Healthy lifestyle behaviors after coronary bypass surgery: What about cardiac rehabilitation?

Dear Editor,

I read the article written by Alkan et al.[1] titled "Assessment of healthy lifestyle behaviors after coronary bypass surgery." Such descriptive studies are important for planning interventional studies and making appropriate policies in the future. However, I have some concerns about this study. This letter may help the authors eliminate some of these concerns.

First, the main instrument of the study is the Health-Promoting Lifestyle Profile questionnaire. I saw no information about this form in the manuscript. A brief description would be very useful for readers. For example, it is hard to understand whether higher scores are good or bad based on what is provided in the manuscript. At least the meaning of the scores, including which values are deserving of special attention, should have been mentioned.

Second, in the statistical analysis section, it is mentioned that "variables with normal distribution were compared using…" There is no information about what was used to compare variables with abnormal distribution. Usually, the Mann-Whitney U test is preferred in such comparisons.

Third, I give special importance to patient education. Discharge education is an important factor in patient compliance. Table 1 used the term "partly sufficient" in the education section. I couldn't comprehend what was meant by "partly sufficient." The authors might like to provide some definition of this phrase.

Fourth, and most importantly, there is no mention of rehabilitation for these patients, either in the introduction or in the discussion. Cardiac rehabilitation is the combination of promoting various lifestyle changes, including exercise, and incorporating education, a psychosocial approach, and risk factor modification in an integrated fashion. Although there is no specific study addressing the benefits of cardiac rehabilitation after coronary bypass surgery,[2] data extrapolated from other studies support the use of cardiac rehabilitation after coronary bypass surgery in cases with a class I or IIa indication. I could not determine if it was recommended that these patients attend a cardiac rehabilitation unit.

I hope very much to be informed about these concerns.

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Authors reply

Dear Editor,

We would like to thank the reader for the comments and interest in our manuscript.

First, I would like to mention that there is a brief description of the Health-Promoting Lifestyle Profile scale in the methods section. The low and high scores of the full scale were also mentioned in the same section. Subscales of the form were also included, and the source of the validity and reliability of the Turkish version was provided.

The scale was first created by Walker in 1987. In 1996, it was revised and renamed the Healthy Lifestyle Behaviors Scale II. The scale consists of 52 items and 6 subscales. These 6 subscales consist of health responsibility (9 items), physical activity (8 items), nutrition (9 items), spiritual development (9 items), interpersonal relations (9 items), and stress management (8 items). All of the items are positive statements that are evaluated and scored never (1) to regularly (4). For the full scale, the lowest possible score is 52 and the highest score is 208. A high total score means that the individual has a high level of health-promoting behavior and achievement.[1,2] In our study, we only discussed factors that affected the total score. We included the items from the subscales that were most answered.

Second, we did not include an explanation regarding comparison of variables with an abnormal distribution in the statistical analysis section because a nonparametric test was not required in this study. The data examined demonstrated normal distribution.

Third, the term "partially sufficient" is based purely on the subjective assessment of the patients. Training is provided to patients before discharge, but patients sometimes do not feel that it is fully adequate. For example, the patient may be advised to diet. The proper contents of this diet may be explained, but it may not be sufficiently explained why this diet and adherence to the diet are important. For this reason, patients may not maintain the recommended diet. In our clinical experience, we have encountered reactions such as "I have the diet, but I do not know why this diet is important and I do not know what will happen if I do not observe the diet." Of course, we cannot generalize in such a situation; however, this is why we included a section termed partially sufficient.

Fourth, we did not include in a cardiac rehabilitation section as we focused on what factors affected patients' post-discharge healthy lifestyle behaviors. The patients were already involved in a regular program with cardiac rehabilitation. However, in situations where there is no cardiac rehabilitation program available, it is important for patients to develop a healthy lifestyle for themselves at home. If obstacles to healthy lifestyle behaviors are determined, it will be helpful to the planning of patient follow-up and training. This was our main goal.

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Vitamin D level and endothelial dysfunction

Dear Editor,

We read the article published by Akkuş et al. about the relationship between vitamin D level, spontaneous reperfusion, and Synergy between PCI with Taxus and Cardiac Surgery (SYNTAX) score in patients with acute myocardial infarction with ST-segment elevation (STEMI) with great interest. The presence of chronic liver or kidney disease, and the use of medications such as vitamin D, calcium supplements, or corticosteroids, which can affect vitamin D level, were defined as exclusion criteria. It was concluded that a lower vitamin D level may be negatively correlated with spontaneous reperfusion.[1]

There are several studies suggesting an association between obesity and vitamin D deficiency. Adipocytes have vitamin D receptors, and vitamin D deficiency induces the differentiation of preadipocytes into adipocytes and accelerates adipogenesis. In addition, an increased level of parathyroid hormone as a consequence of vitamin D deficiency leads increased calcium inflow to the adipocytes. This process also results in adipogenesis. As a fat-soluble vitamin, vitamin D is stored in adipose tissue and the serum level of vitamin D is lower in obese patients. It has also been demonstrated that weight loss is associated with an increase in the level of vitamin D.[2] Obesity is associated with accelerated atherosclerosis, dyslipidemia, endothelial dysfunction, and a prothrombotic state.[3] Therefore, we think that the body mass index of patients should be evaluated as a factor in both vitamin D level and endothelial dysfunction.

Drugs such as statins and angiotensin-converting enzyme (ACE) inhibitors also play a role in vitamin D level. Statin use increases the vitamin D level, and an increased vitamin D level can be responsible for some pleiotropic effects of statins. Yavuz et al.[4] reported that rosuvastatin use was associated with an increase in vitamin D level. ACE inhibitors are frequently used medications in patients with hypertension, diabetes, and