



## CONQUERING THROUGH COLLABORATION

The University of Michigan Depression Center  
Network Newsletter

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### **Depression and Comorbid Cardiovascular Disease: A Focus for Research, Prevention, & Treatment**

The treatment and care for depression can be complicated by what we call “comorbid conditions,” or other diseases that often accompany depression. These diseases include, but are not limited to: other psychiatric disorders (anxiety, eating disorders), chronic illnesses (Parkinson’s, Cushing’s disease, cancer, cardiovascular disease), and addictive disorders (alcoholism, substance abuse.) The co-occurrence of depression with these diseases complicates every aspect of its detection, diagnosis, treatment, and management.

One of these so-called comorbid conditions, cardiovascular disease, has received attention both in research and in the popular press. As a result, what we now know is:

- ♥ People with heart disease are more likely to suffer from depression than otherwise healthy people
- ♥ People with depression are at greater risk for developing heart disease
- ♥ People with heart disease who are also depressed have an increased mortality rate post-heart attack  
(NIMH, May 2002)

At the Depression Center, researchers and clinicians are attempting to better understand the relationship between depression and cardiovascular disease. In this issue of Conquering Through Collaboration, Dr. Oliver Cameron, a Depression Center Network member and an expert in the area of depression and comorbid cardiovascular disease, explains the key issues. Another Network member, Dr. Cynthia Pomerleau, highlights the link between depression, cardiovascular disease, and smoking on page 3. And finally, Dr. Bertram Pitt, also a member of the Depression Center, explains what can be done to help reduce the burden associated with these co-occurring conditions.

To learn more, you are encouraged to attend this year’s Advances in Psychiatry Conference, which explores this issue of the comorbidity of depression and cardiovascular disease. The two-day conference, Depression and Cardiovascular Disease (first day) and Addiction Psychiatry Update (second day) will take place in the Towsley Center of the University of Michigan Hospital this Thursday and Friday (November 14-15, 2002). Health Care Professionals will receive 11.25 CME credits for attending the conference. For more information, visit our website at <[www.depressioncenter.org](http://www.depressioncenter.org)>.

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## **Depression and Cardiovascular Disease: What Are the Issues?**

**- An interview with Dr. Oliver Cameron -**

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Dr. Cameron highlighted three important issues related to the link between depression and cardiovascular disease. First, is the importance of recognizing the link. According to Dr. Cameron, the idea that depression and cardiovascular disease are somehow related is not new. However, recent findings, the general awareness of depression's impact on society, and the costs associated with depression have generated a lot of interest in this area. As a result, we now know a fair amount about this link and its consequences. The evidence now indicates the following regarding the risk of experiencing subsequent adverse cardiac events following an initial event: (1) in persons who have experienced a heart attack, the presence of depression moderately increases (1.5-2 times) the risk; (2) if the episode of depression in the cardiac patient is not his or her first, the risk increases to 3-4 times; and (3) the more severe the depression, the greater the risk.

The second issue related to the link between depression and cardiovascular disease is that of treatment. Dr. Cameron explained that until recently, physicians were reluctant to treat depression in their cardiac patients in part because the older classes of antidepressants were cardiotoxic. Recent research, such as the SADHART study (Sertraline Anti-Depressant Heart Attack Randomized Trial) has uncovered the fact that SSRIs such as sertraline are safe to use to treat depression in this population. A larger question is whether antidepressants can also change the prognosis for cardiac patients. SADHART found a modest decrease in the number of recurrent adverse cardiac events in its subjects treated with sertraline, though this decrease was not statistically significant. However, Dr. Cameron points out that considering the prevalence of heart disease, even a modest decrease affects a large number of people.

Finally, the third important issue related to the link between depression and heart disease is the identification of an underlying physiological mechanism. While we have not yet identified this mechanism, the following physiological abnormalities have been implicated: (1) abnormal platelet function; (2) elevated stress-related adrenaline levels; and (3) Central Nervous System (CNS) dysfunction (e.g. altered heart rate variability). Dr. Cameron also acknowledged that other factors, such as adherence and smoking behavior, can contribute to the higher risk of subsequent adverse cardiac events associated with depression. Treatment of depression could improve cardiovascular prognosis by treating the depression itself, which in turn improves the prognosis, and/or by normalizing some underlying dysfunction common to both disorders.

Additional research is needed in order to fully address the three issues listed above. For instance, further investigation into the effects of SSRIs on the risk of recurrent, adverse cardiac events is warranted. At the very least, however, we must recognize that depression worsens the course of cardiovascular disease. Therefore, health care providers must be able to identify patients with depression so that they may intervene and treat more aggressively.

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## **Depression and Smoking**

**- An article by Dr. Cynthia Pomerleau -**

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What is the biggest danger faced by people with depression? The answer may surprise you. Each year, more than 400,000 Americans die from smoking-related diseases, including cardiovascular disease, lung cancer, and many other forms of cancer. Because people with depression are about twice as likely to be smokers, and because they are also more likely to be “heavy smokers”, they suffer far more than their “fair share” of smoking-related diseases.

Despite the grim statistics, smoking in depressed individuals tends to receive less attention from the medical profession than it deserves. Far more has been done on the link between depression and cardiovascular disease—often phrased in terms of whether there is excess morbidity and mortality *after controlling for* smoking and other substance use. Although this is a perfectly legitimate research question and a perfectly legitimate statistical procedure, anyone whose primary concern is preventing cardiovascular disease in depressed individuals would do well to start by addressing smoking.

The Nicotine Research Laboratory, which is affiliated with the University of Michigan Depression Center, is dedicated to improving our understanding of the depression-smoking link and to raising awareness of this association in the medical community. A current Nicotine Research Laboratory project, funded by the National Institute on Drug Abuse, is designed to test subjective and behavioral response to several days abstinence in smokers who score high and low on measures of depression and nicotine dependence. We hypothesize that under conditions of smoking deprivation, nicotine dependence will be associated with disproportionate elevations in craving, whereas depression will be associated with disproportionate elevations in affective withdrawal symptomatology, particularly depressed mood. Moreover, we hypothesize that smokers who are either nicotine dependent or have meaningful symptoms of depression will have greater difficulty abstaining than smokers who are nondependent and low in depression, with smokers who are both nicotine dependent and high in depression having the greatest difficulty.

**To learn more about the smoking-depression link and the work of the Nicotine Research Laboratory, please visit <<http://www.med.umich.edu/niclab/>>. To read more about the comorbidity of depression with other diseases, or about the Depression Center, please visit the Depression Center website at <[www.depressioncenter.org](http://www.depressioncenter.org)>.**

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## **Depression and Cardiovascular Disease: What Can Be Done?**

**- A conversation with Dr. Bertram Pitt -**

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When asked whether we are doing a good job of disseminating information to cardiologists and primary care providers about depression and cardiovascular disease, Dr. Bertram Pitt simply replied, “No, we are doing a poor job.” He explained that while cardiologists may be aware of the link, the information is not being filtered down to internists and family medicine physicians. Furthermore, though cardiologists may be more aware, Dr. Pitt believes they still are not properly recognizing or treating depression in their patients. He recommends that cardiologists screen for depression in their offices, treat if possible, and refer if necessary. At the very least, once the depression is recognized, he believes that it should be acknowledged as a risk factor for increased adverse cardiac events, and that the patient’s heart problem should be treated more

aggressively. He also suggests that psychiatrists and other mental health professionals be aware of their depressed patients' increased risk for developing cardiovascular disease, and refer those whom they believe are particularly susceptible. Dr. Pitt concluded our discussion by mentioning that a professional education series such as the two-day Advances in Psychiatry conference should help to inform cardiologists and others about this link and about how we can help prevent the progression of both diseases.

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## DEPRESSION CENTER NEWS...

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### **New Additions to the Depression Center Team:**

Karen Crawford and Claire Hughes joined the Depression Center Team in October. Karen will assume the new Major Gifts Officer position, working closely with Dr. Greden to identify and secure funding for the Depression Center facility and priority programs. Karen has a rich background in the healthcare field, having worked in hospital strategic planning, community health service delivery, healthcare management consulting, and development. Karen will divide her time between the Medical Center Development Office and the Depression Center. She can be reached at [kcraw@umich.edu](mailto:kcraw@umich.edu) or 647-9138.

Claire, a graduate of the University of Notre Dame, is also filling a much needed role in the Center. She will work with Deb Tatchin and Penny Stober as the Center's financial analyst. She can be reached at [caheil@umich.edu](mailto:caheil@umich.edu) or 764-9147.

### **Funding News:**

Blue Cross Blue Shield of Michigan has awarded \$50,000 to the faculty at the Geriatric Psychiatry Clinic to design and implement the Older Adult Depression Initiative (OADI) aimed at increasing the detection and referral of older adults with depression. The initiative will be designed and implemented by Drs Helen Kales, Alan Mellow, Fred Blow, and Kris Barry. Karyn Schoem, a social worker in the clinic, will provide staff support for the project.

### **Depression Center in the News!**

Keep a look out for features on the Depression Center in the following publications / media:

- ★ Observer/Eccentric Newspaper
- ★ Chelsea Standard/Dexter Leader
- ★ Detroit Free Press
- ★ Detroit News
- ★ Monroe Evening News
- ★ WXYZ-TV Channel 7 (Dr. Paul Quinlan is interviewed by Carolyn Clifford)

### **In Our Next Issue.....**

### **[New Clinical Services at the Depression Center](#)**

*The Depression Center Newsletter will be sent via e-mail periodically. It will also appear on the Center's website, [www.depressioncenter.org](http://www.depressioncenter.org). We have compiled a list of people to whom this newsletter will be sent. If you do not wish to be on this list, or if you know of anyone who wishes to be added, please e-mail the editor at [snewlin@umich.edu](mailto:snewlin@umich.edu).*