Depression Screening as an Intervention Against Suicide

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Depression is a common psychiatric disorder that can disrupt a person's health, work, and relationships, and—in some cases—lead to suicide. Disparity between the prevalence of depression and diagnosis and treatment of the disorder led to the creation in 1991 of National Depression Screening Day (NDSD), an annual nationwide screening program for depression. By raising awareness and reducing the stigma of depression, the national screening program addresses the problems of underdiagnosis and lack of treatment in persons suffering from the depressive disorder. Mental health professionals and colleagues in other specialties must reach out to depressed individuals and make it easier for them to access the health care system. This article discusses the origin and goals of NDSD, the NDSD model for the current community-based program, the results of NDSD screening, and the proposed future expansion of NDSD and the voluntary screening concept.

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Depression is a common psychiatric disorder that can disrupt a person's health, work, and relationships, and—in some cases—lead to suicide. According to National Comorbidity Survey (NCS) data,[1] the prevalence of current (30-day) major depression has been estimated to be 4.9%, and the prevalence of lifetime major depression has been estimated to be 17.1%. Unfortunately, less than 40% of persons with a lifetime psychiatric disorder ever received professional treatment, and less than 20% with a current psychiatric disorder were in treatment.[2] Thus, in any given year, millions of Americans who suffer with depression remain undiagnosed and untreated. Disparity between the prevalence of depression and the lack of treatment of the disorder led to the creation of National Depression Screening Day (NDSD).[3] This article will discuss the origin and goals of NDSD, the NDSD model for the current community-based program, the results of NDSD screening, and the proposed future expansion of NDSD and the voluntary screening concept.

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ORIGIN AND GOALS OF NATIONAL DEPRESSION SCREENING DAY

NDSD began as a pilot program at a local hospital in Quincy, Massachusetts, with the goals of educating the general public about depression and encouraging individuals who suffered with depression to seek treatment. With the support of the American Psychiatric Association and McLean Hospital in Belmont, Massachusetts, NDSD became a nationwide screening program in 1991 and is now held each October during Mental Illness Awareness Week. Screening sites include private psychiatric hospitals, general hospitals, outpatient psychiatric clinics, libraries, malls, corporations, and military bases. Starting with 90 sites in 1991, the program has expanded over the years; in 1997, more than 18,000 mental health professionals in over 3000 sites across the nation screened about 82,000 people for depression.

Psychological autopsy studies reveal that 90% to 93% of persons who commit suicide are suffering from either depression, alcoholism, or schizophrenia.[4] Studies have also shown that persons contemplating suicide may see a physician within a few months prior to completing suicide.[5] The implication of these studies is that many individuals who commit suicide appreciate the fact that they are troubled, and they may make an effort to seek medical help. Unfortunately, severe depression may interfere with one's ability and willingness to communicate suicidality directly to a physician.

The identification of depression in an individual may be an important step toward intervening against suicide. Screening protocols can provide clinicians with quick, efficient, and accurate tools to assess depression and may

help to reveal the presence or absence of major suicide risk factors. Mental and addictive disorders, frequently comorbid, are the most powerful risk factors for suicide in all age groups and account for over 90% of all completed suicides.[6] Both sociodemographic and clinical factors increase the lifetime risk of suicide.[5] Sociodemographic factors include being male; being age 60 years or older; being separated, divorced, or widowed; living alone; being Caucasian; having an absence of young children in the home; having financial problems; and/or suffering a recent humiliation. Clinical factors include clinical depression or schizophrenia; hopelessness; severe anhedonia; substance abuse; comorbid panic attacks or other anxiety symptoms; history of suicide attempts; and/or suicide ideation. Since risk factors for suicide rarely occur in isolation, intervention efforts are more likely to succeed if multiple risk factors are targeted.[7] By becoming familiar with suicide risk factors and learning to recognize common symptoms of depression, clinicians may be better able to identify depression and initiate lifesaving interventions in persons at risk for suicide.

NDSD: A COMMUNITY-BASED SCREENING PROGRAM

The World Health Organization has published criteria for screening diseases[8] that include the following: (1) the disease is prevalent, (2) the disease may not be evident to the person who has it, (3) the disease is treatable, (4) early intervention is advantageous, (5) the screening test is reliable, and (6) the cost and burden of screening is moderate. Depression clearly fits these criteria. However, since there is no attempt to screen whole populations or subpopulations, NDSD is not a classic screening program. NDSD is a voluntary screening effort that is more akin to case finding and results in a nonrandom self-selected study group with unique clinical and sociodemographic characteristics.

The NDSD model consists of education, screening, and referral (if appropriate). All screenings are conducted anonymously and free of charge. The NDSD project office recruits mental health facilities nationwide to conduct local screening programs and provides each participating site with a detailed procedure manual describing the screening process.[9] Participants are given a screening form consisting of demographic questions and a psychological screening test for depressive symptoms—the 20-item Zung Self-Rated Depression Scale (SDS).[10] When completed, the screening form becomes the participant's mental health inventory. While the forms are being scored, a mental health professional conducts an educational session on depression that consists of a lecture followed by a question-and-answer period. Videotapes (on depression) run continuously throughout the day, and printed educational materials are readily available at resource tables.

Table 1. Overall Participation in National Depression Screening Day

Year	Attended	Screened	Hospitalized
1991	5,000	3,000	30
1992	24,000	16,700	180
1993	56,000	44,000	336
1994	82,000	67,000	349
1995	80,000	61,000	198
1996	85,000	63,000	182
1997	82,000	62,000	169
Total	414,000	316,700	1,444

In the author's opinion, the key to the success of NDSD is the private interview between the participant and the mental health professional after the inventory has been completed and scored. During this interview, the inventory is reviewed, additional information is obtained, and a referral is made to a local community resource if indicated. Each year, a number of participants present with severe depression, and the mental health professional must occasionally make quick decisions about referral and possible hospitalization of those individuals.

RESULTS OF NDSD SCREENING

NDSD data indicate that depression screening identifies individuals suffering from undiagnosed and untreated depression and motivates them to seek treatment. Since NDSD began in 1991, over 400,000 individuals have attended the events (Table 1). Of this number, 316,700 were screened and 1444 were hospitalized. During the last 4 years, the attendance at various screening sites seems to have stabilized, with about 80,000 individuals participating annually. The number of participants hospitalized during the last 4 years has decreased from 349 to 169; however, this reduction in number may be a reflection of recent changes in the criteria for hospital admission rather than a decrease in severity of illness. The most dramatic finding of NDSD is the number of depressed persons encountered each year.[3,11,12] A summary of NDSD data in 1996 showed that 70% (over 200,000 persons) of individuals screened had SDS scores consistent with depression; 94% of those individuals were in no current treatment. Another dramatic finding was that 22% (almost 70,000 persons) of identified depressives scored in the severe range, and 87% of those individuals were not in treatment. Additional sociodemographics of NDSD 1996 showed a predominance of depression in women (76%) over men (24%); most had a high school education; and 38% were married while 35% had never married.

Depression is a disorder characterized by both psychological and physical symptoms, and the psychological symptoms may be less likely to draw attention and harder to uncover than the physical symptoms. Moreover, depression may be difficult to diagnose because of the fear of stigma and the nature of the depressive illness itself,

which fosters feelings of worthlessness, guilt, and helplessness.[13] NDSD findings consistently reveal a predominance of psychological symptoms over physical symptoms in persons with SDS scores consistent with depression. A total of 91% of moderately or severely depressed individuals (by SDS scores) suffered from all of the 5 most common symptoms of depression identified in NDSD screenings. All of the 5 symptoms are psychological and include (1) difficulty doing familiar tasks, (2) hopelessness about the future, (3) difficulty making decisions, (4) feeling worthless and unneeded, and (5) less enjoyment of once-pleasurable activities. Only about 50% of moderately or severely depressed individuals (by SDS scores) had all of the physical symptoms of depression, which include fatigue, rapid heartbeat, constipation, changes in appetite, weight loss, and difficulty sleeping.[14] Clinicians must be aware that physical symptoms are not essential to the diagnosis of depression and that the most serious symptom of depression, i.e., thoughts of death and suicide, is psychological.

Suicide

Depression screening can provide an impetus for conversation when individuals are hesitant to mention psychological symptoms or initiate a discussion of suicidal thoughts with their physicians. It has been reported that 75% of patients who complete suicide have seen a physician within 6 months of the suicide.[4,5] Studies reveal that about 30% of persons who commit suicides are being treated by mental health professionals at the time of suicide.[15]

Suicide Ideation

A narrow definition of suicide ideation is one that goes beyond thoughts of death to include the active consideration of taking one's life, with or without a plan.[16] On the basis of this narrow definition, approximately 5 million persons in the United States annually have suicide ideations—yet only approximately 30,000 persons annually commit suicide. Although suicide ideation is not a robust indicator of impending suicide, it may be used as an additional assessment tool. Depressed individuals with thoughts of suicide are at the top of the list of patients that NDSD mental health professionals hope to detect and target for treatment. The clinical challenge is in recognizing which depressed patients are at a high risk for suicide.

Follow-Up Studies

Follow-up studies are currently being conducted to evaluate the effectiveness of NDSD.[3,11,12] Participating academic centers and private psychiatric hospitals have been equipped with special forms for participants who are willing to be briefly interviewed in an anonymous telephone survey 30 to 60 days after NDSD. Results of follow-up surveys show that 65% of individuals who had SDS scores consistent with depression kept their referral appointments. Nearly 78% of patients continued in treatment for 6 months or more, and 93% attended 2 or more follow-up sessions. A total of 32% referred for follow-up were evaluated by a psychiatrist, 19% by a psychologist, 17% by a nonpsychiatric physician, and 23% by a nurse, social worker, or counselor. Treatment was in the form of pharmacotherapy alone (40%), psychotherapy alone (30%), or a combination of pharmacotherapy and psychotherapy (30%) (Greenfield S, Jacobs DG, unpublished data, 1996). Follow-up studies of NDSD demonstrate that screening is an effective means of connecting depressed individuals with the mental health system.

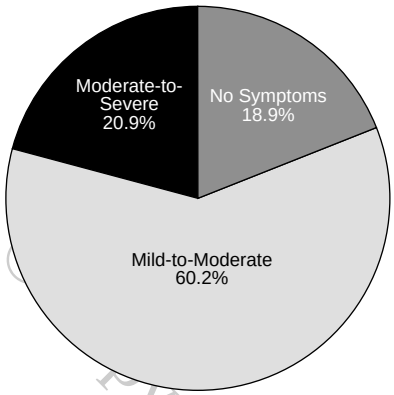
FUTURE EXPANSION OF NDSD

Mental health professionals and colleagues in other specialties must reach out to depressed individuals and make it easier for them to access the health care system. To promote the outreach effort, the NDSD project office conducts a national publicity campaign, while individual screening facilities depend on local media to promote interest and information about depression and NDSD. Media coverage includes radio, television, and local and/or national print media. In 1997, extensive national coverage—over 400 million media impressions—emphasized the importance of identifying depression and provided information to the public about the signs, symptoms, and treatment of the depressive disorder.

A depression symptom checklist was recently published in *Parade* magazine along with an 800 telephone number as part of a voluntary public screening program for depression. This particular intervention yielded 106,467 calls during a 2-week screening period; 60.2% of callers were identified with mild-to-moderate depression, 20.9% with moderate-to-severe depression, and 18.9% had no depressive symptoms (Figure 1). Only 13% of all identified depressed callers were in current treatment for depression. Another expansion of voluntary community-based depression screening is the Employee Telephone Access Program, an interactive-voice recognition computerized system developed for NDSD by the Harvard Medical School Telepsychiatry Project.[17] This system is being marketed to corporations and health care companies in order to offer employees and subscribers access to telephone screening for depression.

The NDSD model is also being used as an educational and screening tool for detection of illnesses other than depression—such as anxiety and eating disorders, and alcoholism. Moreover, a new 10-item The Harvard Department of Psychiatry/National Depression Screening Day Scale (HANDS) depression screening test has recently been developed by NDSD personnel in conjunction with researchers at Massachusetts General Hospital. The test has been validated by using the Structured Clinical Inter-

Figure 1. Number of Telephone Responses to *Parade* Magazine Article*



*106,467 calls received in a 2-week period after publication of article.

view for DSM-IV and will be used as a screening tool in the future (Baer L, Jacobs DG, Blais M, et al., unpublished data, 1998). Other future directions of NDSD include expansion of the program to include primary care physicians—4000 of whom will screen their already-scheduled office patients for depression on NDSD 1998—plus inclusion of questions pertaining to bipolar disorder during NDSD 1998 and continuation of the interactive-voice recognition sister program using the telephone depression screening protocol.

CONCLUSION

NDSD is a public awareness screening event that is designed both to reach individuals with unrecognized depression and to educate the public about the depressive disorder. It is a voluntary screening effort that provides clinicians with tools to assess depression and identify the absence or presence of major risk factors for suicide. Since 1991, over 400,000 individuals have attended NDSD in over 3000 sites in the United States. Data from screening efforts indicate that NDSD is reaching people with undiagnosed, untreated clinical depression, but there is clearly more work to be done. The continuing goal of depression screening is to go beyond the closed doors of the psychiatric clinic and provide a bridge between awareness and treatment for all depressed individuals in the community.

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