



Working together to improve the health of Black women

- BWHS research on incontinence and periodontal disease
- BWHS randomized controlled trial of treatments for insomnia
 - Recent BWHS research on breast cancer
- BWHS mammography study

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NEWS FROM THE BWHS







Greetings to all. It has been a tough winter. People have coped with frigid weather, loss of heating, frozen pipes, snow, floods, fires, and other weather-related difficulties. A BWHS participant in the Virgin Islands told us she experienced two hurricanes in late fall. For all of you who have been coping with weather challenges, we hope that you are doing well now and that your area is on the road to recovery.

This newsletter describes new BWHS research areas—urinary incontinence (leakage of urine) and periodontal disease (infections of the gum), both of which can have serious health effects (page 3). Insomnia (difficulty falling asleep or staying asleep) leads to many health problems and occurs more commonly in Black women than other women. Based on answers to questions on the 2015 health survey, about 15% of BWHS participants may be suffering from insomnia. The BWHS will use an approach called a randomized controlled trial to test how well several insomnia treatments work in Black women (pages 4 and 5). A major BWHS research goal is to explain why Black women are affected more than other women by an aggressive subtype of breast cancer called estrogen receptor negative. On page 6, we report important BWHS findings that suggest a link between diabetes and increased risk of this subtype. Page 7 describes the BWHS mammography study, which began last year.

The 2017/2018 BWHS health update is in full swing. Please take 5 minutes to complete your 2017/2018 health survey and join the 33,000 BWHS participants who have already done so. Many thanks! Contact us if you need a paper copy or if you want to complete the form online but have questions on how to do that.

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NEW BWHS RESEARCH

Studying Incontinence and Periodontal Disease

Many health problems that do not affect the length of our lives do affect the quality of our lives. Dr. Yvette Cozier has begun to study one such health problem in the BWHS—urinary incontinence (leakage of urine). As women get older, urinary incontinence may become an increasing problem. Women who suffer from the condition can experience embarrassment and may even limit their activities so as to avoid being in a public place when leakage occurs. The condition has many costs associated with it, such as expenses for absorbent pads, mattress pads, and laundry. Some research suggests that Black women may be reluctant to seek medical advice for the condition. Questions on urinary incontinence were included on several BWHS questionnaires, including in 2011 and 2013. The BWHS study of urinary incontinence has two main goals: to identify factors that may be predictors of the condition, and to find out why Black women with the condition often do not seek medical care.

A second new area of study for Dr. Cozier is periodontal disease (gum infections and inflammation). Periodontal disease affects millions. often resulting in painful infections and tooth loss. Various BWHS surveys have asked about oral health, including gum infections and tooth loss. We assessed the accuracy of reporting of periodontal disease in the BWHS in a validation study conducted in 2014-2015. BWHS participants living within about an hour of the Boston University School of Dental Medicine were invited to come in for a free dental exam. and 77 did so. A comparison of their reporting of periodontal disease with



what the dentist saw in their mouths indicated that accuracy of reporting was satisfactory. Psychosocial factors will be of special interest as possible predictors of periodontal disease: negative psychosocial factors, such as experiences of racism or violence, might be related to increased risk, while potentially positive factors, like involvement in religious/spiritual practices, might decrease risk.

NEW BWHS RANDOMIZED CONTROLLED TRIAL

A **randomized controlled trial (RCT)** is a type of study that compares treatments against each other or a placebo. In an RCT to test whether a *new* treatment is better than the *usual* treatment, patients with a particular illness are assigned to *new* or *usual* treatment by a random method. For example, the researcher flips a coin for each patient—if the coin turns up heads, the patient is assigned to *new* treatment and if the coin turns up tails the patient is assigned to *usual* treatment. At the end of the trial, the cure or response rate in the two groups is compared. If the *new* treatment has a better cure or response rate, it will be considered better than *usual* treatment and may eventually make its way into medical practice, especially if additional RCTs get the same results. RCTs are the "gold standard" because random assignment of patients makes the study groups similar to each other, helping to ensure that the cure or response rates at the end of the RCT are due to the treatment itself rather than to other factors, such as severity of the illness.



Treatments for Insomnia

The *usual* treatment for insomnia is to provide written information about sleep hygiene—for example, a person with insomnia should not drink coffee near bedtime. *Usual* treatment sometimes helps to cure sleep problems but often it does not. Medications are a common treatment for insomnia, but they are often ineffective, have unwanted side effects, and are not an acceptable option for people who prefer not to take medications. Research has shown that the most effective way to treat insomnia is to *change the behaviors that lead to poor sleep*. Several sessions with a clinician trained in how to help patients change behaviors can effectively treat insomnia, but few clinicians are trained in these techniques, few people receive these treatments, and the sessions are costly and may not be covered by insurance. The internet, available to many more people than treatment for insomnia by a trained clinician, holds promise of being a way for people to obtain training that can change the behaviors that are causing poor sleep. We are very pleased to announce that the BWHS will conduct a three-year study to test internet-based treatments for insomnia!

RCT of Treatments for Insomnia in the BWHS

Overview. In the RCT to be conducted in the BWHS, three treatments for insomnia will be compared: a commonly used standard treatment and two online treatments. The BWHS investigators will spend the first year modifying an existing online treatment program to try to make it more relevant for Black women. Enrollment of participants who volunteer to be in the RCT will begin in the spring of 2019.

Eligibility. Participation will be open to BWHS participants who think they have insomnia, who wish to be in the RCT, and who have access both to the internet and to a tablet or computer. Those wishing to participate will fill out eligibility questions online. After informed consent, eligible women who wish to participate will be randomized into three groups: standard treatment, the existing online program, or the modified online program, with 100 women in each group.

What Will Happen in the RCT. At the beginning of their participation in the RCT, women in each of the three treatment groups will fill out questionnaires about their sleep. The treatments will occur in the next two months. The participants in all three treatment groups will fill out sleep questionnaires at the end of the two month treatment period, and then again six months later to see if any changes in sleep patterns have lasted. The sleep patterns of the three treatment groups will be compared once all participants have completed the trial to see which treatment group had the most success in lessening symptoms of insomnia. After a woman has completed her assigned treatment group, she will be able to try one of the other treatments if she wishes, but this will not count as part of the RCT.

Benefits of the BWHS RCT.

- This RCT has the potential to develop an effective and widely available treatment for many Black women suffering from insomnia.
- Effective treatment of insomnia can have an immediate impact on health, since insomnia leads to numerous serious health problems (such as depression).
- The RCT will demonstrate, once again, the need for studies specifically of Black women.
- The RCT will lay the groundwork for other RCTs in the BWHS to address serious health conditions.

BWHS RESEARCH RESULTS

Diabetes and Estrogen Receptor Negative Breast Cancer

Breast cancer occurs at about the same overall rate among LINK BOOK KNOWLEDGE BOOK FACTS ASK Black women as among White women in the U.S., but Black women have about twice the risk of developing the more aggressive subtype, called estrogen receptor negative (ER-) breast cancer. White women have a higher rate of estrogen receptor positive (ER+) breast cancer, which is less aggressive and easier to treat. The higher proportion of ER- breast cancer in Black women relative to White women contributes to the 40% higher mortality from breast cancer experienced by Black women compared to White women. It is therefore a priority in the BWHS to identify potential causes of ER- breast cancer.

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Evidence from a range of studies suggests that inflammation may lead to a higher occurrence of ER- breast cancer. Because type 2 diabetes (T2D), also known as adult onset diabetes, is associated with increased inflammation, T2D might increase the risk of developing ER- breast cancer. Using BWHS data collected from 1995 to 2014, Dr. Julie Palmer and her team identified 1,851 newly occurring cases of breast cancer, of which 468 were ER-; during that same time period, 6,694 women developed T2D. Data analyses indicated that women affected by T2D had a 43% greater risk of developing ER- breast cancer than women without T2D. In contrast, T2D had no influence on the risk of developing ER+ breast cancer. This last finding is in line with the inflammation hypothesis, since the occurrence of ER+ breast cancer is thought to be influenced mainly by hormonal factors rather than by inflammation. (Palmer et al. Cancer Res 2017; 77(22):6462)

T2D is twice as common among Black women as among White women. If confirmed, the BWHS results indicate that the high occurrence of T2D among Black women may be an important contributor to the greater occurrence of ER- in Black women, and that efforts to end the epidemic of T2D could help to decrease breast cancer incidence and mortality in Black women.

BWHS MAMMOGRAPHY STUDY

Dr. Kim Bertrand leads a BWHS study to identify features of the breast that can be viewed by mammography and may be good predictors of breast cancer in Black women. The study has been in progress for a year—perhaps you have been contacted about it. A feature called mammographic density (MD) has been found in studies of White women to predict higher breast cancer risk, but there has been little research about MD and other mammographic features among Black women. The BWHS study involves obtaining copies of screening mammograms of women who have undergone mammography in the last

ten years, the period when digital mam-

mograms (the mammogram is stored on a CD) came into common use. BWHS participants who have reported having a mammogram in the last ten years are

being asked for the name of the facility (or facilities) that conducted the mammography and to allow the BWHS to contact the facility to obtain copies of the mammograms. The BWHS maintains confidentiality by storing the mammograms in

encrypted files and removing names.

Mammography is no fun—it would be a great advance to make this uncomfortable procedure more useful by identifying the features that can lead to better predictions of who may be at higher risk of developing breast cancer in the future.



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