Multidisciplinary Team to Explore Links between Oral and Mental Health in Women with HIV

A multidisciplinary University of Miami Miller School of Medicine research team will explore the links between oral and mental health in women with HIV. The collaborative study, supported by a $2.15 million five-year grant from the National Institutes of Health, is designed to provide insights that could improve overall health and quality of life for the estimated 300,000 women living with HIV in the United States.

(From left) Deborah Weiss, Ph.D.; Carrigan Parish, D.M.D., Ph.D.; and Maria Alcaide, M.D. are principal investigators in the CROWN study.

“We will use interdisciplinary research to better understand the two-way interaction between mental and oral health, and the overall impact on women living with HIV,” said Deborah Jones Weiss, Ph.D., professor of psychiatry and behavioral sciences. “If we can identify important components in that interactive relationship, we can develop mental and oral health interventions can benefit women in many ways.”
Daniel J. Feaster, Ph.D.

Dr. Weiss is one of four principal investigators in “The CROWN study: Comprehensive Research on Oral and mental health among WomeN,” conducted by the Miller School in collaboration with the University of North Carolina. The other principal investigators are Maria Alcaide, M.D., professor of infectious diseases/medicine and director of clinical research at the Miami Center for AIDS Research (CFAR) clinical core; Daniel Feaster, Ph.D., professor of biostatistics in the Department of Public Health Sciences; and Carrigan Parish, D.M.D., Ph.D., a Miller School-trained epidemiologist and assistant professor at Columbia University.

“This will be the first study to address the relationship between HIV, oral health and mental health over a woman’s lifespan,” said Dr. Weiss, who is also co-director of the Center for HIV and Research in Mental Health (CHARM). “It is also important because poor oral health may be linked to higher risks of infections, heart disease and other problems. For example, the American Heart Association has reported that inflammation in the gums has been associated with poor heart health.”

**Stressors and Mental Health Challenges**

Mental health challenges, such as depression and anxiety, are higher in women living with HIV, according to Dr. Weiss. “Those issues, combined with the stresses of managing their chronic disease as well as their personal and work relationships, keep many women from seeking preventive dental treatments.”
Oral health problems and unmet dental needs are common in women living with HIV, according to Dr. Weiss. For instance, antiretroviral therapy (ART) can decrease salivary flow, which hinders chewing and swallowing and increases the risk of dental caries.

“Many women also experience periodontal issues during times of change, such as pregnancy, menopause and aging,” Dr. Parish said. “By looking at women across the lifespan, we hope to gain a better understanding of the impact of those changes on mental health.”

Leveraging Previous Studies in Women with HIV

Dr. Weiss said the team of researchers will leverage data from two prior studies: STAR (Study of Treatment and Reproductive outcomes) in women of reproductive age, and MWCCS (MACS/WIHS Combined Cohort Study) in women living with HIV and at risk of HIV. “These are the largest cohort studies of women living with HIV, and they address the effect of HIV on health outcomes among young (STAR) and older (MWCCS) women in the U.S.,” Dr. Alcaide said.

“This study provides a unique opportunity to isolate the true relationships between HIV, oral health and mental health because of the existence of the comprehensive historical data on these women from the two prior studies,” Dr. Feaster said.

After reviewing the data, the team will recruit 400 women (200 in Miami and 200 in North Carolina) from the Southern states in both rural and urban communities. “This region is home to a highly diverse population of women who face some of the
greatest health disparities in the nation,” said Dr. Weiss.

Once the women have been recruited for the study, they will be given dental assessments, including their periodontal health, plaque, cavities and other oral conditions, said Dr. Parish.

Any women identified as having oral health issues will be referred to their dentist or to the Lindsey Hopkins Community Smiles dental clinic for care.

As part of their initial assessment, participants will fill out questionnaires regarding dental pain, and if their oral health is impacting their lives, such as causing difficulties in smiling, speaking or eating with others in social situations. The questionnaires will also cover mental and behavioral health issues, such as depression or anxiety, Dr. Weiss said.

Participants will return in a year for follow-up assessments and questionnaires to assess any changes in oral or mental health, as well as quality of life. “Results of our study can provide a foundation for programs targeting oral and mental health care, while shining a light on the many health disparities facing women living with HIV,” Dr. Weiss said.

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