

SUICIDE PREVENTION IN THE DIGITAL AGE

Operation Reach Out: A Suicide Prevention App

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Executive Summary

A life is lost to suicide every 13 minutes in the United States.¹ More than 42,000 people died by suicide in 2014 making it the 10th leading cause of death among Americans.^{2, 3} And, while there is ample evidence that even simple measurers can stop suicides, most people who attempt suicide never seek mental health services.⁴ The reasons reported for not seeking treatment range from the stigma associated with suicide to factors such as lack of time, access and cost of services, and believing that treatment won't be effective.

Mobile technologies provide innovative tools that can help address some of the challenges associated with the prevention of suicide. Online interventions are not intended to replace face-to-face treatment, but to offer alternatives that are adapted to varying different human needs, working both as early strategies and as complementary approaches. Studies show that web-based self-help can be effective in reducing suicidal thoughts and the number of lives lost to suicide.



As suicide ideation and risk change rapidly, access to high quality mobile resources may save lives. 6 OPERATION REACH OUT is a customizable suicide prevention smart-phone app which has received numerous extraordinary reviews. Developed by a team of suicide prevention experts under the supervision of primary author Lawrence Shapiro, PhD., the app uses videos for people thinking about suicide which address common misperceptions and thought distortions, videos for people concerned about others who might be suicidal, a personalized help center, direct links to 24-7 suicide hotlines, and an activity catalog, all aimed at preventing suicide among the specific population for which it is customized. This tool helps the desperate individual "reach out" to someone in his/her social world and break the cycle of isolation and desperation.

A Closer Look at Suicide

A life is lost to suicide every 13 minutes in the United States.¹

Suicide is unrivaled in its finality, permanence and, of course, tragedy. ⁷ It is an individual and social problem from which no one is immune. It impacts every community in the United States and beyond. The contributing factors of suicide are many, and achieving a reduction in the rate of suicide has proven to be an elusive public health goal. ⁸

- Suicide is the 10th leading cause of death among Americans.
- More than 42,000 people died by suicide in 2014.
- More than 1 million people reported attempting suicide in the past year.
- More than 2 million adults reported thinking about suicide in the past year.
- Over the past decade, suicide rates have increased by 1.7 per 100,000.
- There is one suicide for every estimated 25 attempts.

2,3

Approximately 7% of the U.S. population knows someone who died of suicide during the past 12 months and surviving the loss of a loved one to suicide is itself a risk factor for suicide. The financial costs of suicide to society, although immeasurable against the loss of life, are staggering. Suicide costs society over \$51 billion a year in combined medical and work loss costs. 9

There is ample evidence that even simple measures can stop suicides, however, most people who engage in suicidal behavior never seek mental health services.

When faced with psychological crises, such as thoughts of committing suicide, specific strategies of crisis intervention are both appropriate and necessary. However, individuals going through suicidal crises often do not seek help because of the fear, shame and stigma associated with the subject. This is evident in the great disparity between the number of college students experiencing suicidal ideation and those who seek help. While 90% of recently surveyed counseling centers report increases in the number of college students with mental health problems 90% of college students who died of suicide had not received on-campus mental health services. 11, 2, 10

Although effective treatments exist, 44% of suicidal people in high income countries do not receive treatment.¹² Barriers include:

- preference for informal help;
- the sensitive nature of suicidal thoughts and actions;
- attitudes and beliefs that students hold about mental illness and mental health services;
- stigma concerning suicide, suicidal thoughts, mental health difficulties;
- low levels of health literacy;
- not perceiving a need for professional help/thinking the problem isn't severe;

- lack of time;
- access to services;
- cost of services;
- fear of disclosure;
- preference for self-reliance;
- believing in spontaneous recovery
- believing that treatment won't be effective;
- negative experiences with healthcare providers.

12, 6, 5

Suicide and College Students

More than 1,000 college students commit suicide every year. 11

Suicide is the second most frequent cause of death for college students² with recent suicide rates as high as 7.5 per 100,000.⁴ Suicide on college campuses is robbing family and friends of loved ones and the future of some of its brightest minds. Experts believe that major mental illness is a primary risk factor for suicide among young adults.¹⁰ As "Many serious mental health problems can emerge late in adolescence, presenting challenges to students transitioning to college or graduate school," college students are at particularly high-risk of suicide.

Recent studies have helped to quantify this mental health problem. Among college students surveyed in 2014, 12% were diagnosed with or treated for depression during the past year; 55% reported experiencing above average to tremendous stress²; and in 2009, between 15% and 18% of college students surveyed reported suicidal ideation, with 40%-50% reporting multiple episodes.¹¹ Furthermore, psychosis often begins when a person is in their late teens to mid-twenties with approximately 100,000 adolescents and young adults in the US experiencing first episode psychosis each year.¹³

Mobile technologies provide innovative tools that can help address some of the challenges associated with the prevention of suicide⁵ such as a preference for informal help, fear of disclosure, access, and cost of services.

Mobile Technology's Role in Suicide Prevention

Growing literature supports mobile phone app relevancy to the field of mental health. 14

Smartphone use is a growing phenomenon and has the advantage of being accessible, mobile, and easy to operate, with decreasing cost of use. ¹⁵ In 2013, 86% of undergraduates owned a smartphone and nearly half owned a tablet. ¹⁶ Likewise, the use of health related apps is a growing phenomenon. By 2018 it is estimated that 50% of the more than 3.4 billion smartphone and tablet users will have downloaded a health related app. ¹⁷ The limited use of smartphone applications specific to mental health care represents a missed opportunity, as these applications have the potential to extend and supplement traditional therapies. ¹⁸

In 2014, the World Health Organization recommended mobile devices as an option for providing support and therapy to people at risk of suicide. 19

In the United States, mental health institutes are beginning to realize that mobile applications could help to solve problems in both the individual and collective spheres, including crisis situations. This realization makes apps for suicide prevention particularly promising as studies suggest that, "people who attempt suicide act in a moment of brief but heightened vulnerability; an impulsive reaction to a crisis."

Mobile technologies provide innovative tools that can help address some of the challenges associated with the prevention of suicide.⁵

Benefits of mobile applications in suicide prevention include:

- increased ability to reach particular demographics such as adolescents and young adults who are familiar with technology;
- the provision of support that is perceived as remaining private and within the control of the young person;
- the ability to provide help to individuals in crisis when a therapist or social worker is unavailable;
- the ability to connect users directly to a hotline or center if they need immediate help and have not yet sought assistance;
- the ability to improve client coping mechanisms between office visits or calls through self-directed interventions;
- the ability to utilize population-focused intervention methods.

5, 2, 20, 21

Studies show that web-based self-help can be effective in reducing suicidal thoughts. 12

The consumer enthusiasm for apps to manage mental health has spurred the development of numerous apps for suicide prevention. Online interventions are not intended to replace face-to-face treatment, but to offer alternatives that are adapted to the varying different human needs, working both as early strategies and as complementary approaches.

OPERATION REACH OUT for Suicide Prevention



As suicide ideation and risk change rapidly, access to high quality mobile resources may save lives.⁶

OPERATION REACH OUT is a customizable suicide prevention smart-phone app.

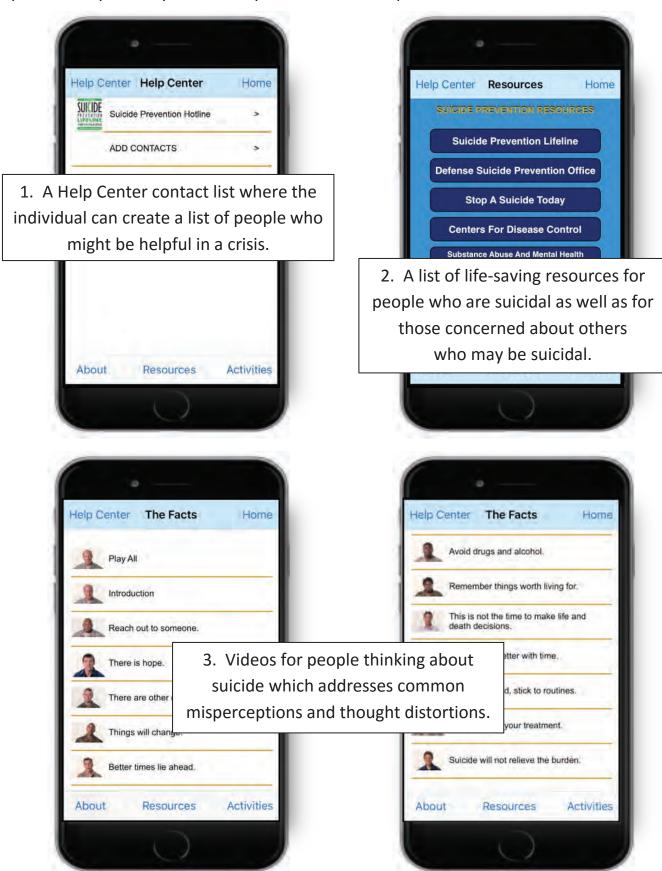
Developed by a team of suicide prevention experts, under the supervision of primary author, Lawrence Shapiro, Ph.D. (Attachment 1), the app uses videos, a personalized help center, interactive resources, and an activity catalog aimed at preventing suicide among the specific population for which it is customized.

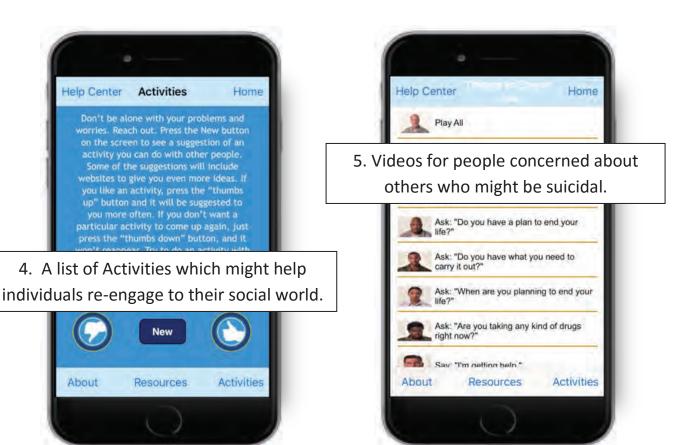
This tool helps the desperate individual "reach out" to someone in his/her social world and break the cycle of isolation and desperation.

OPERATION REACH OUT (ORO) is designed to:

- encourage people who are having suicidal thoughts to reach out for help;
- help those who are concerned about family members, spouses, or peers who may be suicidal;
- provide a personalized contact help center;
- engage individuals in activities to stay connected with others and decrease social isolation;
- Re-frame desperate thoughts to bring a wider and more accurate perspective to the suicidal person's life.

The original ORO, aimed at preventing suicide among military personnel and veterans, is sponsored by Military Community Awareness. Components Include:





In summary, ORO provides:

- a set of videos for people concerned about their own mental health;
- a set of videos for people concerned about someone else;
- an internal contact list of phone numbers to dial when a person needs to "reach out," with prompts to add a spouse or significant other, a counselor or therapist, a clergy member, a best friend and so on. The National Suicide Prevention Hotline is always at the top of the contact list;
- a resource list with active links for people who wish to obtain more information about suicide prevention and mental health;
- a set of activities to keep the suicidal person involved in with others.

With no regulation in the app marketplace, it currently falls on the user to delineate app quality.

At the least, suicide prevention apps may lack broad markers of quality such source material referencing, or lack interactive features and the resulting opportunity to engage users in suicide prevention programs. In early 2016, apps were identified which, in suggesting the removal of means of instant death, listed these means. Shockingly, there are also a small number of apps which provide encouragement to engage is risky behaviors such as drugs and deliberate self-harm to manage a crises. ⁶

ORO meets all but one quality indicator (Research: ongoing evaluations) in the "Checklist for Analyzing Applications Related to Suicide Prevention" presented in a 2013 *Journal of Technology in Human Services* article. Development of ongoing evaluations is planned for 2017. Quality indicator categories include: Research; Privacy; Usability and Accessibility; and, Appropriateness in Functionality to the Issue of Interest-Suicide Prevention (Attachment 2). The original ORO app, sponsored by Military Community Awareness, is a free tool aimed at preventing suicide among military personnel and veterans. The full app can be seen on the website at http://militaryfamily.com/downloads/apps/military-suicide-prevention-operation-reachout/. Due to the overwhelming response to this tool, ORO has made this app available for various levels of customization to your organization's audience.

Important quality feature represented in ORO:

- direct connection to crisis hotline phone numbers ie- tap-and-call functionalities;
- all user information is kept confidential;
- use of minimal text; text used is clear and concise language no jargon.
- use of population-focused intervention methods;
- transparency in how information is developed for the app and what resources were used to create the app;
- easy determination of who the information is intended to help, ie. those at risk and those worried about someone at risk versus mental health professionals;
- markers of app quality such as source material referencing and app sponsor.

23, 6, 2, 21

Of the different suicide prevention strategies contained within various apps, the strongest evidence in the literature was found for facilitating access to crisis support.⁶

Since its 2011 launch, ORO has received numerous extraordinary reviews.

ORO was ranked number two among the world's leading mental health apps by PsychCentral.com in 2013, stating, "Literally a lifesaving app, this free intervention tool helps people who are having suicidal thoughts to reassess their thinking and get help. Recommended by followers of <u>@unsuicide</u>, who report that this app has helped in suicidal crises. Developed by the military, but useful to all." PsychCentral.com is the Internet's leading resource on mental health.

ORO was also listed among the best thirteen depression apps of the year by Healthline.com in 2016.²⁵ User reviews and the number of downloads also provide indicators of user friendliness and app quality.⁵ ORO has been downloaded over 8,300 times. The most recent ratings received were 4.75 out of 5 stars.

Users shared the following:

I just wanted to say thank you again for all that you have done with Operation Reach Out and will do for our Men and Women in uniform.... I still struggle with nightmares and only sleep 2-3 hours a night but Operation Reach Out has helped me to make it on a daily basis, and for the first time in a few years, I want to make it to tomorrow. You and your organization are awesome.

Videos voiced by genuine, empathetic people. Easy to navigate app.

I recommend regardless of military background.

As stress mounts for those contemplating suicide, it is important to have aid at the ready to deescalate the situation to avoid a fatal event. This is a wonderful application, available 24/7 to remind those with severe burdens, "You are not alone. There are people who care and are ready to help."

Call to Action: OPERATION REACH OUT for Higher Education

A suicide prevention paradigm for College students needs to:

- address the stressors that most often cause distress (eg. academic stress);
- addresses the stressors that are most distressing (eg. gender identity concerns, sexual assault);
- consider students' common coping methods (eg. drug and alcohol use, spiritual practice);
- represent realistic role models and options/solutions.

2, 11

ORO enables colleges and universities to provide a community and stressor specific suicide prevention app using an intervention model which was developed by leaders in their field and is highly acknowledged in clinical reviews.



Call to Action: OPERATION REACH OUT for Corporations

Nearly 85% of all suicides occur among the nation's workforce, Americans ages 25-65. 26

The Surgeon General's National Strategy for Suicide Prevention specifically targets employers as critical stakeholders in the prevention of suicide. There is no workplace that is immune to one of its employees struggling with thoughts of suicide or behaviors associated to suicide, or, having been bereaved by suicide. 8

Men in the middle years of life (25-54) bear the largest public health burden due to suicide, in terms of potential years of life lost or potential earnings lost. The annual cost of workforce-related suicides has been calculated to be approximately \$13 billion in 2005 dollars. ²⁷

ORO enables companies to provide a workplace and stressor specific suicide prevention app for its employees.

Barriers to workplace wellness efforts and help seeking include:

- A belief that talking about suicide will induce suicide in a vulnerable person.
- Perceptions that a named mental health issue will impede advancement
- Fear of confidentiality being breached
- Fear of reprisals from management or co-workers
- Being blamed by co-workers for their mental health issues
- Competency and employment suitability may be questioned

ORO Endorsements and Reviews

HealthLine: The Best Depression Apps of 2016

http://www.healthline.com/health/depression/top-iphone-android-apps

TopCounselingSchools.org: <u>50 Highly Rated Self-Help Apps</u> http://www.topcounselingschools.org/top-self-help-apps/

Evus Technologies: <u>10 Mobile Apps For Your Mental Health</u> http://evus.com/blog/10-mobile-apps-mental-health/

Psych Central: <u>Top 10 Mental Health Apps</u>

http://psychcentral.com/blog/archives/2013/01/16/top-10-mental-health-apps/

AndroidFantasy.com: Top 11 Apps To Get Over Stress, Depression, Pain, and Anxiety

http://www.androidfantasy.com/top-best-apps-stress-depression-pain-anxiety-android-ios/

Center for Stress and Anxiety Management: Apps for Anxiety

http://www.anxietytherapysandiego.com/blog/2015/2/21/apps-for-anxiety

Nora MacQuarrie, Registered Psychologist: <u>Awesome Apps</u> http://www.noramacquarrie.com/awesome-apps.html

Needham Youth Services: Apps for Teens

http://www.needhamma.gov/documentcenter/view/10137

International Association for Suicide Prevention: Resources – Suicide Prevention Apps

https://www.iasp.info/resources/Suicide_Prevention_and_New_Technologies/Suicide_Prevention_Sma

rtphone_Apps/

The Online Mom: <u>Battling Depression? Apps Offer Guidance and Support</u>

http://www.theonlinemom.com/apps-stress-management/

Georgia Disaster Mental Health: Mobile Apps and Mobile Ready Websites

http://georgiadisaster.info/Apps/Apps.html

Attachment 1 Lawrence E. Shapiro, Ph.D.

Lawrence E. Shapiro, Ph.D. is one of the country's leading self-help writers and publishers. A prolific author of books, workbooks, card games, and board games, he recently authored a series of workbooks for children in military families. Considered an expert in emotional intelligence and resiliency, Dr. Shapiro's materials have been translated into over 25 languages.

Dr. Shapiro is a frequent guest on television and radio, and has appeared on programs including *Dr. OZ, CNN, The Today Show, National Public Radio* and many more. His work has also been profiled in publications like *The Washington Post, The Boston Globe, USA Today, Parent's Magazine*, and many more magazines and newspapers.

Attachment 2

Research. Are there any ongoing evaluations of the application beyond star ratings that would inform HSOs, users, the mental health community and others of the effectiveness of these applications (apps) in suicide prevention (e.g., Luxton et al., 2011).

Privacy. (a) Is personal information (e.g., name, location) gathered?; (b) If so, is there a password or PIN feature?; (c) Is there a disclosure of whom has access to private information entered into the application (e.g., Luxton et al., 2011).

Usability and Accessibility. (a) Is text brief and easy to understand? Is language genuine?; (b) Is it possible to enlarge text?; (c) Are there too many menus? Is menu navigation intuitive to a user?; (d) Color scheme? (Colors may affect user's mood [Hemphill, 1996]; e.g., red often signifies caution, danger, and aggression and "empirical work has begun to emerge showing that exposure to the color red has motivational, as well as symbolic, implications for human perceivers" [Meier, D'Agnostino, Elliot, Maier & Wilkowski, 2012, p. 1]; blue has been shown to elicit a calming, tranquil effect and can be associated with peacefulness [Massey, 2012]; children "colored with a yellow crayon after hearing a happy story, and with a brown crayon after hearing a sad story" [Hemphill, 1996, p. 275]); (e) Does it cost money to download (or to access help once the app is downloaded)?; and (f) Is the app reliable-does it crash during use?

Appropriateness in Functionality to the Issue of Interest-Suicide Prevention. (a) Are the presented intervention components evidence-based?; and (b) Is there an option to contact a helpline immediately? Though there are many aspects that could be included, a primary issue with an app intended for suicide prevention is its functionality in connecting a user to live help immediately such as the 24-hr suicide hotline.

FIGURE 1 Checklist for Analyzing Applications Related to Suicide Prevention.

Note. Because this article is intended to be a brief, descriptive report of suicide prevention apps in order to begin the process of developing guidelines, more in-depth analyses are not feasible. Suicide interventions must be highly tailored to the intended audience (e.g., teens, military, elderly, certain mental health diagnoses) and in-depth analyses of apps would require separate treatment of these groups and the accompanying analyses of their intended apps rather than a broad overview as is given here.

Notes

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ABOUT MILITARY COMMUNITY AWARENESS

Military Community Awareness, Inc., a family owned small business, publishes useful educational materials and resources that tackle vital issues for all stages of military life. We support all services/components throughout the DOD, domestic and abroad, providing the most up-to-date, easy-to-use resources for military personnel, families and veterans.

We can work with clients to develop custom resources to help individuals, groups, and organizations deal with many vital issues including stress, anger management, depression, conflict resolution, and many more.

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