Acute and chronic mental health disorders and conditions can be prevalent in cardiac rehabilitation (CR) settings affecting 10% of patients (1). In fact, researchers argue that the association between mental health disorders such as depression and coronary heart disease (CHD) is bidirectional, with CHD patients at increased risk for depression as well as depressed individuals at increased risk for subsequent CHD (2). Several contributing factors have been attributed to a high proportion of patients with depression including the traumatic nature of cardiac events, symptoms, adverse side effects of treatments, and medication, as well as fear of not recovering fully (2). As a result, the American College of Cardiology and the American Heart Association recommend stress management education and counseling as well as assessment of patient’s mental health. In fact, some sort of stress management and/or counseling is offered in the majority of CR programs (2) with positive outcomes generally observed after participation in CR (2). In addition, psychosocial factors such as the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR) and the American Heart Association (AHA) recommend the assessment of CR patients’ mental health and the importance of measuring outcomes within and outside of the clinical context to include assessment of psychosocial parameters. For example, Airaksinen and colleagues (3) examined over 200 patients and reported a 47% prevalence of depression symptoms as well as the five-year mortality rates among CR patients with and without depression that clinical participation in CR. The findings were complicated with a 80% reduction in the prevalence of depressive symptoms and over a 70% reduction in five-year mortality among CR patients compared to controls without CR. Additionally, both reductions were complicated with increase in fitness levels with both patients increase in fitness associated with reductions in depression and mortality. The question of “how best” to measure psychosocial outcomes remains a contentious issue among researchers and providers relative to what tools to use, for whom, and at what time. All of these factors can impact and confound actual results of CR programs. For example, Knight and colleagues (4) argue that psychosocial variables are assessed among 14 quality indicators such as the number of CHD risk factors, exercise capacity, and subjective health with the latter addressing mental health as a component. Here and colleagues (5) validated the Cardiac Depression Scale among CHD patients and found that results were highly correlated with the Beck Depression Scale. A similar and specific approach versus a generalized more holistic approach are both associated with gathering accurate data among CR patients. The timing of these questionnaires is also a factor given the variability among patients and their conditions. For example, a patient who recently suffered a myocardial infarction (MI) might not feel as uncomfortable as a patient who has been diagnosed with depression for a year. Additionally, CR professionals argue that establishing trust between patients and skilled health professionals is also a factor that can impact how patients respond on psychosocial questionnaires. A common test used to evaluate depression levels in clinical settings is the Beck Depression Inventory (BDI). The BDI is a 21 item questionnaire with each question subject to a scale of 0-3. Overall scores range from 0-63. Zero represents very mild depression, 10 to 18 indicates mild to moderate depression, 19 to 29 indicates moderate to severe depression and 30 or higher indicates severe depression (5). Ferrans & Powers (6) developed a 64 item questionnaire, known in nature that addresses satisfaction with health, family, work, peer support, recreation, and additional variables. Validated and compared to other commonly used questionnaires, some researchers argue that it is a holistic and broad view of overall health is optimal for outcomes measurement in CR (7). Given that the choice and timing of psychosocial assessments are not always under the direct control of CR professionals or departments, when facilities modify the approach, a comparative assessment is warranted and can assist with subsequent evaluations.

Conclusions
Assessing psychosocial variables remains a matter of priority in CR patient assessment. Given the complex nature of depression, anxiety, and mental disorders, observations in this study suggest closer monitoring of CR professionals and not only the type of assessment used but the timing of these assessments. Given the conflicting and increasing evidence and observed associations between depression and mortality among CR patients, further research is indicated to better understand the nature of these associations and help clinicians address the impact of depression and associated mortality in this population.