BLACK WOMEN’S HEALTH STUDY

INSIDE:
- The BWHS Examines Stress and Illness
- Health Recommendations
- New BWHS Cancer Research

www.bu.edu/bwhs
STUDYING STRESS IN THE BWHS

THIS NEWSLETTER focuses on BWHS studies of “stressors”—experiences that may evoke a stress response in the body. This “fight or flight response” has probably been present for thousands of years; for early humans, it was critical to survival. In the face of danger, the body produces chemicals that increase heart beat and blood flow, preparing the person to fight or to run away. This kind of response to short-term stress makes sense, even now. When we shout, “Don’t touch!” to a toddler who is near a hot stove, the child may become stressed for a few moments, but learns not to touch the stove. However, stresses that are present all or most of the time—chronic stresses—can have undesirable effects on physical and mental health. The BWHS is making important contributions by studying stressors in relation to a range of diseases that affect black women. This research will help explain how and why illness occurs and, we hope, provide strong evidence for public policies, programs, and laws that can help reduce stress in people’s lives.

THE 2013 HEALTH INFORMATION UPDATE

Once again, it’s time to update your health information with the BWHS. You may have received an email inviting you to fill out the 2013 health survey online, or a paper survey in the mail. Just think—your 20 minutes or so every two years has made more than 120 scientific papers possible from the BWHS, the most recent of which include results on breast cancer, sarcoidosis, weight change, and uterine fibroids (check them out at www.bu.edu/bwhs). Your help is crucial and very much appreciated by the National Institutes of Health (which funds the study); by the doctors and health practitioners who learn from the results; by the BWHS investigators and staff; and by future generations of black women who will benefit from the findings.

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BOSTON UNIVERSITY Medical Center Slone Epidemiology Center
WHAT ARE COMMON STRESSORS?

• Many African Americans experience racism in their daily lives, in housing, on the job, and in other areas.
• Millions of Americans are in demanding caregiving roles. Caregiving can be rewarding but can also be stressful if the caregiver does not receive support or relief. Family caregiving is more common among black women.
• Major depression is widespread and a leading cause of disability worldwide.
• African Americans are more likely than whites to live in stressful circumstances, such as in neighborhoods with high crime rates.
• On various health surveys, up to one-fourth of American women report some form of physical or sexual abuse during childhood. Large numbers of teenagers and adults are also affected.

WHAT CAN PROTECT AGAINST STRESS?

• The harmful effects of stress can be reduced by family and social support.
• Coping skills can lessen the harmful effects of stress (for example, getting help or emotional support, or working to change the situation).
• Religion, spirituality, and meditation may also reduce the harmful effects of stress.
• Exercise often reduces the stress response.

BWHS INFORMATION ON STRESSORS AND POSSIBLE PROTECTIVE FACTORS:

• In 1997 and 2009, the BWHS survey asked about experiences of racism in daily life, on the job, in housing, and by the police.
• The 1999 and 2009 surveys asked about feelings of depression or happiness.
• The 2001 survey asked you to list up to five important things that you do for your health.
• The 2005 survey asked about stress and coping, attending church, prayer, spirituality, and experiences of abuse.
• The 2011 survey asked about support from friends, family, and others. It also included questions on caregiving and how you rated your physical and mental health.
• Almost every survey asked about exercise.
BWHS RESULTS ON STRESS

REPRODUCTIVE OUTCOMES
- The first BWHS paper on the health effects of a stressor assessed racism and premature birth (Rosenberg et al., 2002). A higher risk of premature birth was associated with unfair treatment on the job and with people acting afraid of the participant. These results have been confirmed in later studies.
- BWHS participants with more frequent experiences of racial discrimination had a higher risk of developing uterine fibroids than women with fewer such experiences (Wise et al., 2007). The increase was smaller or nonexistent among women who were better able to cope—for example, those who often received support from a friend or who usually took action to improve situations.
- Mothers with a high level of depression before pregnancy had a higher risk of their babies being born prematurely (Phillips et al., 2010); other studies have found similar results for depression during pregnancy.
- BWHS participants who reported having been sexually abused as children got their periods at an earlier age than women who had not been abused (Wise et al., 2009). The same relationship has been found among white women.
- BWHS participants who reported abuse during childhood were more likely to develop uterine fibroids (Wise et al., 2012); the increase in risk was less among women with good coping skills. Similar results were found in a study of white nurses.

CANCER AND CANCER SCREENING
- The BWHS published the very first results on racism and the occurrence of breast cancer (Taylor et al., 2007). Among participants under age 50, women who reported frequent experiences of racism in daily life or in housing, on the job, and by police were more likely to develop breast cancer. No other study has reported on this issue. Stressors may contribute to inflammation, which in turn may increase the risk of some types of cancer.
- Being physically abused as an adult was associated with a higher risk of breast cancer (Wise et al., 2011). This is the first report of such a link and needs confirmation.
- BWHS participants with more frequent experiences of racism in daily life were slightly less likely to go for Pap smears, but just as likely as others to have a mammogram or colonoscopy (Mouton et al., 2010).
OBESITY AND METABOLIC DISORDERS

- There was no link between experiences of racism and high blood pressure except possibly among women born outside of the United States (Cozier et al., 2006).

- The incidence of high blood pressure among BWHS participants who lived in poorer neighborhoods was greater than that among women in wealthier areas (Cozier et al., 2007). This adds to evidence that health is affected by living conditions as well as by personal factors.

- Weight gain was greater among BWHS participants who most often experienced racism (Cozier et al., 2009). Experimental evidence has shown that stress can lead to weight gain.

- High levels of physical and sexual abuse during childhood were associated with higher risks of obesity (Boynton-Jarrett et al., 2012). The association was partly explained by health behaviors in adulthood, which might have been influenced by early abuse.

- Women who lived in poorer neighborhoods more often developed diabetes than women who lived in wealthier areas (Krishnan et al., 2010). Efforts to reduce diabetes incidence need to consider healthy and unhealthy aspects of neighborhoods.

OTHER RESULTS

- Experiences of racism were unrelated to death from all causes or from heart disease or cancer (Albert et al., 2010).

- Childhood abuse was associated with a higher risk of developing asthma as an adult (Coogan et al., 2012). This is believable because abuse has been linked with an increased risk of asthma in children. These associations may result from an effect of stress on the immune system.

- Participants who exercised the most were least likely to be depressed (Wise et al., 2006).

SUMMARY (see www.bu.edu/bwhs/research/publications for more details)

BWHS research indicates that stressors such as racism and childhood abuse are associated with negative health effects. In some cases, good coping skills are effective in lowering the risk. Future analyses will assess other conditions, other stressors, and protective factors.
HEALTHY EATING GUIDELINES

Today more than 12 million Americans are cancer survivors—about one of every 25 people. In 2012, the American Cancer Society issued new guidelines for healthy living, which are available at their website, www.cancer.org. A great deal of research shows that sticking to these guidelines lowers the risk of developing cancer, heart disease, diabetes, and many other illnesses. Now there is growing evidence that these guidelines will help the millions who have survived breast cancer, colon cancer, prostate cancer, and possibly other cancers to live longer, healthier lives.

The guidelines focus on maintaining a healthy weight and eating a diet low in saturated fat and high in fruits, vegetables, whole grains, and protein. Ways to achieve the dietary guidelines are to:

- Avoid or cut down on processed foods—any food that has 20 ingredients or more (and some have 100) should be viewed with suspicion.
- Fill your plate mostly with fruits and vegetables.
- Cut down on serving sizes.
- Limit high-calorie foods like sweets.
- Avoid drinks with added sugar.

RECOMMENDATIONS FOR PHYSICAL ACTIVITY

Many health organizations and experts have issued recommendations for physical activity; while their proposals vary, they all agree that exercise is essential to a healthy life. The U.S. Centers for Disease Control and Prevention (CDC) recommends that adults, including seniors, spend two and a half hours a week (150 minutes) doing moderate and vigorous activity and muscle strengthening (www.CDC.gov). How can most people fit exercise into their schedules? According to the CDC, even if you do 10 minutes at a time, that’s fine—it adds up, and 10 minutes every day would be about halfway to the goal of 150 minutes a week. Running, walking, aerobics, and dancing while watching TV are all good—start small and add when you can. As for muscle strengthening, you can lift weights, carry packages, garden, do yoga, or work out on machines at the gym—and the more you do, the stronger your muscles will become. Please let us know what works for you, family, and friends and how you fit your activities into your days.

Let us know if you have found ways to meet these recommendations and we will share your suggestions in future newsletters.
NEW CANCER RESEARCH IN THE BWHS

ENDOMETRIAL CANCER
The BWHS is leading an analysis of risk factors for endometrial cancer (cancer of the womb) in black women. The analysis is based on BWHS data and data from 10 other studies. Endometrial cancer is relatively rare and combining information from several studies provides large enough numbers of women affected with the diagnosis for clear results.

PANCREATIC CANCER
The BWHS is also leading an analysis of body size and pancreatic cancer in black women and men, based on data from the BWHS and five other large studies. This cancer, while rare, is an important cause of cancer death in African Americans, among whom it occurs more commonly than other ethnic groups, for unknown reasons. Because the cancer is often diagnosed at a late stage, pancreatic cancer survival rates are poor.

BREAST CANCER
Almost 2,000 women in the BWHS have been diagnosed with breast cancer, the most commonly occurring cancer in American women. New BWHS research will focus on factors that increase the chance of a longer, healthier life following diagnosis. Among the factors to be studied are dietary patterns, exercise, support from friends and family, and prayer and spirituality.