The Teen Depression Awareness Project

Building an Evidence Base for Improving Teen Depression Care

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As many as 20 percent of American teenagers experience depression by the age of 18. Although effective treatments are available, most teens with depression have limited access to specialty mental health care. Most of those who receive care are treated in primary care, which makes these settings promising venues for efforts to improve access to care and outcomes for depressed teens. Yet the evidence base to support such efforts has significant gaps. Much of what we know about depression's effects and treatment comes from studying adults. Depression's effects on adolescent functioning and family burden are not well understood; there is also limited understanding of teens' and parents' attitudes and knowledge about depression, how these and other factors influence readiness for treatment, and the barriers to care that teens and their parents encounter.

Key findings:

- **Depression significantly impairs teen functioning in school, among peers, and in family life, and effects may persist.**
- **A majority of white teens reported readiness for treatment for depression; African-American and Hispanic teens reported readiness at lower rates.**
- **Greater knowledge of depression therapies, especially among parents, influenced teens' likelihood of receiving care.**
- **Parents and teens who sought treatment perceived barriers that may have stopped them from beginning or continuing care.**

Study Purpose and Approach

To address these knowledge gaps, a team of RAND Health researchers conducted the Teen Depression Awareness Project (TDAP), a multiyear study supported by Pfizer, Inc. The study's goal was to build an empirical base for developing strategies to improve depression care for teens who seek treatment in primary care settings. The study addressed four main questions:

- How does depression affect teens' academic, social, and physical functioning?
- After depression is detected, what factors influence teens' readiness to seek treatment?
- How do attitudes and knowledge about depression therapies vary across racial/ethnic groups and between parents and teens?
- After deciding to seek care, what barriers to initiating and continuing treatment do teens and parents perceive?

The TDAP team recruited two groups of teens—one with and one without probable depression—and their families from 11 primary care offices in the Los Angeles and Washington, D.C., metropolitan areas to participate in a longitudinal study. Out of nearly 5,000 teens, 184 teens identified with probable depression were asked to participate. The same number of nondepressed teens was recruited to provide a matched sample. The sample included a racially and ethnically diverse population: 49 percent Hispanic, 32 percent African-American, 14 percent white, and 3 percent from other groups. One parent or legal guardian of each participating teen from both groups participated in the study. Teens and parents were interviewed first at baseline and again six months later.

Depression Significantly Impairs Teen Functioning, and Effects Can Be Long-Lasting

The first study phase examined depression's effect on teens. The team assessed depressed teens' func-

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tioning and compared the results with those for nondepressed teens. The analysis measured teens' perceptions of social and family support, academic engagement, physical functioning (in terms of health-related quality of life), and days of impairment. It also examined depression severity and the presence of coexisting conditions, such as anxiety, hyperactivity, drug use, aggression, and posttraumatic stress disorder (PTSD) symptoms.

Results showed significant effects of depression across all of these dimensions. Compared with teens without depression, even after adjustment for race, gender, and income, depressed teens reported that they

- felt less supported by peers and parents
- felt less engaged academically and received lower grades
- faced more problems with physical functioning
- experienced more days impaired in their daily functioning.

Depression severity was also linked to impairment. For example, 57 percent of depressed teens whose symptoms ranked them in the top third for severity (i.e., those with the most severe depression) reported a grade point average of 2.0 (grade C) or better, compared with 76 percent of teens in the bottom third (Figure 1). When asked how many days depression had interfered with their functioning, more severely depressed teens reported experiencing more than twice as many days of impairment as those in the lowest third (Figure 2).

Findings from parent reports of teen functioning mirrored these results across all dimensions. In addition, parents of depressed teens reported experiencing higher levels of personal and family strain as a result of their child's depression. Six-month follow-up data indicated that most of these effects persisted, especially views of low peer and parental support and the parent's report of greater family strain.

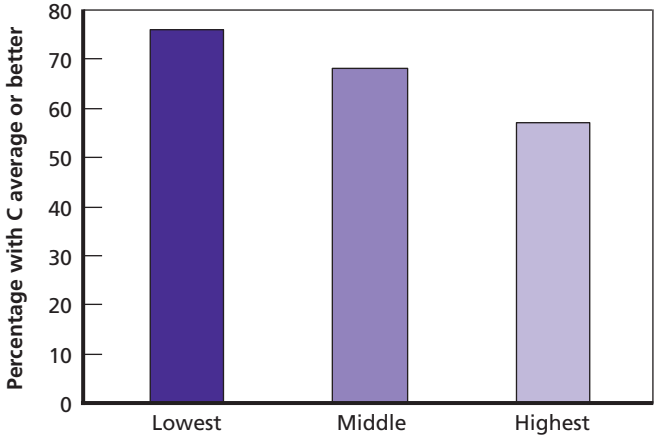
The analysis also found that depressed teens were more likely than their nondepressed counterparts to suffer from coexisting emotional and behavioral problems, including anxiety, PTSD, hyperactivity, drug use, and aggressive behavior (Figure 3). These conditions accounted for some functional impairment reported by teens, but depression by itself still had a significant effect.

These results suggest that identifying and treating depressed teens could have benefits that extend beyond the treatment of clinical symptoms and could improve social, academic, and family functioning at the time of detection and over time. The results also point to the value of treatment that addresses other emotional and behavioral problems that teens may be experiencing in addition to depressive symptoms.

Teen Readiness for Care Affects Treatment Seeking

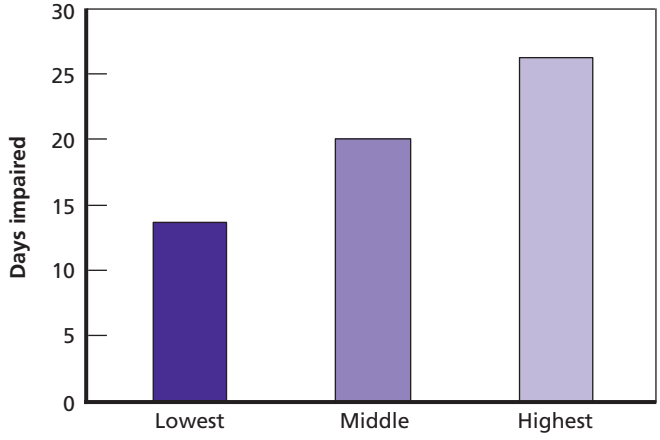
Given the harmful effects of depression on teens' lives, the need for intervention is clear. Yet studies show that nearly 80 percent of teens who suffer from mental disorders do not seek treatment. What affects decisions to seek care for depressed teens? Although many studies in the past have focused on structural barriers to care, such as insurance coverage and provider availability, very little research has focused on personal factors, such as "readiness" for care—that is, perceptions about viewing depression as a problem, understanding the symptoms, knowing about treatment options, and wanting to get help. A second thread of the TDAP study analyzed

Figure 1
Severity of Teen Depression Was Linked to Lower Grades…



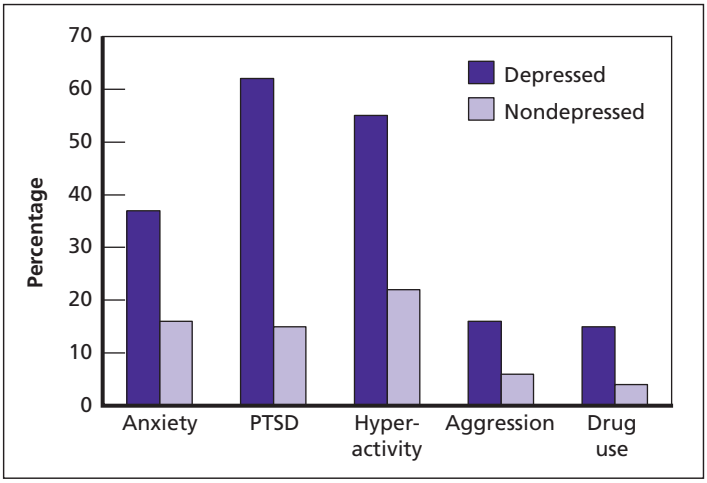
NOTE: "Lowest," "Middle," and "Highest" refer to severity of depression; "Lowest" refers to the third of those depressed students with the least severe symptoms, "Middle" refers to the medium third, and "Highest" refers to the third with most severe symptoms.

Figure 2
…And More Days of Functional Impairment



NOTE: "Lowest," "Middle," and "Highest" refer to severity of depression; "Lowest" refers to the third of depressed students with the least severe symptoms, "Middle" refers to the medium third, and "Highest" refers to the third with most severe symptoms.

Figure 3
Depressed Teens Are More Likely to Suffer from Other Emotional or Behavioral Conditions



teen and parent readiness for teens to seek depression care and examined the relationship between readiness and actually seeking treatment.

The analysis found significant differences in teen readiness across racial and ethnic lines. The majority of African-American teens were "unsure" whether they were ready for treatment, and the majority of Hispanic teens were "not ready"; by contrast, the majority of white teens reported being "ready" for treatment. In addition, teens in the "ready" group were more likely to

- be female
- come from households with annual incomes greater than $30,000
- have a greater number of depressive symptoms
- prefer combined treatment (counseling plus antidepressant medication), compared with teens in the other two groups, who were more likely to prefer counseling only or no treatment.

Analysis of six-month follow-up data showed that being "ready" significantly increased the likelihood that teens would receive some form of care.

With respect to parent-teen comparisons, a substantially larger proportion of parents than teens expressed readiness for the teen to seek care (Figure 4). In addition, parent acknowledgement of the teen's depression had a strong impact on teen readiness, independent of symptoms.

The results underscore that, in primary care, detecting depression and giving feedback to parents and teens may be insufficient for getting teens into care, given that many teens and parents are either not ready or are not at the same level of readiness. Educational and motivational interventions may be needed to help teens and parents understand depression as a problem, learn about treatment options, and motivate them to seek care. Ensuring that the parent acknowledges that the teen has a problem with depression may contribute to the teen's readiness for care. However, as suggested by the striking difference between parent and teen perceptions, parental acknowledgement of the problem alone may be insufficient to ensure that the teen is ready to seek care.

Knowledge About Depression Treatment Varies Across Racial, Ethnic, and Generational Lines

Another phase of the TDAP study explored teen and parent knowledge of depression treatment. Teens and their parents were asked about their knowledge of the two main therapies for depression: counseling and antidepressant medication. Researchers also examined how knowledge was related to treatment preferences and willingness to seek care.

The results showed differences across racial and ethnic lines. Hispanic and African-American teens knew less than their white counterparts about both antidepressants (Figure 5) and counseling (Figure 6); in both areas, the difference between white teens and those in other groups was statistically significant. Within the same ethnic group, parents knew more about counseling than teens; this difference was also statistically significant. The analysis also found that parents' knowledge influenced teens' knowledge: Teens across all groups who turned for advice to a parent with more knowledge about antidepressants also knew more about medication. This relationship did not hold for counseling knowledge.

With respect to treatment preferences, the results revealed generational differences. Most teens in each group (71 percent of African-American, 67 percent of Hispanic, 73 percent white) preferred active treatment—either counseling, medication, or a combination. Most parents also preferred

Figure 4
More Parents Than Teens Reported Readiness for Care

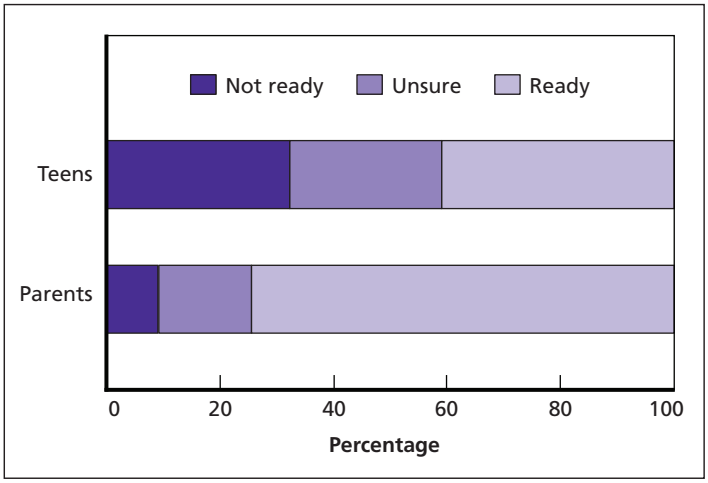
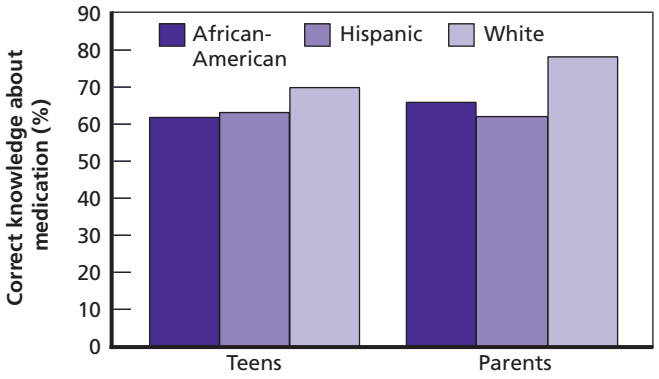
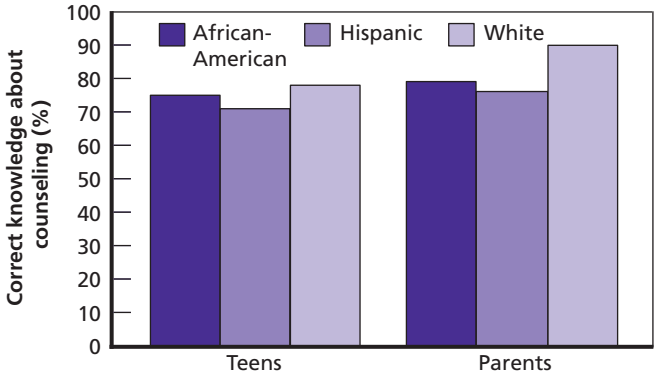


Figure 5
African-American and Hispanic Parents and Teens Had Less Knowledge About Antidepressant Medication



NOTE: Bars represent mean percentage of correct survey answers on a total scale of 20 points.

Figure 6
Within Each Ethnic Group, Parents Knew More About Counseling Than Teens



NOTE: Bars represent mean percentage of correct survey answers on a total scale of 20 points.

active treatment, but there were significant differences across groups: Fewer Hispanic and African-American parents preferred active treatment (76 percent and 77 percent, respectively) compared with white parents (94 percent). The favored treatments for Hispanic and African-American parents were counseling (66 percent and 62 percent) or passive treatment ("watchful waiting"—22 percent and 24 percent, respectively). In contrast, preferred treatments among white parents were counseling (48 percent) or combination treatment (45 percent). Hispanic and white teen-parent pairs disagreed about treatment preference (with more teens in each instance favoring active treatment), but this level of disagreement did not appear among African-American parents and teens.

How did knowledge influence willingness to seek treatment? Across all racial groups, teen knowledge about treatment options was strongly associated with greater willingness to seek treatment. Teens who felt they could turn to their parent for treatment advice generally reported better understanding of treatment options.

The results underscore the importance of parental knowledge about depression treatment. Teens who talked with knowledgeable parents knew more about treatment, and greater knowledge translated across all racial/ethnic groups into greater willingness to seek treatment.

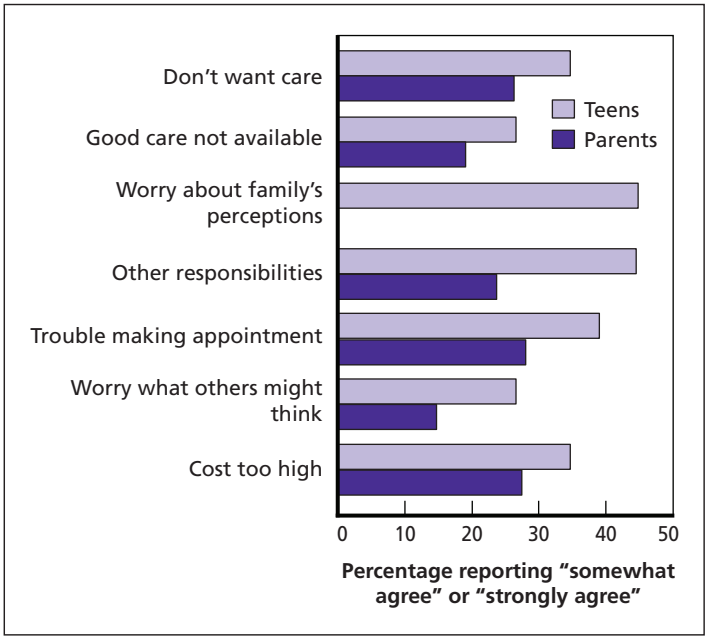
Barriers to Care: Teen and Parent Perceptions Differ

Once teens and parents decide to seek treatment for teen depression, they may still perceive barriers to obtaining care. Barriers to depression treatment faced by teens are likely to be more complicated than those for adults because many adolescents rely on their parents for transportation and money as well as information and emotional support.

A fourth phase of the TDAP project examined perceptions of barriers among teens and parents and the extent to which these affected initiation and continuation of care during the six months after depression was detected among those who had decided to seek care.

At their initial interview, depressed teens perceived more barriers than their parents. The most prevalent barriers for teens with depression were (1) worries about family perceptions, (2) other responsibilities, and (3) trouble making an appointment. The most prevalent barriers for their parents were (1) trouble making an appointment, (2) cost was too high, and (3) didn't want care (Figure 7). At the six-month

Figure 7
Teen Perceptions of Barriers to Care Differed from Parental Perceptions



follow-up interviews, researchers found that rates of treatment for depressed teens were relatively low. Overall, 56 percent of the depressed teens reported receiving any treatment; 55 percent had received counseling, and 26 percent had received at least four counseling sessions; 17 percent reported receiving antidepressant medication; and 7 percent reported regular antidepressant use.

Teens' perception of barriers reduced their likelihood of receiving treatment. Teens who perceived more barriers had significantly lower odds of receiving an antidepressant, of receiving a regular course of antidepressant therapy, and of receiving any regular treatment.

These results suggest that getting teens into depression treatment through primary care may require more than detection and a referral to specialty care. Primary care physicians need to engage in direct conversation about perceived barriers. Discussions are likely to be most worthwhile if they speak directly to teen concerns about stigma as well as parent concerns about cost and access.

Implications for Practice and Research

TDAP made several contributions to the knowledge base for informing treatment of teen depression. It demonstrated for the first time that depression significantly impairs teens' functioning across multiple domains and that these effects may linger. TDAP also showed how parent and teen attitudes and knowledge relate to treatment preferences and receiving care. Results showed that readiness for care, including accepting depression as a problem and desiring to seek treatment, exerts a strong influence on the decision to enter care; that greater knowledge among both teens and parents about different depression therapies increases the chances of seeking care; and that teens and parents who decide to seek treatment still perceive a number of barriers that may stop them from initiating or continuing care.

In addition, a theme emerged that could guide further research: the importance of communication. Depressed teens who communicate more and share feelings with parents are more likely to be ready for care and to know more about depression therapy, both of which increase the likelihood of receiving care. Research needs to explore the content of teen-parent communication about depression and whether there are differences in the conversation by race and ethnicity. Direct provider communication with both teens and parents can also be critical. Teens who are less ready for care may need follow-up primary care visits or additional consultation to help them become more motivated to seek care. Direct communication by providers to parents can help motivate them to seek care for their teens, which in turn can improve teen readiness for care. Research is needed to assess the potential role that brief motivational interventions can play in this kind of communication. ■

This Highlight summarizes RAND Health research reported in the following publications:

Chandra A, Scott M, Jaycox L, Meredith L, Tanielian T, and Burnam A, "Racial/Ethnic Differences in Teen and Parent Perspectives Toward Depression Treatment," *Journal of Adolescent Health*, Vol. 44, No. 6, June 2009, pp. 546–553.

Jaycox L, Stein BD, Paddock S, Miles JVN, Chandra A, Meredith L, Tanielian T, Hickey S, and Burnam A, "Impact of Teen Depression on Academic, Social, and Physical Functioning," *Pediatrics*, Vol. 124, No. 4, October 2009, pp. e596–e605.

Meredith L, Stein BD, Paddock S, Jaycox L, Quinn V, Chandra A, and Burnam A, "Perceived Barriers to Treatment for Adolescent Depression," *Medical Care*, Vol. 47, No. 6, June 2009, pp. 677–685.

Tanielian T, Jaycox L, Paddock S, Chandra A, Meredith L, and Burnam A, "Improving Treatment Seeking for Adolescents with Depression: Understanding Readiness for Treatment," *Journal of Adolescent Health*, Vol. 44, No. 5, May 2009, pp. 490–498.

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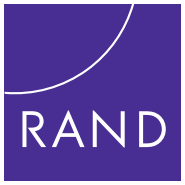

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