakers. In case of acute risk they can react immediately. People will also be more willing to participate in research programs since the required effort and commitment on their part will be limited when using the internet for data collection. Moreover, data will be saved automatically and can be analyzed directly without the trouble of collecting them in person and manually importing them. Furthermore, internet use also allows one to monitor fluctuations in mental health and well-being, and to promote mental health in the long term. Finally, the online element makes it possible to reach and train key figures who can simultaneously play an important role in prevention of mental health disorders.

Conclusion

Today, the internet is the first place people turn when facing uncertainties. It allows people to stay in their own comfort zone while gaining knowledge on topics that are surrounded with social stigma and taboos. It is therefore important that people have access online to accurate information and tools in searching for solutions for their problems. Online programs can guide and encourage people to take the required steps toward facing their problems which can only

be achieved, especially when it comes to adolescents, by reducing the threshold to find help through awareness and education. Mental Health Online aims to accomplish this by serving as a portal for online prevention and intervention programs on mental health disorders.

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