



Comparison of Motivational Interviewing to Standard Counseling on Phosphorus Levels



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INTRODUCTION

Current counseling styles for diet and medication adherence are not effective for a significant percentage of our hemodialysis (HD) patients. Motivational interviewing (MI) is a client-centered and client-driven counseling method that has its origins in addiction counseling.

Recently, there has been an interest in the use of MI in patients with chronic diseases. This counseling style can help patients identify intrinsic motivators as well as identify barriers to change. It is particularly useful with people who are reluctant to change. The focus shifts away from an authoritarian approach of giving information, advice and prescriptions toward a collaborative approach helping clients explore concerns, ideas and strategies for change.

Counseling patients with a chronic disease who are non-adherent to diet, medication and treatment prescriptions is a challenge. A knowledge of the stages of readiness to change and the corresponding effective counseling styles can provide an additional tool for healthcare workers.

METHODOLOGY

A randomized, multi-center study was conducted to evaluate the relative effectiveness of standard counseling (SC) and MI to improve phosphorus outcomes in HD patients. Forty-two HD patients from 2 DaVita centers met eligibility criteria of a baseline phosphorus of > 5.5 g/dL. The patients were stratified into 3 groups according to phosphorus level and then randomly assigned to receive SC (20 subjects) or MI (22 subjects). A readiness assessment questionnaire was also completed by each patient.

The treatment phase was 14 weeks during which the 2 groups received standard of care for nutritional therapy. Both groups also received an additional 20-30 minutes of dietary counseling from their facility registered dietitian (RD) each month for 3 months. The 2 RDs received 1 day of MI training. The SC group received standardized education materials and problem solving techniques that are standard practice for RDs. Phosphorus levels were measured twice a month. Successful intervention was defined at each visit for each subject if the phosphorus level was below 5.5 g/dL or if the level had decreased at least 10% from baseline.

A standard two-sample t-test was used to compare the mean % improvement observed in each treatment group. A chi-square test was done to compare the % of patients who showed improvement according to the prior definition of success.

Figure 1. Serum Phosphorus Reduction Combined Sites and Treatments

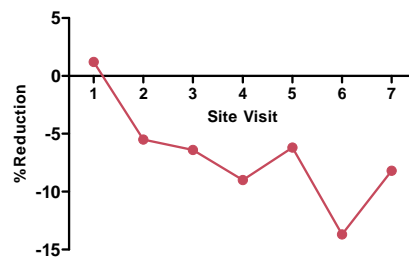
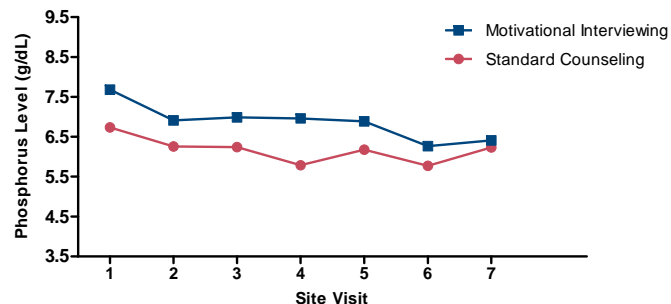


Figure 2. Effect of Counseling Style on Phosphorus Level



RESULTS

- Combining results across both methods shows a significant reduction in phosphorus levels compared to baseline with the addition of 20 minutes of counseling from both counseling styles (Figure 1).
- The results for the different counseling styles were not consistent across the 2 sites. At Site 1, SC produced statistically significant but temporary reductions in phosphorus levels. MI did not demonstrate a significant change. At Site 2, MI resulted in significant reductions by the end of the study, but there was not a similar reduction in the SC group. The difference between the counseling techniques was not significant at either site at any visit (Figure 2).

CONCLUSIONS

- Patients with chronic hyperphosphatemia benefit from additional adherence counseling. This data suggests the addition of 20 minutes per month of both MI and SC are effective counseling techniques for lowering phosphorus levels in HD subjects with chronic hyperphosphatemia.
- While both groups improved from baseline, only at Site 2 did the MI group achieve significantly improved results compared to the SC group.
- Motivational interviewing is a difficult counseling style to master and future studies are needed to evaluate MI training programs, competency of MI counseling skills, and characteristics of patients who respond to each of the 2 counseling styles.
- Both investigators felt that using MI improved the quality and depth of information gathered and was a more positive experience for both the counselor and the subject.

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