

DIABETES SELF-MANAGEMENT: A CULTURAL APPROACH

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The National Institute of Health reported that in California, Asian were 1.5 times as likely to be diagnosed with diabetes as non-Hispanic Whites. According to the National Institute of Diabetes and Digestive and Kidney Diseases, every percentage point drop in HbA1c reduces the risk of microvascular complications (eye, kidney, and nerve disease) by 40 percent. For the Chinese immigrants, access to quality health care is often hindered by linguistic, cultural and financial barriers.

Objectives: To assess the effectiveness of the Diabetes Self-Management: A Cultural Approach (DSMCA) program on the understanding and management of diabetes in diabetics (type I or II), and to improve management of diabetes as indicated by a decrease in participants' HbA1c after participation in the program.

Methods: The program DSMCA uses support groups to administer culturally and linguistically appropriate health education, as well as, provide social, and emotional support to participants and caretakers. A multidisciplinary approach was utilized that included a bilingual clinical and non-clinical staff. The support group sessions included diabetes overview and education on meal planning, medication, blood glucose monitoring, and etc. Quantitative health outcomes measures are used to evaluate the success of the program. Clinical indicators were obtained via HbA1c screenings at enrollment, 3 months after enrollment, and completion of the series (6 months from enrollment). Participants' diabetes knowledge gained was measured via focus group tested pre- and post- questionnaires.

Results: A total of 48 participants were enrolled in the support group and 23 consented to the HbA1c screenings. HbA1c change at 6 months: 42.1% participants had significant improvement in HbA1c ($\geq 1.0\%$ change) and 31.6% participants had significant improvement in HbA1c ($< 1.0\%$ change). 26.3% participants had no improvement or negative change in HbA1c ($\leq 0.0\%$ change). $F(1,18)=16.28$, $p=0.001$. Participants ($n=2$) with medication change were excluded from data analysis. Diabetes Knowledge Gained at 6 months: Relative to the pre-questionnaire 56.5% participants scored significantly higher on the post questionnaire, and 43.5% participants scored the same or significantly lower on the post-questionnaire. The analysis suggests that the support group increased patient knowledge and adherence to diabetes treatment recommendations. $F(1,22)=9.35$, $p=0.006$. In addition, 95.6% participants reported an increase in knowledge, 82.6% stated they were able to better manage their diabetes, 78.2% gained emotional support and 52.1% stated they appreciated the opportunity to gather with other diabetic participants.

Conclusion: DSMCA demonstrated that a low technology, high-socialization, linguistically and culturally appropriate approach can be a critical tool for improving the management of Diabetes Type I/ II among the immigrant population. The approach utilized in this program can be reproduced for other immigrant communities and other chronic conditions.