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Influence of age, gender, and race on depression in heart failure patients.

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Depression in Older Adults With Heart Failure

We read with great interest the study by Gottlieb et al. (1), which examined an important area in heart failure (HF) management: depression. The investigators observed that for every 10 years above the mean age (64 years), “the likelihood of exhibiting depressive symptoms decreased by 26%.” This is surprising as depression is rather common in old age. About 20% of the U.S. population 65 years and older suffer from depression, compared with 7% in younger adults (2,3).

Many of these older adults suffer from subsyndromal or atypical depression, which is much more common in old age, more difficult to diagnose, and is as distressing and disabling as major depression (2–4). The vast majority of HF patients are 65 years or older, many have preserved systolic function, and they receive care from generalist physicians in nonacademic settings. The results of this interesting study of depression in relatively younger male HF patient with systolic dysfunction receiving care from a cardiology clinic in an academic setting may not be generalizable to most HF patients.

Focusing on “relatively young” patients may not be the most efficient way to screen depression in HF, and certainly not in older adults. In addition, use of the Geriatric Depression Scale, instead of the Structured Clinical Interview described in the Diagnostic and Statistical Manual of Mental Disorders, 3rd edition–Revised (DSM–III–R) or other diagnostic tools such as Beck Depression Inventory, is more likely to identify depression in older adults (5).

Finally, care settings also likely have significant implications for appropriate diagnosis and management of depression in older adults with HF. Older adults with HF should preferably receive primary care from a generalist physician, in consultation with a cardiologist (6). The American College of Cardiology/American Heart Association guidelines for chronic HF has identified this collaborative model as the most preferred model for HF management (7).

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Influence of Age, Gender, and Race on Depression in Heart Failure Patients

We applaud Gottlieb and colleagues for devoting attention to depression and quality of life in heart failure (HF) patients (1). We are concerned, however, with the investigators’ use of: 1) the Beck Depression Inventory (BDI) (2) as a sole measure of depression, 2) the Medical Outcomes Study, Short Form Health Survey-36 (SF-36) (3) as a measure of quality of life in HF patients.

Although there is precedent for using the BDI to screen for depression in HF patients (4,5), we are concerned that the BDI may be inadequate as a single index of depression in this medically ill population. Because the BDI was not designed to diagnose or assess depression in medically ill patient samples, fully one-third of the scale’s items are somatic in focus, assessing fatigue, appetite, libido, sleep habits, somatic worry, functional ability, and weight change—all symptoms consistent with HF. Previous studies of major depression in HF have used the BDI as a screening instrument before using a diagnostic interview such as the Diagnostic Interview Survey (DIS) (6) to diagnose major depression (4,5). Without a diagnostic interview for depression and/or a concurrent, nonsomatic measure of depression (e.g., the Hospital Anxiety and Depression Scale) (7), using only the BDI to assess depression poses a potential threat to construct validity in these symptomatic HF patients. In their study, Gottlieb et al. (1) further operationalized depression as a BDI score ≥10. Whereas Beck et al. (2) categorize BDI scores of 4 to 10 as normal, and scores of 11 to 16 as indicative of mild depression, these cut-off points represent norms established in a nonmedically ill population. Thus, classifying stage II to IV HF patients with BDI scores ≥10 as depressed, in the absence of a secondary diagnostic or nonsomatic measure of depression, may potentially serve to overestimate the prevalence of depression in this, by definition, symptomatic sample.
Additionally, the SF-36 used by the researchers as an index of quality of life is, like the BDI, comprised of both mood and somatic items. The investigators report a significant correlation between the BDI and the SF-36; thus, they conclude that depression is associated with lower quality of life in HF patients. The overlapping domain items in the BDI and SF-36, however, may potentially confound this correlation, as the statistical association might, at least in part, reflect the degree to which the scales themselves correlate.

Depression and quality of life in patients with HF are significant public health issues that clearly warrant further investigation. As scientists, we must successfully grapple with the thorny issues of construct and scale validity within this population (e.g., “what is the nature of depression in HF?” “what is a validated measure of depression in HF?”) if our research is to advance both the science and the standard of care for HF.

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REPLY

We agree with the comments of Dr. Fauchier regarding our recent study (1) suggesting that many factors influence the prevalence of depression in patients with congestive heart failure (HF). However, it should not be assumed that a patient with a longer duration of symptoms is more likely to be depressed. It is just as likely that patients may become more adjusted to their situation, resulting in less depressive symptoms. Although it is difficult to determine duration of symptoms reliably, we did not attempt to do so; thus, we encourage others to test these hypotheses.

As indicated by our previous study referenced by Dr. Fauchier, we believe that defibrillators (ICDs) may have important psychological consequences (2). Because more ICDs are likely to be implanted owing to the SCD–HeFT study (3), it is crucial to understand their psychological impact. For this reason, we obtained and are analyzing data from a substudy of SCD–HeFT addressing this issue.

We also agree with Dr. Ahmed that a collaborative model of treatment should be used in all patients with congestive HF. It is thus important that primary care physicians (including gerontologists) understand that patients who are still symptomatic despite treatment should be referred to a specialist in HF regardless of the patient’s age.

One can debate Dr. Ahmed’s assertion that depression is more common in the elderly; the data he references suggest that major depression is less common, whereas “minor” depressive symptoms may be more common (4,5). The current study involved many patients under age 65 years, dictating use of an instrument appropriate for a broad age range. However, we do not consider determination of the exact prevalence of depression in various groups as the important result of our study. Rather, our findings emphasize the difference in patterns of depression between patients with severe HF and the general population. Furthermore, we demonstrated (in the wide range of patients studied) that depression, as quantified by standard questionnaires, was extremely common in all groups. In our sample, 53% of those under age 65 years and 43% of those age 65 years and older reported symptoms of depression.

As Dr. Freudenberger and colleagues are well aware, the interaction of depression and symptoms of HF is complex; three of the co-authors of our manuscript (S.S.G., M.L.F., S.R.) co-authored a publication with two of them (R.F., C.S.), which demonstrated that patients with depression believe themselves to be more ill even when there are no objective criteria supporting this perception (6). Furthermore, as Dr. Ahmed’s letter points out, diagnosis of depression is affected by many variables, including age, gender, and race. Indeed, any diagnosis of depression is, by definition, arbitrary. Thus, determination of the exact prevalence of depression can be debated ad nauseam, leading to obfuscation of the important points: depression is common and diagnosis may be impacted by various demographic factors. Although it is unreasonable to expect all patients with HF to be screened by psychiatrists, the Beck-Depression Inventory (BDI) is an excellent screening tool, and awareness of the prevalence of depression can lead to treatment and improved quality of life.

Dr. Freudenberger and colleagues are of course correct that physical components of the scales might be influenced by the physical limitations of HF. It is for this reason that we reported the various subscales of both the Minnesota Living With Heart Failure (MLWHF) and SF-36 questionnaires. Both the emotional and physical subscales of the MLWHF (a disease-specific quality-of-life questionnaire) exhibited extremely close correlations with the BDI. Similarly, various components of the SF-36, including those not influenced by physical limitations, strongly correlated with the BDI.

Depression may contribute to symptoms in any HF patient. Treatment efficacy will probably vary based upon age, gender, race or other factors, and these variables need to be assessed when intervention trials are performed. We now know, however, that consideration of the possible impact of depression upon symptoms is essential for all patients with HF.

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