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Women Have Problems Sticking to Cardiac Rehab Programs
Gender gap must be closed, say investigators in the *Canadian Journal of Cardiology*

Philadelphia, PA, April 27, 2016 – Cardiovascular disease is a leading cause of disability globally. Participation in cardiac rehabilitation programs is associated with significantly lower death, but evidence suggests that women are significantly less likely to stick to a cardiac rehabilitation program than men, according to investigators writing in the *Canadian Journal of Cardiology*.

Cardiac rehabilitation programs offer patients structured exercise, education, counseling, and risk reduction strategies. On average, patients attend cardiac rehab sessions a couple of times a week for about four months, depending on the program. Although women might be in greater need of the secondary prevention offered through cardiac rehabilitation, they are significantly less likely to access it than men, despite the women-specific clinical practice guideline recommendations promoting their access to cardiac rehabilitation.

Investigators reviewed cardiac rehabilitation adherence among women and men by conducting a meta-analysis of published studies to determine whether a gender difference exists. They included 14 studies reporting data on 8,176 cardiac rehab participants (27.3% women).

“This is the first study to systematically and quantitatively review cardiac rehabilitation adherence in studies using a measure of prescribed sessions attended,” explained lead investigator Sherry L. Grace, PhD, of York University and University Health Network, Toronto, Canada.

Overall, patients adhered to two-thirds of prescribed session, but adherence was significantly lower among women than men. This gender difference persisted in high-quality studies, those that were undertaken in Canada, and that were more recently published (since 2010).

“It used to be thought that patients only adhered to half of prescribed sessions, but our findings suggest patients adhere to over two-thirds” stated Prof. Grace. “Nevertheless, given each additional cardiac rehabilitation session attended is associated with lower death, it is concerning that patients don’t adhere more, and that women adhered to fewer sessions than men. Proven strategies to promote cardiac rehab adherence such as giving patients tailored advice, as well as teaching exercise planning skills, and self-

monitoring, such as with an exercise log or activity tracker in a smartphone, need to be tested among women.”

In an accompanying editorial, Tara L. Sedlak, MD, and Karin H. Humphries, DSc, of the University of British Columbia, Vancouver, Canada, commented that “there are many benefits to cardiac rehabilitation including reduced morbidity and mortality, improved functional status, improved quality of life, and cost savings for society and the economy. The benefits appear similar in men and women, with some studies suggesting greater mortality reduction in women compared to men, particularly in those with good program adherence. Unfortunately, despite the well-known benefits of cardiac rehabilitation, referral and enrollment rates are low, particularly in women. This paper reiterates that women are also less likely to stick to the sessions.”

“The gender gap must be closed to reverse the paradox of greater adverse outcomes in women with lower use of proven beneficial services such as cardiac rehabilitation,” they continued. “Cardiac rehabilitation needs to be viewed as a component of evidence-based care - 40 mg of atorvastatin daily for three months; cardiac rehabilitation three times a week for 24 weeks.”

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NOTES FOR EDITORS

“Sex Differences in Cardiac Rehabilitation Adherence: A Metaanalysis,” by Eric D Oosenbrug, MA; Raquel P Marinho, MA; Jie Zhang, MA; Susan Marzolini, PhD; Tracey J Colella, PhD; and Sherry L. Grace, PhD (DOI: <http://dx.doi.org/10.1016/j.cjca.2016.01.036>).

Editorial: “Cardiac Rehabilitation Adherence: Another Gender-Treatment Paradox,” by Tara L Sedlak, MD and Karin Humphries, DSc (DOI: <http://dx.doi.org/10.1016/j.cjca.2015.12.032>).

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Full text of this article and editorial is available to credentialed journalists upon request. Contact Eileen Leahy at +1 732-238-3628 or cjcmmedia@elsevier.com to obtain copies. Journalists who wish to speak with Prof. Grace should contact Gloria Suhasini, York University Media Relations, at +1 416-736-2100 ext 22094 or suhasini@yorku.ca. Journalists who would like to reach the editorial’s authors for comment should contact Dr. Sedlak at Tara.Sedlak@vch.ca.

ABOUT THE CANADIAN JOURNAL OF CARDIOLOGY

The *Canadian Journal of Cardiology* (www.onlinecjc.ca) is the official journal of the Canadian Cardiovascular Society (www.ccs.ca). It is a vehicle for the international dissemination of new knowledge in cardiology and cardiovascular science, particularly serving as a major venue for the results of Canadian cardiovascular research and Society guidelines. The journal publishes original reports of clinical and basic research relevant to cardiovascular medicine as well as editorials, review articles, case reports, and papers on health outcomes, policy research, ethics, medical history, and political issues affecting practice.

ABOUT THE EDITOR-IN-CHIEF

Editor-in-Chief Stanley Nattel, MD, is Paul-David Chair in Cardiovascular Electrophysiology and Professor of Medicine at the University of Montreal and Director of the Electrophysiology Research Program at the Montreal Heart Institute Research Center.

ABOUT THE CANADIAN CARDIOVASCULAR SOCIETY

The Canadian Cardiovascular Society is the professional association for Canadian cardiovascular physicians and scientists working to promote cardiovascular health and care through knowledge translation, professional development, and leadership in health policy. The CCS provides programs and services to its 1900+ members and others in the cardiovascular community, including guidelines for cardiovascular care, the annual Canadian Cardiovascular Congress, and, with the Canadian Cardiovascular Academy, programs for trainees. More information about the CCS and its activities can be found at www.ccs.ca.

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