EDUCATING FAMILIES ABOUT CHOLESTEROL TO PREVENT HEART DISEASE

High cholesterol is the leading cause of heart disease, yet many people do not know how cholesterol levels affect their chances of heart disease. The objective of this study was to assess how much people at an urban clinic knew about cholesterol. With this information, we would be better equipped to educate patients about cholesterol, heart disease, and heart health. Approximately 42 adult patients and 8 minors were recruited for the study during a 3–4 week study period. In this cross-sectional study of patients at the University Physicians Group clinic, participants were recruited and each participant older than 10 years of age received an information sheet and a six-item questionnaire. Children ≤10 years of age received a four-item questionnaire. Our study showed that many adults and children at the clinic did not know very much about cholesterol and its role in causing heart disease; many participants gave incorrect answers for almost all of the questions. Educating families, including children, about heart disease and cholesterol will help to decrease heart disease in the next generation.

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INTRODUCTION

According to the American Heart Association, 100 million Americans have above normal cholesterol, and 34.5 million Americans have high cholesterol.[1] High cholesterol is the leading cause of heart disease. It has been estimated that 71.3 million Americans have some form of heart disease; 910,600 of them died from the disease.[2] In Michigan, heart disease is the number one cause of death.[3] Seventy heart disease deaths per day are reported in Michigan alone.[3] Many people do not know that cholesterol and their level of cholesterol affects their chances of heart disease. Also poorly known is the fact that atherosclerosis, the development of plaque in the arteries, begins in childhood. Informational materials are available to educate people about heart disease, but many do not understand the information because of the complexity of the subject matter or the terminology used.

In my study, we assessed the participant's knowledge of cholesterol by distributing questionnaires about cholesterol and heart disease. The participants were encouraged to return for a follow-up session to learn of their score on the questionnaire; at the same time, we provided them educational materials and displayed a model of how cholesterol clogs arteries and how atherosclerosis develops. The focus of the study was to educate families in order to prevent heart disease and atherosclerosis in the next generation.

METHODS

Approximately 42 adult patients and eight children were recruited for the study during a 3–4 week study period. This was a cross-sectional study of patients at the University Physicians Group clinic. Participants were recruited face-to-face by a research assistant. Each participant >10 years of age received an information sheet and a six-item questionnaire; children ≤10 years of age received a four-item questionnaire.

Before the study began, approval was obtained from the Wayne State University internal review board and the human investigation committee. Patients were read a consent form and we determined their consent by the fact that they chose to complete the questionnaire. The participants were given a special identification number, which was put on their questionnaire and chart. The questionnaires were graded by a research assistant and results entered into a spreadsheet (Microsoft Excel). Participants were informed that at their next visit, they would receive educational materials and the results of their questionnaire. The participants were also asked to take a follow-up quiz to determine if their knowledge of cholesterol and atherosclerosis had improved.

RESULTS

Many of the participants who completed the questionnaires missed almost all of the questions. The highest score by one participant was five (out of six). The average of correctly answered questions was 3.14 for adults and children. The average of incorrectly answered questions was 2.7 for adults and children. Of the participants who completed the six-item questionnaire, eight participants scored <50% on the questionnaire, 23 participants scored between 50%–70%, and one participant scored >70%. The participants' knowledge of cholesterol

was assessed and their levels of knowledge were attained.

CONCLUSIONS AND IMPLICATIONS

This study assessed a patient's knowledge about cholesterol and heart disease. We identified several topics where most participants were lacking information on cholesterol and will focus on these in order to better educate them about cholesterol. We have developed a few simple methods to educate people about cholesterol and heart disease, including demonstrations to illustrate how plaque buildup in the arteries leads to the progression and development of atherosclerosis and heart disease. Our future goal is to recruit more participants, especially children. Current and future participants will be provided with follow-up education. Participants will be retested to determine if cholesterol knowledge improved. We will evaluate the relevancy and usefulness of the activities and, if appropriate, expand it to include patients at other clinics and nearby hospitals.

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