

Cardiovascular Care for Women

A discussion with Roxana Mehran, MD, about Women in Innovations (WIN), a worldwide group of cardiologists focused on improving the medical approach to women with cardiovascular disease and promoting the professional development of women in the field of interventional cardiology.



What can you tell us about Women in Innovations (WIN), from its inception to its current focus?

WIN is a group that Dr. Alaide Chieffo and I dreamt up about 3 years ago. At the time, we were discussing how few women there were in interventional cardiology and how troubling it was that such a small percentage of the women in this field had access to the opportunities that had been so important in shaping our own careers. We asked ourselves if it was possible for us to set up an organization or initiative that could focus on increasing the role of women in interventional cardiology. We came up with the concept of Women in Innovations—WIN—because innovation is at the heart of interventional cardiology, and we believed that women could participate in the innovation process in a pivotal way, but that they need mentorship and a vehicle to reach these goals. The Society for Cardiovascular Angiography and Interventions (SCAI) was gracious enough to enlist Dr. Bonnie Weiner (its president at the time), and she was enthusiastic and supportive about developing WIN as an opportunity for SCAI to support women in interventional cardiology.

WIN has a three-pronged focus: we want to create (1) a place where questions can be answered for women in interventional cardiology, particularly regarding jobs, academic enhancement, improving skills, radiation exposure, pregnancy, motherhood, etc.; (2) a vehicle for mentorship programs for women in the field so that they can benefit from increased opportunities for education and professional development; and most importantly; and (3) an educational setting in which more women can be included in clinical trials, which will improve our ability to treat women with cardiovascular disease. The majority of data from clinical trials are based on a population of mostly male participants, and as a result, women are

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being treated according to data based on men. Therefore, it is not surprising that women's outcomes are significantly worse than men's after treatment. What is surprising is that so little is being done to close this gap.

To begin addressing this imbalance, we recently published a white paper titled “Gender-based issues in interventional cardiology: a consensus statement from the Women in Innovations (WIN) Initiative,” which was simultaneously published by *Catheterization and Cardiovascular Interventions*, *EuroIntervention*, and *Revista Española de Cardiología* and will be published soon in other international journals as well. Our report highlights significant disparities in women's treatment and outcomes. As previously mentioned, one suspected reason for this disparity is that women account for only 20% to 25% of patients enrolled in most cardiovascular disease (CVD) clinical trials. In addition to an absence of female participants in clinical trials, the WIN report suggests a lack of recognition of heart problems, which delays subsequent treatment. Although the current evidence-based guidelines for cardiovascular care recommend that men and women should receive the same treatment, the WIN report cites data from studies that show that women with unstable angina are less likely to be prescribed aspirin or lipid-lowering therapy (statins) while in the hospital and during hospital discharge. Additionally, the report notes that when presenting with heart attack symptoms, women often are less likely than men to have an electrocardiogram done within 10 minutes of presen-

tation, to be cared for by a cardiologist during their inpatient admission, and to be given heparin or an angiotensin-converting enzyme inhibitor acutely. Our plan now is to address the issues identified in the report by facilitating women's enrollment in clinical trials to further explore the differences in women's outcomes with heart disease. Additionally, we plan to enhance resources for health care providers who treat women with heart disease.

Who are the members of WIN?

We want our membership to include more specialties than interventional cardiology alone, and our goal is to have at least 30% of members be men. We believe that if we had a bias toward keeping it only about gender differences and gender-based issues, we would be limited.

What are some of the goals for WIN in 2010?

We have multiple goals this year. We want to expand membership by extending international membership opportunities and establishing global ambassador programs, leading several countries through meetings with roundtable discussions, and developing symposia that focus on many issues but especially on gender-based differences in treatment and outcomes. WIN will also be represented in many national and international congresses, conventions, and programs around the world. We are in talks with the Latin American Society of Interventional Cardiology, the European Society of Interventional Cardiology, the World Congress, and groups in China and Korea, and we plan to have representation at each of these groups' annual meetings.

Our educational focus is extremely important. We want to launch a series of benchmarking programs and projects. WIN will have a program that not only educates regarding gender bias, but there will also be an interesting program with data about women from many of the largest clinical trials. Our research and publication group is also important. We have a group dedicated to working on radiation safety information for women in interventional cardiology because currently, there is no standardized radiation safety program for interventionists who become pregnant. Standardizing this will be extremely important.

We want to strengthen our partnership with the Food and Drug Administration and the National Heart, Lung, and Blood Institute and get their input in designing trials that will include more women. We are asking trialists to consider including more women in their clinical trials and ensuring that the trial questions can be answered for women as well as men. The major goal on

the research side is to increase the number of women in trials, which typically ranges from 20% to 25% up to 30% to 35%. Our ultimate goal is to see 40% enrollment of women, so that we can have real answers for questions regarding women and vascular disease. We also want to publish an outcome matrix from benchmarking projects.

We also have another important strategic integration: we want to engage more male members. We want to steer away from only incorporating topics aimed at female interventionists and develop interesting programs that would incorporate male and female faculty and generate interest from all the interventional specialties. We could then sandwich in some outcome data on the female population and better educate the public at large. We have a lot of goals for 2010, and we are well under way in accomplishing them.

What is being done to increase awareness about the prevalence of CVD in women?

The initiative for awareness begins with the WINHeart Survey, and we have some very important fact sheets. We are also expanding this survey through our European colleagues to European interventional cardiologists. We know that women are less likely than men to enroll in clinical trials. It may very well have to do with the fact that women feel as though anything that could take away from their daily life could be detrimental to their family and the caretaking they need to do apart from caring for themselves. They are concerned about logistical issues, such as transportation, finances, time, etc. Additionally, 90% of women said that their physicians did not even mention that there was a trial that they could enroll in when they were diagnosed with CVD. We don't know why such a barrier exists in informing women about trials.

A lot of good work is being done by the American Heart Association, which I think is phenomenal. February was American Heart Month, and it is quite important that we keep raising awareness because there are still many limitations for women to be included in clinical trials. We think that is important to overcome.

What are some of the myths about women and CVD? About women and percutaneous coronary intervention (PCI)? How can WIN help to debunk those myths?

There is a big misconception about women patients, even from the time of diagnosis, perhaps because of some of the presentation differences. The way CVD is pronounced in women is different than it is in men; for example, they may not present with the typical chest

pain. Women can present with more vague symptoms, and therefore, their disease may not be recognized or may be misdiagnosed. It is crucial that we understand the differences, are able to make a speedy diagnosis, and treat women in a timely fashion. One of the most important distinctions we see in the PCI population is that by the time women present to the catheterization laboratory for angioplasty, they are much older and have further advanced diabetes and/or hypertension than their male counterparts. This may be one of the reasons women have higher complications and worse outcomes in certain settings. We need to intervene at a much earlier stage, and that is the big dilemma. How do we do that? The first step is to educate more physicians and emphasize the importance of talking to their patients about CVD and treatment options. We want to figure out ways to decrease complication rates—specifically the bleeding complication rates after PCI. In addition, we believe that women may have a different response to antiplatelet agents. This is a very essential area that we need to focus on to better understand the outcomes of women.

How does treating CVD in women differ around the world (if at all)?

There is a disparity in how CVD is diagnosed in men and in women in the United States and across different nations. We need to reach out globally. We have very little data on the outcomes of women in third world nations. Most of the time, these women are not even part of clinical trials. We need to ensure that they are being represented, and when they are, that they are not misrepresented. The global reach of WIN is extremely important in improving health care and outcomes in women worldwide.

Has there been an increase in the number of female cardiologists in the field of vascular medicine? What can you tell us about their success, and what needs to be done to ensure that their role in the field continues to grow?

We know that there are more female medical students now than there were 10 years ago, so that is exciting and encouraging. The field of cardiology is a difficult one for a female physician. A lot of the difficulty has to do with the commitment of time, the effort involved in further training, and the little return on their investment of time and effort. There are fewer and fewer women who will become interested in the field of cardiology if we do not meet the needs of incoming female cardiologists. There are ongoing efforts by the American College of Cardiology to continue generating interest in

women entering the field. The hurdle we then have is even greater because women must first make the decision to practice cardiology and then decide to specialize in interventional cardiology with additional training that entails up to 2 more years.

Of course, the fact that there is radiation exposure during the childbearing years in the field of interventional cardiology is an extreme negative for women who want to enter the specialty. Therefore, the radiation safety paper is one of our highest priorities to ensure that we understand what those exposure issues are and standardize the way the woman and fetus are protected during procedures that involve radiation exposure. Through WIN, we want to develop some guidelines so that if a woman does become interested in interventional cardiology, there is a place for her to go. When I was pregnant, there was no definitive answer to what I should do, and there isn't a week that goes by that a female student, resident, or fellow doesn't ask me about this exact question and how I overcame it.

Mentorship is also extremely important. Those platforms don't exist for all women in this field, but I believe that through WIN, we will be able to help others who are interested but do not have the opportunity. Our plan is to pair up young female investigators with established leaders in the field.

Finally, the entire WIN initiative needed a platform for support and growth. SCAI has committed the full support of its board to this initiative—I have never been so impressed. There is complete commitment on their part to bring this to fruition. The SCAI president, Dr. Steven Bailey, is behind us 100%, the Board of Trustees is excited about the program, and I know it will be successful.

The mentorship program needs a lot of support. We need our prominent male and female SCAI fellows and members to be mentors for early female investigators. Mentorship has to come from someone who is an excellent role model and who is fully devoted to the task—male or female. Mentorship is an essential aspect of success for everyone, but perhaps it is especially important to women because they need a little more direction with the crucial choices they have to make to balance a strong career and family life. ■

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