

Reviewer's report

Title: Low carbohydrate diets in family practice: what can we learn from an internet-based support group

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Reviewer: Robert Mikelonis

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General

My review of the manuscript, "Low carbohydrate diets in family practice: What can we learn from an Internet-based support group?"

I feel I am well qualified to review this paper as I am a family practitioner who has advocated low carb diets to some of my patients. I am also familiar with the Active Low-carber Forum.

I strongly agree with the author's comments about the difficulty practicing physicians have in recommending low carb diets to their patients. Randomized studies have only recently been done, they are generally short term and include relatively small numbers of patients. Additionally, diet studies are somewhat unreliable in free living study populations.

I admit a degree of reluctance to recommend the Atkins diet to patients who would surely (in my opinion) benefit from it, due to heavy criticism of the diet in the media and in most professional medical and nutrition publications.

If it is true that the diet could potentially be harmful, am I exposing myself to any liability in recommending the diet be if the patient goes on to develop significant medical problems?

This paper presents a strategy for family practitioners to be able to recommend a diet which apparently has worked for thousands of people who are members of this online forum, and the diet they consume in most cases is not particularly radical in any way. Also, the authors state that, based upon study after study, "the continued emphasis on reduction in fat can no longer be considered part of scientific knowledge." This is a very powerful and telling message, and it rings true to anyone who has read the scientific literature and observed what is apparent in the world around them.

I would like to review the specific points that the editors wish to assess.

1) Is the question posed by the authors new and well defined?

In the Introduction section the authors appear to propose 3 hypotheses:

A. Little is known about what followers of the Atkins diet actually consume.

B. A. "human perspective" is missing in most nutritional literature.

C. A survey of an online support group has advantages and unique characteristics which can help answer questions A and B.

As far as I know, these questions are new. I have not seen any surveys of online support groups advocating any particular diet.

Question A is the main point of the paper, and the authors find that long-term followers of the Atkins diet primarily increased their consumption of salad greens (greatly increased 53%) and green vegetables (greatly increased 47%). The popular misconception may be true, to a lesser extent, that a primary dietary change is greatly increased consumption of beef (20%), butter (21%), and bacon (20%). Actually these dieters greatly increased their consumption of chicken (32%), and fish (24%), to a greater degree, and olive oil (20%) to an equal degree.

Taken as a whole, advocating a diet in which the patient is advised to greatly increase their consumption of salad greens, green vegetables, chicken and fish, and to cut back on high glycemic carbohydrates, should be within the comfort zone of any family doctor and even any nutritionist. The authors state that the name "Atkins diet" is applied to most versions of any low-carb diet and it is "quite flexible and individual practitioners can guide patients or design individual plans," no matter what one would like to call them. And the authors claimed that physicians do appear to be already following this practice. They found that most physicians who were consulted by forum members were either supportive of the diet or neutral, and only 6% were discouraging.

Concerning question B, a "human perspective" to low-carb dieting, the authors received over 1000 responses to the final survey question which asked for "any additional comments," but details or even general categories of those comments are not listed. These comments apparently provide a "remarkable insight into actual behavior of low carbohydrate dieters," but I guess we have to take the authors word about that.

Concerning question C, about the unique characteristics and advantages of a survey of an online support group, the authors espouse some ideas which on the surface make sense, but are really only their ideas and are not referenced in any way. They propose "less bias" in an online support group, and a "certain level of seriousness." This would certainly be difficult to prove. I personally follow this forum and I have observed a lot of self-policing by influential forum members against any negative opinions of low carb diets. But there is a general tendency to listen to any well-reasoned argument, and also a large tendency to ask for scientific evidence to support these arguments, probably to a greater degree than I find in discussions with my medical colleagues. Most regular posters to this forum are very serious indeed.

The authors attempt to quantify the "personal and emotional elements that bears on compliance" which is "salient in the forum," by exploring the perceptions of the respondents to the survey. This is obviously a difficult assignment, and only about 20% of the survey questions deal with personal and emotional factors. The degree to which they are successful is debatable.

Concerning editorial point # 2, are the methods appropriate and well described, and are sufficient details provided to replicate the work?

I really don't feel qualified to assess the methods described. I'm not familiar with the UCCASS system. The cutoff date seems arbitrary, but it may show that the survey was not sabotaged by outside groups. The filters used seem reasonable and proved to be informative, but the internal controls are questionable as reported by the authors.

I do have one problem with the methods, however. One statement the authors make in the instructions to the survey, "Carbohydrate restriction continues to be of importance as a method of weight reduction and treatment for diseases such as diabetes and cardiovascular disease," appears to be revealing of their bias and also seems to be an attempt to play to the audience, and might be claimed to influence the answers given by the respondents.

Sufficient details are provided to replicate the work as the actual survey is included as an attachment.

Editorial question # 3, is the data sound and well controlled? I don't feel qualified to answer this question.

Question #4. Please see answer to question # 3.

Question # 5. Are the discussion and conclusions well-balanced and supported by the data? The discussion is rather wide-ranging but I find no points made that are not supported, and the conclusions seem reasonable and restrained.

Question # 6. Do the title and abstract convey what was found? The title "Low carbohydrate diets in family practice: What can we learn from an Internet-based support group" seems to emphasize family practice or a relationship with a primary care physician of some type, but I found the survey itself only included two questions pertaining to a "physician or other health professional," which could I guess include a nurse or a dietitian or an herbalist. And in the series of questions #s 49 through 55 relating to the item "to what extent were any of the following sources important to you in selecting a diet and in understanding nutrition in a relation to your diet," a physician's input was not even listed. And there was barely a mention of doctors in the included comments. From this meager amount of actual data the authors conclude that "it is reasonable for family practitioners to turn this observation into a recommendation for patients" but they haven't shown

that patients use their recommendations for decision-making, or even value their opinions.

Not that I disagree that this paper contains new information that would be helpful for family physicians in their discussions about diet with their patients. If the author's target for this paper is truly family physicians, I would suggest that it could have been submitted to a journal more widely read by family physicians, no offense intended!

The abstract seems faithful to the narrative.

Question # 7. I find the writing to be clear, professional, and restrained.

Overall for this paper I feel that no revisions are required.

Submitted by Robert J. Mikelonis, MD.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)--none

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct) --none

Discretionary Revisions (which the author can choose to ignore)--none

What next?: Accept without revision

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.