

Operation Sunday School— Educating Caring Hearts to be Healthy Hearts

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Synopsis

This project seeks to improve traditional hypertension screening of the black population by developing a community oriented approach that can increase knowledge and involve a new target group—black children—in preventive techniques. To help achieve the educational goals, an anti-hypertensive picture book for black children has been designed. The picture book will be distributed through church Sunday School classes.

Several black churches in Chicago that were willing to host hypertension screenings for their congregations were identified; the picture books will be distributed through their Sunday School classes. Medical students, physicians, and members of the Black Nurses Association have been recruited to work collaboratively to introduce the picture book-manual, to instruct children on how to measure blood pressure, and to assist in the initial hypertension screenings at the churches. Funding is needed to print the manual and purchase sphygmomanometer sets for training. With the manual, equipment, and proper instruction of the children, each church will have the manpower to screen its at-risk population as often as possible.

Educating black children about hypertension and its detection increases their awareness and provides them with the knowledge to screen adults. The success of this community support system is the exchange of knowledge between children and adults and the constant followup and preventive intervention supplied through a dominant community organization, the black church.

DESPITE THE DECLINE in coronary heart disease (CHD) mortality, more persons die from heart disease than from all other diseases combined. CHD causes twice as many deaths between the ages of 35 and 74 years as does cancer, and it is by far the leading cause of death in all Western countries, particularly in the United States (1). One of the most important risk factors for heart disease is hypertension, or high blood pressure (HBP). Hypertension is one of the most life-threatening chronic diseases today. It is a risk factor not only for CHD but also for stroke, congestive heart failure, and renal disease. At least 15 percent of Americans have blood pressure higher than 160/95 and twice as many have blood pressures greater than 140/90, which drastically increases their risk of serious hypertensive complications (1). Although recent data show that the prevalence for HBP is similar for males and females, with males being slightly more at risk, HBP is still more prevalent in the black population than in the white.

Approximately 6,315,000 African Americans in the United States suffer from hypertension, making

it the most common chronic disease in this population (2). HBP begins at an earlier age in blacks than in other groups, and therefore it increases significantly the number of years of life lost because of premature death. Recently, several investigators have reported that hypertension is more common in black children than in other children (3). Although further studies are needed to delineate improved predictors for hypertensive children, two obvious factors are a family history of the condition and stress. Even with the uncertain etiology of this silent disease, a new target group has been identified in which early detection and health education may be useful—black children.

Hypertension is known to affect blacks at greater rates than are experienced by whites. The differences are a function of blood pressure level. More end organ damage, especially an 18 times greater rate of kidney failure, has been reported for this group (4). Additionally, the black population has the highest U.S. death rates from stroke secondary to hypertension of all groups in the United States. What is the future for black children who are predisposed to this condition?

Figure 1. Knowledge of high blood pressure (HBP) among 30 black teens interviewed at a school health fair

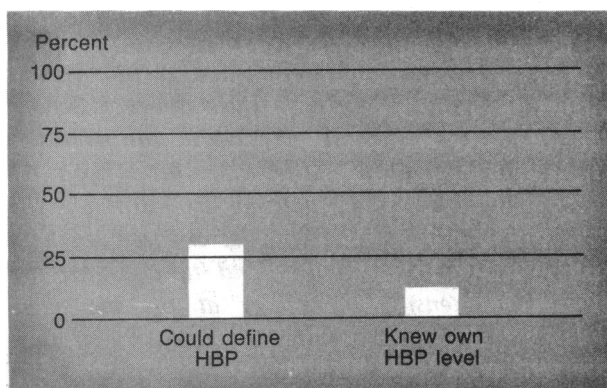
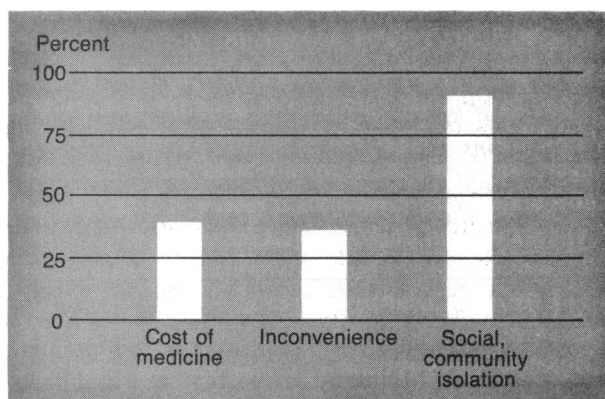


Figure 2. Reasons for lack of compliance among 50 hypertensive black male patients interviewed during hospital admission



With such statistics prevailing among the group at most risk for hypertension, it is doubtful that the 1990 HBP Objectives for the nation will be achieved, using current interventions, with only 1 year remaining. In 1985 the Secretary of Health and Human Services redefined his goals for the nation, which suggested that (5):

1. There will be public knowledge of HBP.
2. There should be monitoring of public perception of HBP and its perceived importance to cardiovascular health.
3. To identify persons with HBP more precisely and to measure levels of behavioral change made by this population to control blood pressure.

Thus, it is expected that by 1990, 90 percent of adults will be able to state whether their current blood pressure is normal or elevated, based on their most recent measurement (5). Data from the

Health Promotion/Disease Prevention Supplement of the National Health Interview Survey indicated that, "among the hypertensive group, nearly three-fourths of the white population were told their pressures in numbers; only slightly more than half of the blacks were told at the last visit (6). These findings from 1985 suggest that the population most in need of information is not well informed about the disease.

My personal observations (as a future physician) substantiate that black teens have difficulty defining hypertension and consider it a disease of old age. Of 30 teenagers interviewed at a Chicago area school health fair, only 30 percent could define HBP and only 12 percent knew their own HBP status (fig. 1). With the prevalence of HBP among blacks escalating and the level of awareness at a less than optimal level, it is understandable, but not acceptable, that in 1989 hypertension remains hidden and uncontrolled in a population most at risk.

Although the vast majority of hypertension among all Americans, including African Americans, is essential hypertension and the cause is unknown, many primary and secondary preventive interventions have been identified for well over a decade. Primary preventive measures are salt restriction and weight reduction. An overabundance of salt and high fat foods (chips, fries, and hamburgers) are common in the diets of many Americans, particularly young black Americans (7). In fact, the average American diet contains 10-20 mg of salt daily, and some black families have been shown to exhibit an intolerance to salt, putting them at particular risk for hypertension.

Secondary prevention measures are early detection using a defined procedure of sphygmomanometry, a reduction in cigarette and alcohol use, and an increase in exercise. Hypertension is measured by sphygmomanometry, an infallible test which, when done properly, is extremely sensitive and specific.

Why hasn't early detection been used to its full potential, particularly among black Americans? Surveys have indicated an improvement in hypertension awareness and control—yet statistics show that there are twice as many undetected black males and females as white males and females (2,8).

Although gains in early detection have been minimal in the black community, further studies indicate that black Americans are less willing to follow therapeutic measures to control HBP. In a health education study at Johns Hopkins Medical

School, several reasons for noncompliance were elicited among black clients, including the side effects of medication, lack of convenience, cost of medication, and confusion about their own specific therapy (9). The researchers observed that black hypertensive patients felt "a lack of family understanding and support; 70 percent expressed a need for a family member to learn more about hypertension, and 30 percent of these respondents indicated that they received no family support" (9).

Similar data were obtained by this physician in training in interviews with patients admitted to a local hospital during a 3-month period. Forty of 50 black males indicated that social or community isolation was reflected in their lack of compliance with preventive, therapeutic, and protective regimens to control their hypertension (fig. 2). These results suggest that conventional hypertension screenings are unsatisfactory as occasional interventions in the prevention of this disease.

Previous investigations support that an approach involving both education and attention to detail was highly successful in improving compliance in one study performed in a population of poor black urban persons with hypertension (10).

In assessing the value of such an approach, "Operation Sunday School" evolved as a health promotion-disease prevention project targeting black children and encompassing prevention education within a community-support environment, the black church.

The Problem

It is unacceptable that 50 percent of the black community do not know their own blood pressure reading and that community-support measures for persons with HBP are not in place by 1990, the target date for the national health objectives.

Objectives

The project has three objectives:

1. to develop a community-oriented model to encourage improved preventive and protective measures in controlling hypertension in the black community in order to help the nation meet the 1990 objectives for blood pressure control,
2. to educate a new target group, black children, about hypertension and teach them how to measure blood pressure and thus stimulate their interest in their own health and in medical science,
3. to provide a major community support sys-

tem, the church, with the educational tools, equipment, and manpower to monitor the health status of the at-risk population on a continuing basis and to solicit support and encouragement for better prevention measures and improved compliance with therapeutic measures.

Significance and Methodology

Operation Sunday School has the potential to (a) promote disease prevention among a population at serious risk of acquiring and dying of the complications of hypertension; (b) target black children to educate them about hypertension, increasing their awareness of the disease and their knowledge of its effects; and (c) most important, establish a system that enables the community to support its members with the technology and educational resources to promote the health of the members.

The following steps were necessary to carry out the project.

1. Design an anti-hypertensive picture book for black youth to be distributed to them through church Sunday Schools. The book has been written and illustrated.
2. Organize medical students to work collaboratively with other health workers (for example, the Black Nurses Association and the health advisory boards) to introduce the picture book manual to the churches and to help congregations in the initial hypertension screening.
3. Generate a church list of congregation members at risk and encourage continued followup and support of them in carrying out therapeutic regimens.
4. Conduct a survey in 1990 to assess the success of this model in screening and supporting church members.

Budget

Mass printing of the antihypertensive picture book and purchase of sphygmomanometer sets for training are the only costs involved in this project. The estimated cost is \$5,500.

Summary of Evaluation

To measure the success of this project, each church will need to develop long-term tracking of its at risk population. The followup survey in 1990 will permit the establishment of a system for identifying hypertensive children and adults. The

