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Understanding and Approaching The Increase in Suicide Rate With a Special Focus on the State Of Delaware

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Introduction

Suicide is the tenth leading cause of death in Delaware and the United States.[1] The annual age adjusted suicide rate is 13 per 100,000 individuals in the American population and it has steadily increased from the year 1999 to 2014 despite efforts to implement an effective prevention strategy.[2,3] In the state of Delaware, currently suicide is the second, third, and fourth leading cause of death in the age groups 25-34, 15-24, and 35-54, respectively (Figure 1). Contrary to the popular notion that suicidal threats are harmless bids for attention, suicidal thoughts and actions are a sign of extreme distress and should not be ignored.

Figure 1. Number of suicides from year 2007 through 2014 plotted as a graph show the increasing suicide rates, especially in age groups 25-34, 15-24, and 35-54.

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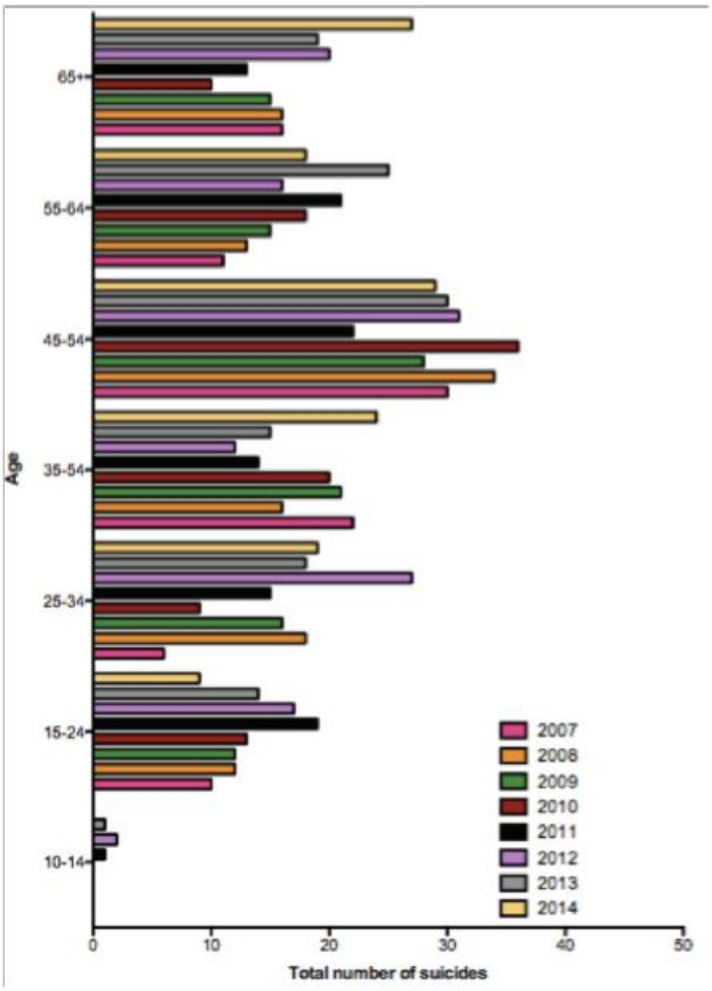

Primary care physicians are important in treatment as they perform as gatekeepers and are crucial in the process of identifying at-risk patients [Sentinel Event Alert]. With proper assessment and treatment, patients with suicidal ideations can have a positive outcome. On average, in the United States 77% of the people who commit suicide had seen a primary care physician prior to their death and about 45% were in contact with their primary care physician within a month of their death.[4] Educating primary care physicians in recognizing suicidal thoughts and depression can be an effective intervention in preventing suicide.[5] Delaware has taken its own steps to implementing legislation for suicide prevention education.[6]

Signs of suicide

Signs of suicide can present differently amongst patients but there are several common signs that physicians can identify when screening. Apparent signs include a patient clearly communicating that he or she wishes to harm self or strongly expressing the desire to no longer live. Suicidal patients may be seeking assistance and often times bring up the topic of death during a conversation. Other signs that patients may be planning to kill themselves include seeking access to firearms, access to medications or other means of self-harm. They may or may not discuss this openly and sometimes the only way to get a patient to talk about this is to ask directly. The

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patient may talk or write about death, dying, or suicide when these actions are out of the ordinary for the person.[1]

Some patients display signs of depression such as hopelessness or feeling trapped. Impulsive rage, revenge-seeking, and reckless/risky behavior are also important cues. There may increase alcohol or drug use, a sign that things are spiraling out of control. Other noticeable symptoms include withdrawing from friends and family, feeling anxious, agitated or inability to sleep, and experiencing dramatic mood changes. The list below reviews the signs of suicide which can be easily be remembered using the acronym FACTS (feelings, action, changes, threats, and suicides).

Warning Signs of Suicide in Adults and Adolescents (F.A.C.T.S.)

Lifelines: An Evidence Based Suicide Prevention Program is authored by Maureen Underwood, LCSW and John Kalafat, PhD and is published by Hazelden. FACTS is being used with the permission of Ms. Underwood.

Feelings:

- Hopelessness: feeling like things are bad and won't get any better
- Fear of losing control, going crazy, harming himself/herself or others
- Helplessness: a belief that there's nothing that can be done to make life better
- Worthlessness: feeling like an awful person and people would be better off if he/she were dead
- Hating himself/ herself, feeling guilty or ashamed
- Being extremely sad and lonely, feeling anxious, worried or angry all the time

Action:

- Drug or alcohol abuse
- Talking or writing about death or destruction
- Aggression: getting into fights or having argument with people
- Recklessness: doing risky or dangerous things

Change:

- Personality: behaving like a different person, becoming withdrawn, tired all the time, not caring about anything, or becoming more talkative, outgoing
- Behavior: can't concentrate on school or regular tasks
- Sleeping and eating patterns: sleeping all the time or not being able to sleep at all, or waking up in the middle of the night or early in the morning and not being able to get back to sleep, losing appetite and/or overeating and gaining weight
- Losing interest in friends, hobbies and appearance, or in activities or sports previously enjoyed
- Sudden improvement after a period of being down or withdrawn

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Threats:

- Getting into trouble at school, at home or with the law
- Recent loss through death, divorce, separation; the break-up of a relationship; losing an opportunity or a dream; losing self-esteem
- Changes in life that feel overwhelming
- Being exposed to suicide or the death of a peer under any circumstances

Suicide

As mentioned earlier, suicide is the third leading cause of death in the age group of 15-24. It is important to know that teenagers may show signs of depression differently from adults. In addition to the signs and symptoms mentioned above, depressed adolescents may act out, get in trouble at school, and engage in negative thinking. It is normal that adolescents may experience stressors such as struggling to fit in at school, keep up with their classes, and trying to meet their family's expectations.

However, these normal changes are internalized differently by each individual and can contribute to adolescent depression. Additionally, with increase in bullying at schools and on social media can be detrimental to an adolescent's wellbeing.[7] Adolescents should also be screened for exposure to suicide as suicidal risk increases when a peer commits suicide. This phenomenon of cluster suicide behavior is specific to the adolescent population, and it is due to group affiliations and identity shaping.[6] Certain groups are at a higher risk of suicidal ideations such as those that identify as lesbian, gay, bisexual, transgender or questioning youth.[8] It was found that these populations are two to seven times more likely to attempt suicide when compared to heterosexual populations.[8] Additionally, recent research found more than 40 percent of transgender young adults report suicide attempts.[8]

Many depressed adolescents are commonly not diagnosed properly because family members brush them off as being difficult. Relationship problems such as conflict with parents or breakup with a romantic partner are the most common cause of suicidality in childhood and early adolescent suicidal deaths.[9] Suicide by hanging, suffocation and strangulation are the most common means of suicide in children and early adolescents.[9] Those who die by suicide often have a history of prior attempts.[6]

Screening for Suicide

In February 2016, the Joint commission noted that clinicians in emergency, primary and behavioral health care settings have a crucial role in identifying individuals with suicidal ideation.[10] The Joint commission also recommended the use of screening tools to assess suicide risk for both adolescents and adults. As psychiatrists and psychologists treat most patients already diagnosed with mental illness, medical care physicians such as primary care providers are in a unique position to identify suicidal ideation in patients without previously diagnosed mental health concerns.

One of the simplest ways to screen for depression or suicidal thoughts is to have patients fill out a screening form while they are in the waiting area. These forms are free and readily available online at several locations, and one such online resource is the APA website: https://www.psychiatry.org/psychiatrists/practice/dsm/dsm-5/online-assessment-measures. The

tool's level one cross-cutting symptom measures should be used first as they not only assess suicidal and depressive symptoms, but can highlight other mental illnesses that are not blatantly displayed in a 20 minutes exam with a patient. Level one is a brief inquiry of 13 different domains for adult patients and 12 domains for child and adolescent patients. If a patient answers positively towards a specific domain, level two cross cutting symptom measures are utilized to examine a particular domain in detail. For instance, if the patient answers positively towards the depression questions on a level one survey, the patient will be asked to fill out a level two survey examining their depression in depth. Other screening tools include the Columbia-Suicide Severity Rating Scale (C-SSRS), Patient Health Questionnaire (PHQ-9, a more brief version exists called PHQ-9), and the Suicide Assessment Five-Step Evaluation and Triage (SAFE-T)1. These screening surveys can also be used to evaluate treatment progress. As often times people come into the doctor's office to discuss a medical issue and there is not enough time to discuss their psychosocial issues, using screening tools can help identify those at risk for suicide.[11]

Once individuals with high suicide risk are identified, it is important inquiries about suicide are interwoven into a contextual discourse about his or her psychosocial functioning and well-being. If the subject of suicide is offered without context, the patient is less likely to disclose their true intentions. Still, vocabulary used by the physician should be straightforward and clear. If the patient denies suicidal ideations or depression, providing supportive statements will help the patient understand that the concern for their safety is genuine. Open-ended questions should always be used as closed-ended assessment such as "you aren't feeling suicidal, are you?" do not give the patient a chance to share their true feelings.[12] When the physician answers are nondescript such as "okay", "good", or "right", the patient's disclosure may be halted as the physician will not appear to be interested in discussing the sensitive subject of suicidal tendencies.[12] Most suicidal patients are ambivalent about dying and that is why just discussing with the primary care doctor can divert the patient from killing him/herself for the moment and it should alert the physician for the need of treatment.[10] It is important that the primary care physician develops therapeutic relationships with their patients so that both mental and physical health care treated with optimal care. It is also important to note that it is imperative to ask if patients have guns at home and whether they are in a locked box. Over 60% of firearm deaths in the United States are suicides and the majority of completed suicides are gun deaths.[1]

Suicide Interventions

Once the at-risk individual has been identified, the next step is ensuring their safety though treatment. Upwards of 90% of suicide attempts are committed by adults and adolescents with underlying psychiatric disorders and many of those individuals are untreated at the time of their death.

Treating underlying psychiatric disorders is a crucial component to preventing suicidal behavior. However, not every depressed person will attempt suicide. Different therapies have been shown to be effective in treating co-occurring suicidality and mental illness in patients. Psychotherapy also plays an important role in suicide prevention. Cognitive therapy has been shown to reduce suicide reattempt rates in patients by half. Dialectical behavioral therapy has also shown promise in borderline patients who have attempt suicide. In cases where the patients pose an imminent threat to themselves it is important to maintain the level of safety through follow-up inpatient or outpatient therapeutic support.[10]

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If a patient is diagnosed as being depressed, it is important to start them on antidepressants and refer them to a psychiatrist and a therapist. A safety plan should be addressed prior to allowing the patient to leave. The patient should be asked if he/she has any access to weapons. If the patient responds positively, it should be recommended that the weapons be removed temporarily or locked somewhere else so that it is not accessible.[10] As appropriate, it may also be beneficial to enlist the patient's family and friends in order to enforce and explore the accessibility to weapons for committing self-harm.[10] The patient should identify his/her triggers for suicidal thoughts and then find coping solution that might help. The patient should also be asked what is important in their lives so that they hope to keep going. The patient should identify people they are comfortable to talk to when they get in a suicidal state.

Once antidepressants have been prescribed for the patient, it is important to follow up within 2 weeks to ensure that the medication is working properly. There is a clear benefit for using pharmacotherapy in patients over age of 75 who present with depression.[5] When prescribing for adolescents, there is a "black box" warning of increased suicidality in adolescent patients starting antidepressants. However, this warning should not deter treatment. Family members should be informed of the black box warnings and so as to closely observe these individuals for any change in behaviors. Additionally, in certain patients pharmacotherapy is not sufficient to battle their depression, and it is important to also refer these patients for therapy. The importance of participating in therapy should be stressed upon as it can help prevent future episodes of depression. If the patient does have increased suicidal behavior, the patient should be sent immediately to the emergency department at their local hospital for a behavioral evaluation for immediate inpatient treatment.[10] An immediate behavioral evaluation can determine the patient's safety. At the hospital the mental health screener will formally evaluate them and it will be up to the screener whether the patient needs inpatient treatment immediately. However if the patient presents with any type of immediate suicide threat, it is best to send the patient to the emergency department at the local hospital without any other intervention. Immediate suicide threat can be defined as patient that has a suicidal intent and/or with/without a plan.[10]

Suicide re-attempts are often made in the period right after psychiatric hospitalization or during the next major depressive episode. The risk of suicide is higher the first year after hospitalization.[10] Keep in mind that a close follow- up, especially in days to weeks after discharge should be coordinated with outpatient providers. Once again, restricting a patient from means of suicide (firearms, weapons, chemicals, drugs, etc.) is an important step to preventing future attempts.

Delaware: A Population Case Study

The rate of suicide in Delaware has been slowly decreasing since the discovery of suicide clusters in Kent and Sussex County. Before their discovery, the state suicide rate was higher than the national comparison. In 2012, deaths by suicide among 12 to 21 year-olds slightly more than doubled compared to the statistics in 2011. In addition, many of these deaths occurred in close proximity to each other, which warranted a public health investigation that performed root cause analyses of the teen suicide clusters. The study identified 11 individuals that died by suicide and 116 youths that attempted suicide in the Kent and Sussex Counties between January and May of 2012.[13] The case control analysis found many of the suicides were significant as there was a past history of suicide attempts and depression when compared with the control group. However, there were some cases that the suicide was unplanned and impulsive, possibly impacted by life

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stressors. Life stressors were defined as having mental health illness, recent problems with parents, legal problems, recent problems with significant others, substance use, academic problems, communication with others about suicide, peer problems, and sexual minority status. It was found that many of the youth had multiple risk factors that precipitated the incident. The most common cause of nonlethal suicide attempts were overdose by over-the- counter medications or prescription medications found in the adolescent's home. About 15% of the 116 youth that attempted suicide had a peer or friend that had committed suicide. Regression analysis showed there was a lack of mental health training to recognize the suicidality, limited mental health support in the community, lack of resources to get help for mental health issues and substance abuse problems were a significant contributors to the suicide event. Furthermore, lack of positive activities and easy gun access also contributed to the suicides.

Suicide Prevention Efforts in Delaware

In June 2013, Delaware increased its efforts to reduce incidents of suicide among all populations with a special concentration on adolescents. The Delaware Suicide Prevention coalition, which began efforts in 2004, has enlisted multiple public, private and nonprofit organizations towards the goal of reducing suicide. The mission of the coalition is to raise awareness that suicide is a preventable public health problem, and to enable the behavioral and social changes necessary to reduce suicidal ideation and attempts. The Delaware suicide Prevention coalition developed a five-year strategy "The state of Delaware suicide Prevention Plan" which outlined 13 goals to complete this task such as: establishing suicide prevention activities, increasing education related to factors that offer protection from suicidal behaviors, promoting efforts to reduce access to lethal means of suicide among individuals with identified suicide risk, and promoting and supporting research on suicide behavior and prevention. By 2018 the strategy will be considered effective if suicide rates drop.[14] In addition to this plan, Delaware officials also instituted House Bill 90. This law mandates that schools must institute 90 minutes of suicide prevention training to their employees yearly. The goal of this training is to recognize youth suicide as a problem that needs to be tackled in the population and for schools to develop prevention programs to eliminate it. As the bill was signed in June 2015, its effectiveness has yet to be evaluated.

The Delaware suicide Prevention coalition has five subcommittees, which are each committed to a different area of suicide prevention work. The committees and some of their accomplishments are listed below.

Higher Education Suicide Prevention Subcommittee

Started in August 2016, this group is the newest subcommittee under the DSPC. This group aims to provide various activities throughout the school semester to get college-wide involvement in suicide prevention efforts, whether that may be trainings, contests, providing resources, or simple suicide prevention messaging. The group includes representation from five local college campuses, the Division of Prevention and Behavioral Health services, and the Mental Health Association in Delaware (chair).

The subcommittee is planning to have a social marketing campaign in February of 2017 where they will promote the Crisis Text Line, provide suicide prevention trainings to university/college staff and students, and also provide some screenings.

Project SAFETY, which is the work of a federal, five year Garrett Lee smith grant awarded to Delaware in 2014, is providing a behavioral health, electronic screening tool to primary care

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physicians, emergency Departments, and colleges in Delaware, free of charge. The tool is called BH-Works, screens across 13 domains, and provides immediate feedback identifying critical items to the nurse or other designee, leading to more accurate and efficient identification of students at risk, and promoting immediate referral to address those risks. It can also automatically become part of the individual's electronic medical record. This committee has presented the screening tool to colleges and universities as a free and effective screening and data collection resource. More information can be found about the screening tool here: http://bh-works.com/whybh-works/

Get Right Side Up

The mission of Get Right Side Up is to promote mental well-being and suicide awareness/prevention to the youth population. A youth is more likely to talk to a peer than an adult when having thoughts of suicide, so the focus is on educating youth on the warning signs of suicide, and on where to turn for help when someone is at risk.

The group is made up of representatives from various organizations, including the Mental Health Association in Delaware, the Division of Prevention and Behavioral Health/Project SAFETY, Rockford Center, Dover Behavioral Health, The CAUSE, Polytech High School, William Penn High School, and St. Mark's High School.

The committee hosts various contests throughout the year to encourage youth participation and promote suicide prevention. Previous contests included a YouTube PSA contest where the winning video was shown in movie theaters throughout Delaware, a second PSA contest with the winning video being shown on Comcast cable channels, and an Instagram contest in which participants had to create a new logo. Youth suicide prevention messaging is promoted during various trainings and presentations, email blasts, meetings, health fairs, posters, school newsletters, etc. The group maintains its own website – www.getrightsideup.org

Military Subcommittee

The military subcommittee has provided a yearly conference for the past 5 years, focused on suicide prevention in the military community. Participants include active military service members, veterans, their families, and providers who work with the military community. Topics range from PTSD and Traumatic Brain Injury to sexual assault in the armed forces, all related back to suicide prevention. The conference always includes a panel of veterans who speak about their recovery, and a plethora of exhibitors who provide resources to the military community.

There has also been a yearly family event planned by this subcommittee. Most recently, the committee has partnered with the New Castle County Night Under the Stars, where families can camp at a local park. The committee has a special section set up where military families can connect with one another and are provided with food, fun and information about resources in the community.

Suicide prevention gatekeeper trainings take place throughout the year, not only for active duty military, but for providers, students, school staff and many other individuals throughout the community.

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Surveillance Subcommittee

Since the cluster of suicides occurred in 2012, the coalition has taken a closer look at how we can access more real-time data related to suicide behavior, so that intervention can be deployed more successfully. This committee was formed in response to this need, and mainly includes representatives from the State Division of Public Health. For the past year, the division has worked towards becoming part of the CDC's National Violent Death Reporting System, and recently was successful in joining.[13] The committee hopes that this will create a real breakthrough for Delaware in being able to take a closer look at suicide data much more quickly than before. The committee is currently familiarizing itself with how the system works.

There are mobile crisis response systems in Delaware. There is one for kids under 18 which can be contacted 24-7 at 1800 969 HELP (4357) and the adult mobile crisis is 1-866-998-2243.

Additionally Project SAFETY, Division of Prevention and Behavioral Health, has brought Crisis Text Line into Delaware which provides 24/7 support via texting, a modality many adolescents and young adults favor over phoning. To use this serviced Text De to 741741. All ages are welcome to use it.

Conclusion

The rate of suicide has been rising continuously over the past decade. Evidence shows that suicide can be prevented sooner if depression is detected and treated. Suicide can be detected by using the primary care physician as a medium for screening. There are several tools provided by the American Psychiatry Association and Substance Abuse and Mental Health Services Administration. After assessing a patient and finding them positive for suicidal ideations, the course of treatment will depend on the primary care provider. The best course of treatment is to refer the patient to a psychiatrist and therapist and, if the patient is depressed, to decide on the medications. Depending on the severity of the patient's ideations, it may be important to also incorporate inpatient or outpatient resources provided by coalitions such as Get Right Side Up and the Delaware Suicide Prevention Coalition.

With increasing rates, suicide is considered an important public health issue. There is more focus in the public health sector to collect and analyze data when suicide occurs, create and implement preventive suicide strategies, and reevaluate whether the interventions are effective.[15] Public health investigations are collecting data to create a more informative preventive plan to address the rise of suicide rates among middle-aged adults.[15] Several challenges for this particular subset are intimate partner violence, substance use and economic challenges.

There are also increasing online resources to engage individuals in seeking help for suicides.

With the amount of resources available, no one should suffer from suicidal ideation. Patients can be treated more easily if medical, behavioral, and legislative personnel emphasize the importance of primary suicide prevention, suicide factor identification, and ease of access to mental health services. By decreasing the stigma of seeking mental health help and providing support services for emotional, interpersonal and financial stressors health, care professionals can identify and treat the signs and symptoms of suicide before it is too late.[15]

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