INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

- 1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.
- 2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.
- 3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in "sectioning" the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again beginning below the first row and continuing on until complete.
- 4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from "photographs" if essential to the understanding of the dissertation. Silver prints of "photographs" may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.
- PLEASE NOTE: Some pages may have indistinct print. Filmed as received.

University Microfilms International

300 North Zeeb Road Ann Arbor, Michigan 48106 USA St. John's Road, Tyler's Green High Wycombe, Bucks, England HP10 8HR MASTERS THESIS

13-9843

KANE, Marcia L.
BEHAVIORAL COMMUNITY PSYCHOLOGY: INCREASING
PARTICIPATION IN A COMMUNITY-BASED BLOOD
PRESSURE SCREENING PROGRAM.

Western Michigan University, M.A., 1977 Psychology, general

Xerox University Microfilms, Ann Arbor, Michigan 48106

BEHAVIORAL COMMUNITY PSYCHOLOGY: INCREASING PARTICIPATION IN A COMMUNITY-BASED BLOOD PRESSURE SCREENING PROGRAM

Ъу

Marcia L. Kane

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment
of the
Degree of Master of Arts

Western Michigan University Kalamazoo, Michigan April 1977

ACKNOWLEDGEMENTS

Appreciation is extended to Cheryl Poche and Malcolm Robertson who assisted and supported me as members of my thesis committee. I would also like to acknowledge Jerri Rabbers, Yvonne Galbraith, and Lucille Dunlap, staff members of the Comstock Community Center, for their help in the organization and implementation of this study. Sincere thanks is extended to Brian Iwata, my committee chairman and advisor, for his encouragement, suggestions, support, and assistance not only with my thesis per se, but also throughout my graduate career. His guidance and friendship have proven valuable. Finally, I would like to thank my family and my husband's family for their continuous encouragement of my academic career. More specifically, I extend sincere appreciation to my husband, Daniel, for his emotional and financial support in the preparation of my thesis as well as the completion of the graduate curriculum.

Marcia L. Kane

TABLE OF CONTENTS

CHAPTER	PAC	ΞE
I	INTRODUCTION	L
II	METHOD	7
	Subjects	7
	Setting	7
	Response Measure	3
	Reliability)
	Procedure	}
	Experimental Design	L
III	RESULTS	3
	Number Attending Initial Screening	3
	Number Attending Doctor's Appointment 16	5
IV	DISCUSSION)
v	REFERENCES	7
VI	APPENDICES)
	Appendix A	=
	Appendix B	:
	Appendix C	3
	Appendix D	ļ

TABLE OF FIGURES

FIGURE			PAGE
1	FIGURE 1:	Number of persons attending blood pressure screenings and number of attendees with high blood pressure readings	
2	FIGURE 2:	Percent of attendees with high readings examined by their physician following screening	18

INTRODUCTION

Hypertension, the sustained elevation of pressure within the blood vessels, affects an estimated 15.3% or twenty-three million people eighteen years or older in the United States. Of these twenty-three million individuals, fifty percent are not aware of their condition (Professional Advisory Task Force on High Blood Pressure, 1975; Department of Health, Education, and Welfare, 1964). This unawareness results from the fact that persons with hypertension feel well, and consequently do not seek diagnosis or treatment (Wilbur and Barrow, 1969). High blood pressure, often termed the "silent disease" due to the absence of negative, overt effects on the patient, not only triples the patient's risk of heart disease and stroke, but also is one of the major contributors to kidney disease. Consequently, blood pressure level is presently identified as the basic category for controlling heart disease (Professional Advisory Task Force on High Blood Pressure, Note 1).

High blood pressure adversely affects society as well as each untreated individual. Circulatory problems alone caused by untreated hypertension affect approximately seven million persons in the United States. These problems result in 150 million disability days, 26 million days of hospitalization, and one million deaths per year. Estimated dollar costs of circulatory problems to society suggest a value of twenty billion dollars per year (American Medical Association and American Osteopathic Association, 1972-1973). It has been

suggested that federal and state governments could save money by subsidizing the cost of high blood pressure control programs rather than waiting to pay medical bills for hypertension-related terminal or disabling illness (Feldstein, 1974).

Hypertension can be controlled, but it cannot be cured. Patients must maintain a life-long treatment program, taking such drugs as thiazide, reserpine, hydralzine, and methlydopa which often produce side-effects such as drowziness, depression, inappropriate responses to stimuli, and lack of ability to concentrate (Veteran's Administration Cooperative Study Group on Antihypertensive Agents, 1970). Fifty percent of patients experiencing these side-effects discontinue antihypertensive therapy within one year resulting in a need for improved pharmacological agents and treatment methodologies (Professional Advisory Task Force on High Blood Pressure, 1975).

Applied behavior analysts have dealt with the problem of hypertension via conditioning paradigms. Efforts have been made to decrease systolic as well as diastolic blood pressure readings through classical conditioning (Whitehead, Lurie & Blackwell, 1976; Elder, Ruiz, Deabler & Dillenkoffer, 1973). In addition, operant techniques of feedback and reinforcement have been implemented to decrease systolic blood pressure (Shapiro, Tursky, Gershon & Stern, 1969; Benson, Shapiro, Tursky & Swartz, 1971). These studies have been concerned with the treatment of hypertension only after it has been identified as a problem, and not with the initial diagnosis of the condition.

A physical problem is usually detected by the patient or his physician. The patient then sees or is referred to one who is qualified to accurately diagnose and treat the problem. If the problem is chronic a maintenance program is established to sufficiently control the ailment. These steps - detection, referral, diagnosis, treatment, and maintenance - are essential aspects of any successful medical program. However, since hypertension is often not accompanied by any overt symptoms, it is not detected by the patient himself. The initial focus for any national program to control high blood pressure must then become that of detection. Persons must be induced to have their blood pressure checked before any of the other program steps may be effected. Establishing low-cost detection resources, increasing community awareness of the problem, and recruiting community participants have been suggested as initial steps in eliminating the blood pressure problem in the United States (Hammell, 1975).

The recent advances of behavioral community psychology (Briscoe, Hoffman & Bailey, 1975) provide techniques which may be implemented in the initial stages of development of a national hypertension program. The application of behavioral technology to socially significant problems in the unstructured community has been employed in a wide range of areas such as: community dental care (Reiss, Piotrowski & Bailey, 1976), public welfare (Miller & Miller, 1970), community mental health (Turner & Vernon, 1976), urban transportation (Everett, Hayward & Meyers, 1974), policy board effectiveness (Briscoe, et al., 1975), shoplifting (McNess, Schnelle, Egli, Marshall & Risley, 1976),

and environmental pollution (Burgess, Clark & Hendee, 1972; Chapman & Risley, 1974; Clark, Burgess & Hendee, 1972).

The current study involved the implementation of behavioral techniques in a community-based blood pressure screening program. The purpose of the program was to detect those persons with high readings and refer them to their physicians for diagnosis and treatment. Two problems existed in program operations: increasing the number of participants and insuring that clients with high readings saw their physicians as soon as possible after screening.

Behavioral literature has illustrated that prompts in the form of telephone contacts could be used to increase the number of clients attending appointments at a mental health center (Turner & Vernon, 1976). Prompts in the form of home visits were also shown to be effective in increasing attendance of senior citizens at a lunch program (Bunck & Iwata, in press). This study also illustrated that public service announcements were ineffective as prompts for attendance. The possibility exists that personal contact maximizes the effectiveness of prompts. However, for a non-profit agency prompts in the form of home visits and telephone contacts would be too costly to warrant their implementation in efforts to increase and maintain the program (Bunck & Iwata, in press). In addition, it is not known who the recipients of service are, thus rendering personal contacts for blood pressure screening impossible. One alternative may be to personalize the content of public service announcements. An educational prompt, one which not only delineates the aversive consequences resulting from non-participation, but also illustrates the potential

reinforcers for participation, may be more effective than simply a statement of when and where services may be obtained.

Incentives also have been used to increase participation in community-based programs aimed at encouraging parents to seek dental care for their children (Reiss, Piotrowski & Bailey, 1976), encouraging the elderly to participate in a lunch program (Bunck & Iwata, in press), and increasing participation by welfare recipients in self-help groups (Miller & Miller, 1970). The results of these studies suggest that incentives can be a very efficient means for increasing attendance in a blood pressure screening program. A problem arises, however, in that the incentives implemented in the above mentioned studies, financial rebates, edible goods, home furnishings, and legal aid, were too costly for the present program. The solution was to acquire free health related incentives for the program site from existing community resources and from local industry.

Finally, it has been shown that assistance in the form of locating a home, negotiating grievances with landlords, and eliminating legal problems would increase self-help group attendance (Miller & Miller, 1970). In this study assistance was just one of three categories of incentives offered to increase participation. The current study attempted to determine if assistance alone in the form of providing free transportation and the scheduling of doctors' appointments would increase the number of persons who saw their doctor if their blood pressure readings were high.

Since the experimenter's goal was to determine low-cost, efficient methods which could be easily implemented and maintained by community center staff and increase attendance at initial screenings as well as doctors' offices, a behavioral package was developed. Educational prompts, newsletter articles and public service announcements were combined with free health-related incentives to increase the number of persons attending the initial screening session. Referral assistance was offered to those clients who attended the screening and had high readings in an effort to insure that they were examined by their physician.

METHOD

Subjects

Participants in this study were individuals over eighteen years of age residing in a rural township of 12,000 residents. From the first eighty clients attending the Blood Pressure Screening Program it was determined that the ages ranged from eighteen to eight-nine years with a mean age of sixty-nine years. Thirty-three of these clients were male, fifty-five were female.

Setting

The screening program was conducted at a local community center, an attractive, modern facility centrally located in the township.

This site was one of the target locations selected by the county

C.A.T.C.H. program (Community Action to Control High Blood Pressure),
a non-profit corporation affiliated with the state Heart Association.

Organized in 1975, C.A.T.C.H. established a ten year plan aimed at the control of hypertension throughout the county. The community center provided free high blood pressure screening conducted by staff members who had completed a blood pressure certification course. Clients screened who had high readings were then referred by the staff to local physicians for further diagnosis and treatment. In addition to the screening program the center offered dental care, day care, family planning, Title VII nutrition, youth, senior citizens,

information and referral, and counseling programs. All township residents regardless of income level were eligible to participate.

Response Measure

Number attending initial screening. An observer was present at each session and recorded the name, address, and telephone number of each client before their blood pressure was taken. The screener recorded identical information plus the name of the client's doctor, previous history of hypertension and medication, age, and date when the client last had his blood pressure recorded. If the client did not have a doctor, the screener recommended one at that time. Only persons attending the sessions on scheduled days at scheduled times were counted. The number of persons attending each screening session was tabulated.

Number attending an appointment with physician. The screener determined which clients had high readings by taking two consecutive readings from one arm of the client. The reading was scored as high according to a blood pressure chart (see Appendix A). The experimenter contacted the doctor's office of each client whose reading was high seven days following the screening to determine: 1. if the client had made an appointment and 2. if the client had kept the appointment. If the appointment was scheduled later than seven days the experimenter contacted the physician on that date. Each client was also contacted by the experimenter to confirm the fact that (s)he had been seen by a doctor. One response was counted if both

the doctor and the client confirmed that an appointment had been kept by the client.

Reliability

Both the screener and the observer recorded the name, address, and telephone number of each client attending the initial screening sessions. For the total number of clients per session reliability was calculated by dividing the number of agreements by the sum of the number of agreements plus disagreements and multiplying this number by 100.

The experimenter contacted the clients with high readings and their doctors to ascertain if an appointment had been kept. Reliability was calculated in the same manner as above, agreements divided by agreements plus disagreements multiplied by 100. Inter-observer reliability for both measures was 100% across all phases of this study.

Procedure

Baseline. During this and all subsequent conditions all clients attending the initial free screening provided the observer with the necessary information, then had their blood pressure taken by the screener. He informed them if their reading was normal, borderline, or high. If the reading was high, the screener suggested that the client see a physician.

<u>Informative prompts</u>. During the baseline condition, informative prompts were implemented. These consisted of a one sentence article

in the township newsletter which was sent to all residents during the first week of each month. The article stated that free blood pressure screening was available at the community center every Monday at noon.

Educational prompts. This condition consisted of an article in the township newsletter and a 45-second public service announcement given to the community's eight commercial radio stations. The article was published on the first page of the newsletter and contained information concerning the prevalence of hypertension in the state, physical consequences resulting from untreated hypertension, where and when screening was provided and a list of incentives (see Appendix B). Public service announsements were broadcast two days before the first screening session of each month and one weekend fourteen days later. The announcement was broadcast from one to three times per day, according to each station's policy on public service announcements (see Appendix C).

Incentives. Immediately following the screening session each client was given a health packet which contained a blood pressure information booklet, Unicap Senior Therapeutic Vitamins for those clients over 60 years of age, a pamphlet concerning free nutritional and special diet assistance provided by the local cooperative extension service, information regarding procedures for obtaining free transportation to life support services, and a booklet containing a complete description of all programs provided by the community center (see Appendix D). Incentives were given to the community

center free of charge by the C.A.T.C.H. program, and the vitamins were donated by a local drug manufacturing company.

Assistance. For all clients whose blood pressure reading was high, the experimenter provided assistance. Immediately following the screening the experimenter met with the client, explained the importance of visiting a doctor as soon as possible, offered to schedule a doctor's appointment for them and to provide free transportation. Those clients who desired to schedule their own appointments were told that they would receive a telephone call from the experimenter in three days to confirm that an appointment was scheduled and to ascertain if further assistance (i.e., transportation) was needed. All clients were informed that the experimenter would be contacting their physician to determine if their appointment had been kept.

Experimental Design

A quasi-experimental time-series design was used (Glass, Willson & Gottman, 1975; Campbell & Stanley, 1966). Nine baseline sessions were recorded during which neither educational prompts nor incentives were offered. Following the seventh baseline session, the assistance phase was implemented. All clients whose readings were high met with the experimenter and were offered assistance. Also, all clients who had been screened during baseline and had high readings were individually contacted by the experimenter. They were offered assistance in scheduling a doctor's appointment and in obtaining transportation if they had not yet been examined by their physician. During the

week preceding the ninth session, the educational prompts were implemented. The incentives were provided beginning with the ninth session. Educational prompts, incentives, and assistance were then continued throughout the remainder of the study. An A-B type of design was used.

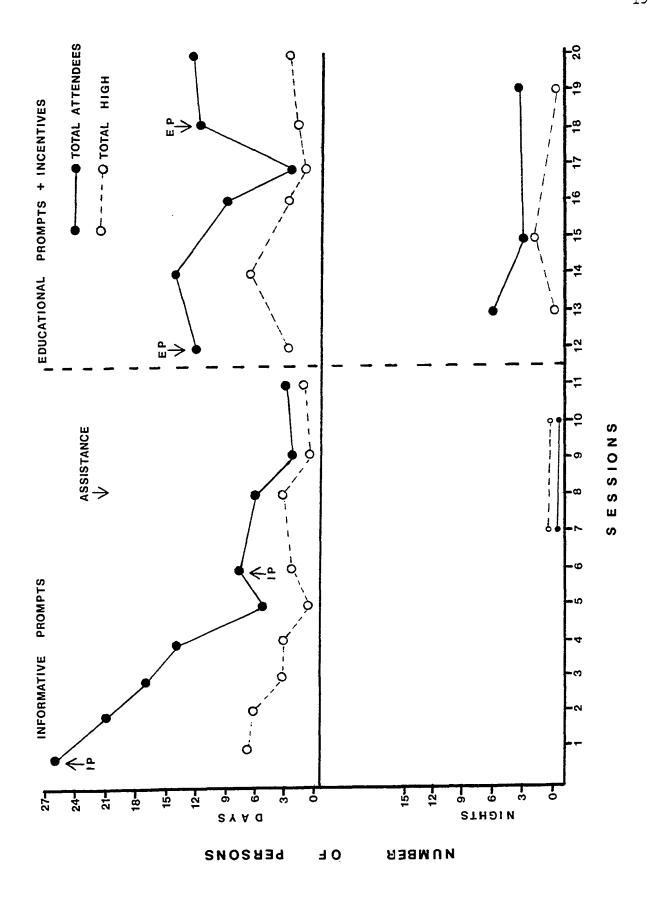
RESULTS

Number Attending Initial Screening

Baseline data were collected for a total of nine sessions over two months with 102 persons participating. Figure 1 shows that the greatest number of individuals were screened during the first program session, and that attendance steadily declined throughout baseline with one slight increase after the newsletter was received by township residents. Attendance ranged from 26 to two individuals. The total number of clients with high readings varied as a function of the number of participants. The total number screened who had high readings during baseline was 21 with a mean of 2.3 per session.

Once the educational prompts and incentives were implemented attendance increased. As shown in Figure 1, attendance during these six sessions ranged from 13 to three individuals with a total of 73 persons screened. Attendance increased systematically with the receipt of the newsletter by township residents. Sessions 12 and 18 show a large increase in the number of participants. Attendance then decreased when the educational prompts were not in effect. Incentives were provided at each session, but the increase in attendance obtained when the prompts were implemented was not maintained. Figure 1 also shows that the implementation of assistance at Session 7 did not affect the number of persons screened. Attendance continued to decline until the prompts were again implemented. The number of

Figure 1: Number of persons attending blood pressure screenings and number of attendees with high blood pressure readings.



individuals scored as high again varied as a function of the number of participants. The total number screened who had high readings was 19 with a mean of 3.2 per session.

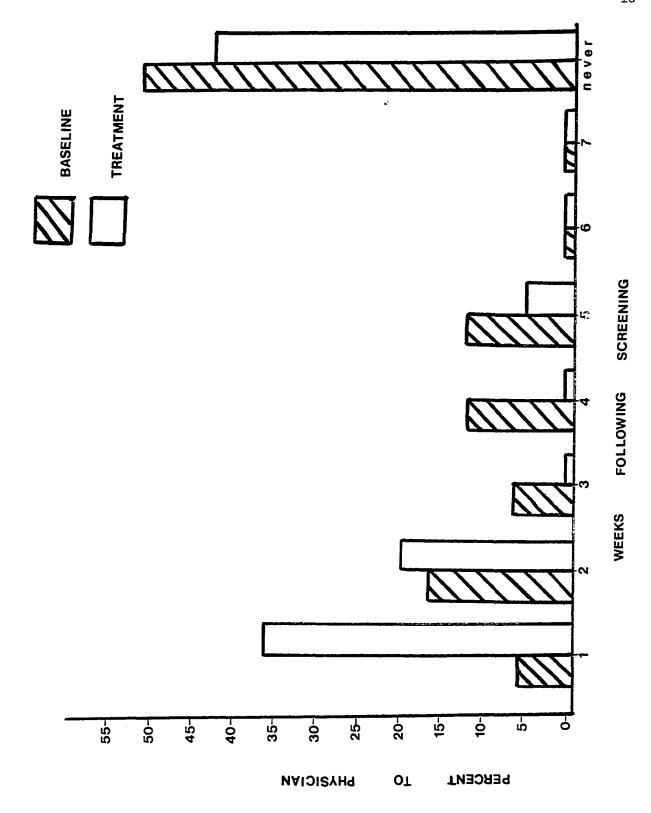
Five evening sessions were scheduled with two sessions during the baseline condition and three during the treatment condition.

Figure 1 shows that there were no participants during the evening baseline sessions. During the treatment condition, 11 persons were screened, with a mean of 3.7 per session. One person had a high blood pressure reading. Again, attendance increased one week following the prompts then decreased when the prompts were no longer in effect.

Number Attending Doctor's Appointment

Figure 2 shows that 49.8% of all clients screened during the baseline session who had high readings did not see their physician as compared to the assistance phase when the percent of clients not seeing their physician decreased to 40.9%. Figure 2 shows a large increase in the number of persons with high readings who saw their physician within two weeks following screening during the assistance phase, 54.6%, as compared to 22.3% during baseline. Twenty-seven point nine percent of all participants with high readings during baseline saw their doctor three to five weeks following screening as compared to 4.5% during treatment. The one person screened during the night session did not see his doctor. The assistance phase did not greatly increase the total number of persons seeing their doctors,

Figure 2: Percent of attendees with high readings examined by their physician following screening.



but it did significantly alter the time between initial screening and when each client was checked by his physician as compared to baseline data. Over half of all clients sought diagnosis and treatment by their doctors within two weeks following screening.

DISCUSSION

Present results suggest that the implementation of a strong prompting procedure combined with minimal incentives may effectively increase the number of participants in a community-based, blood pressure screening program. Attendance increased systematically following the implementation of prompts and decreased when the prompts were not employed. In discussing the effects of the prompts it should be noted that this condition involved newsletter articles and public service announcements. The systematic increase in attendance was visible only following the receipt of the newsletter by township residents. Public service announcements were aired at the same time as and two weeks following the newsletter mailing. No increase was noted when the public service announcements were aired mid-month, suggesting that they were not an integral part of the treatment. These findings are similar to those of Bunck and Iwata (in press). Newsletter articles and incentives may have resulted in the increase. It should also be pointed out that the attendance at night sessions greatly increased during the treatment phase.

Incentives and prompts were implemented simultaneously. Although there was a large increase in attendance from baseline to treatment, this increase was not maintained across time. Participation was systematically related to receipt of the newsletter. However, since the incentives were listed in the newsletter article, their effect cannot be minimized or clearly delineated. It is suggested that the

effects of prompts and incentives summated to produce the attendance increase.

The implementation of assistance for those clients with high readings may be regarded as successful. The percent of persons seeing their doctor during this phase was greater than that of the baseline phase, and persons with high readings who saw their physicians during the assistance phase did so immediately following the initial screening. The clients who saw their physicians during the baseline phase did so three to five weeks following screening. It is suggested then that assistance in the form of providing free transportation and scheduling of doctor's appointments is an efficient, low-cost method of increasing attendance at a physician's office for those in need of immediate diagnosis and treatment.

Although the prompts, incentives, and assistance proved to be successful according to the reported results and in accordance with previous findings, some problems exist with respect to the internal validity of the study. One problem stems from the use of a quasi-experimental time-series design (Glass, Gottman & Willson, 1975). This is basically an A-B type of design in which baseline data are taken and the treatments are then imposed and maintained across the remaining sessions. In the present study a reversal phase was not implemented due to ethical considerations. Furthermore, it was not possible to apply a multiple-baseline design because separate, independent groups could not be delineated, screening sessions could not be scheduled systematically across day and night sessions due to other

community center programs, and the behaviors which were measured were not completely independent. The A-B type of design was most feasible in that it allowed any community resident participating to be included in all treatment phases, prompts and incentives could be simultaneously imposed to maximize their potential effect on attending behavior, and assistance could be implemented on that group of subjects with high readings before the prompts and incentives were imposed. This enabled the experimenter to determine if the assistance phase in any way affected the number of persons attending the sessions.

Quasi-experimentation takes the posture that any experiment is valid until proven invalid (Schnelle & Lee, 1974). Possible threats to internal validity of this study include subject-related problems, (selection and mortality), measurement problems, (instrumentation decay, inadequate sampling, and variability), and intervening variables, (history and maturation). Sources will be considered in an attempt to validate the above mentioned results.

Considering subject selection, the experimenter recorded data on all program participants. Those subjects participating in the assistance phase were selected according to their blood pressure reading only (see Appendix A). The possibility does exist that participants were those community residents who often visited their physician, were more concerned about their physical health, and/or could not afford to see a private physician. However, the data did not reveal this to be the case. Attendance decreased when the prompts were no longer in effect, and a mean of 45% of all clients did not see

their physicians even after their blood pressure had been recorded as high. Mortality was not a major consideration in the prompt and incentive phase due to the fact that once data had been recorded on one specific subject, that subject was not required to continue participation in the program. Those subjects with high readings were required to engage in additional behavior, that of going to see their physicians, but the experimenter was interested not only in those subjects that attended a physician's appointment, but also in the number of subjects that did not attend. Since all subjects were able to receive assistance if they so desired, the experimenter was not selecting only those subjects that were likely to improve (i.e., see their physician).

Since no changes were made in the recording procedures at any points in the study, the possibility of instrumentation decay may be eliminated. The same screener, observer, method of data collection, and instruments were employed during all phases. Inadequate sampling procedures may also be eliminated as a potential source of invalidity. Data was taken on all subjects participating in the program.

Although no data was taken on extraneous variables that might account for the increase in attendance and the number of clients attending their doctor's office, the possibility that history, events other than the experimental treatment that occurred at the same time treatment was imposed, and maturation, changes due to a long term trend, may be ruled out due to the systematic variation in the data as a function of the implementation of treatment conditions. A definite

increase and decrease in attendance with the imposition and withdrawal of prompts leads to the conclusion that treatment alone resulted in changes in the dependent variable. It is hypothesized
that extraneous events affecting the results would have affected the
systematic variability of these results throughout the treatment
conditions. In this respect, the implementation of prompts is quite
similar to the multielement design in which the behavior is repeatedly
measured under alternating conditions of the independent variable.

If different patterns of responding develop, and each pattern is
observed to be unique to a particular experimental condition, then
experimental control has been demonstrated (Ulman & Sulzer-Azaroff,
1975). Such is the case with the implementation of prompts, when,
in effect, the prompts resulted in a large increase in attendance,
and attendance then declined when the prompts were no longer imposed.

After considering the possible sources of invalidity it appears that the implementation of strong educational prompts combined with incentives increased the number of participants in the blood pressure program. These results are similar to those of Turner and Vernon (1976) who showed that telephone prompts will increase the number of persons keeping their appointments at a mental health center, and to those of Bunck and Iwata (in press) who illustrated that prompts in the form of home visits will increase attendance at a lunch program. The results also support the hypothesis that educational prompts, those that alert the subjects to aversive situations, will be more effective than a statement of when and where services may be obtained.

Although the effects of incentives alone were not clearly established, the increase in attendance as a result of the combination of incentives with prompts would be in accordance with the finding of Reiss, Piotrowski, and Bailey (1977), Miller and Miller (1970), and Bunck and Iwata (in press) who showed that incentives will greatly increase participation in community-based programs.

Assistance was also shown to be an effective method not only for increasing the number of persons who saw their physician, but also for assuring that persons with high readings saw their doctor as soon as possible once a high reading was detected. Miller and Miller (1970) reported similar results for welfare clients. They illustrated that assistance, combined with other reinforcers, facilitated attendance at self-help group meetings.

Further research could examine the effects of free, healthrelated incentives alone to determine their efficacy. Another study
might employ a multiple-baseline design to determine the relative
efficacy of assistance, prompts, and incentives as separate treatments
imposed to increase attedance and insure physician diagnosis and
treatment in other health-related community programs.

The educational prompts, incentives, and assistance proved to be effective as a package in terms of increasing the number of participants as well as insuring that those persons with high readings saw their physicians. The techniques implemented here were not only effective, but also easily carried out by the community center staff. The continuous implementation of these techniques would assure the

program of a stable number of participants, would continue to draw new participants over time, would help to alleviate the problem of clients not seeking treatment for a hypertensive condition, and would be of little cost to the community center.

REFERENCES

- American Medical Association and American Osteopathic Association. Computer File Directories. 1972-1973.
- Azrin, N. H. and Powell, J. Behavioral engineering: The use of response priming to improve prescribed self-medication. <u>Journal</u> of Applied Behavior Analysis, 1969, 2, 39-42.
- Baer, D. M., Wolf, M. M. and Risley, T. R. Some current dimensions of applied behavior analysis. <u>Journal of Applied Behavior</u>
 Analysis, 1968, 1, 91-97.
- Benson, H., Shapiro, D., Tursky, B. and Schwartz, G. Decreased systolic blood pressure through operant conditioning techniques in patients with essential hypertension. <u>Science</u>, 1971, <u>173</u>, 740-742.
- Briscoe, R. V., Hoffman, D. B. and Bailey, J. S. Behavioral community psychology: Training a community board to problem solve. <u>Journal</u> of Applied Behavior Analysis, 1975, 8, 157-168.
- Bunck, T. and Iwata, B. Behavioral community psychology: Encouraging the community-based elderly to participate in a nutritious meal program. Journal of Applied Behavior Analysis, in press.
- Burgess, R., Clark, R. and Hendee, J. An experimental analysis of anti-litter procedures. <u>Journal of Applied Behavior Analysis</u>, 1971, 4, 71-75.
- Chapman, C. and Risley, T. R. Anti-litter procedures in an urban high density area. <u>Journal of Applied Behavior Analysis</u>, 1974, 7, 377-383.
- Clark, R. N., Burgess, R. and Hendee, J. C. The development of antilitter behavior in a forest campground. <u>Journal of Applied</u> Behavior Analysis, 1972, 5, 1-5.
- Elder, S. T., Ruiz, Z. R., Deabler, H. L. and Dillenkoffer, R. L.
 Instrumental conditioning of diastolic blood pressure in essential hypertensive patients. <u>Journal of Applied Behavior Analysis</u>, 1973, 377.
- Everett, P. B., Hayward, S. C. and Meyers, A. W. The effects of a token reinforcement procedure on bus ridership. <u>Journal of Applied Behavior Analysis</u>, 1974, 7, 1-9.

- Feldstein, P. J. Financing hypertension: The costs and benefits of government intervention. The University of Michigan, 1974.

 (Report for the Hypertension Coordinating and Planning Council of Southeastern Michigan; printed by the Michigan Association for Regional Medical Programs.)
- Glass, G. V., Willson, V. L. and Gottman, J. M. <u>Design and Analysis</u>
 of <u>Time-Series Experiments</u>. Boulder, Colorado: Colorado
 Associated University Press, 1975.
- Hammel, E. M. and Dedenbach, M. T. <u>High blood pressure in Michigan:</u>
 A perspective for community management. Lansing, Michigan:
 Michigan Association for Regional Medical Programs, 1974.
- Miller, L. K. and Miller, O. Reinforcing self-help group activities of welfare recipients. <u>Journal of Applied Behavior Analysis</u>, 1970, 3, 57-64.
- Professional Advisory Task Force on High Blood Pressure. A report on high blood pressure in Michigan. Lansing, Michigan: Michigan Association for Regional Medical Programs, 1975.
- Reiss, M., Piowtrowski, W. and Bailey, J. S. Behavioral community psychology: Encouraging low-income parents to seek dental care for their children. <u>Journal of Applied Behavior Analysis</u>, 1976, 9, 387-397.
- Shapiro, D., Tursky, B., Gershon, E. and Stern, M. Effects of feed-back and reinforcement on the control of human systolic blood pressure. <u>Science</u>, 1969, 163, 558-590.
- Schnelle, J., Kirchner, R., McNees, M. and Lawler, J. Social evaluation research: The evaluation of two police patrolling strategies. Journal of Applied Behavior Analysis, 1975, 4, 353-365.
- Schnelle, J. and Lee, J. A quasi-experimental retrospective evaluation of a prison policy change. <u>Journal of Applied Behavior Analysis</u>, 1974, 7, 484-495.
- Turner, A. and Vernon, J. Prompts to increase attendance in a community mental health center. <u>Journal of Applied Behavior Analysis</u>, 1976, 9, 141-146.
- Ulman, J. D. and Sulzer-Azaroff, B. Multi-element baseline design in educational research. In E. Ramp and G. Semb (Eds.), <u>Behavior Analysis</u>: <u>Areas of Research and Application</u>. Englewood Cliffs, New Jersey: <u>Prentice-Hall</u>, 1975.

- U. S. Department of Health, Education, and Welfare. Public Health Service. Blood pressure of adults by race and area: United States, 1960-62. <u>Vital and Health Statistics</u>. National Center for Health Statistics, P.H.S. Publication No. 100-Series 11-no. 5. Washington, D. C.: U. S. Government Printing Office, 1964.
- Veterans Administration Cooperative Study Group on Antihypertensive Agents. Effect of treatment on morbidity in hypertension: Results with diastolic blood pressure averaging 90 through 114 mm.g. Journal of the American Medical Association, 213, 1970.
- Whitehead, W., Lurie, E. and Blackwell, B. Classical conditioning of decreases in human systolic blood pressure. <u>Journal of Applied Behavior Analysis</u>, 1976, 9, 153-157.
- Wilber, J. A. and Barrow, J. G. Reducing high blood pressure.
 Minnesota Medicine, 1969, 1305.
- Zlutnick, S., Mayville, W. and Moffat, S. Modification of seizure disorders: The interruptions of behavioral chains. <u>Journal of Applied Behavior Analysis</u>, 1975, 8, 1-12.

APPENDICES

APPENDIX A

Observer's Name			Screening Site			Date/_/						
Name			Age .	Sex:	М	F	Race	e: WB	0			
Address								110	Diagto	lio		
City			Zip		lan Daadina	_			Diasto			
Phone					lst Reading	• -						
					2nd Reading	: -		 -				
YES	NO	1.	Have you ever had blood pressure?	high	Circle:	N	В	F	I			
YES NO 2. Is there a physi			Is there a physici this community tha				Diastolic					
			consider as your p	-	al		Up to	88	90-94	96	& Up	
			or family doctor?			8			В		H	
			Who?		140-15	3]	В	В		Н	
YES	NO	0 3.	Are you currently t medicine for high b			p	Н		Н	1	H	
			pressure?			-	1					
YES	NO	4.	Has your blood pre been taken in the year?									

COMMENTS:

APPENDIX B

Newsletter Article

You might be one of the million people in Michigan with high blood pressure. Over half of all people with high blood pressure are not even aware of their condition! You may not feel sick yet your high blood pressure will triple your risk of having a stroke, heart disease, or kidney failure. To find out if YOU might have high blood pressure, you can attend the FREE Blood Pressure Screening Program at C.C.C. on Mondays at noon or December 9th and 16th at 7:00 p.m. If you come to the FREE screening you will also receive a FREE Health Packet containing blood pressure information, vitamins (for those over 60 years old), information on nutritional assistance and free transportation to the doctor's office, and MORE! We will also assist you in scheduling a doctor's appointment or finding a good doctor. The screening only takes 5 minutes of your time; not a high price to pay for peace of mind. This Christmas give yourself the gift of health. COME TO THE FREE BLOOD PRESSURE SCREENING!

APPENDIX C

Public Service Announcement

You could be one of the million people in Michigan with the "silent disease", high blood pressure. You may not feel sick or show any symptoms yet have high blood pressure which triples your risk of stroke and heart disease, and may also cause kidney failure. To find out if your blood pressure is high, you may attend the Free Blood Pressure Screening Program at the Comstock Community Center on King Highway every Monday at noon or December 9th and 16th at 7:00 p.m. Besides determining if your blood pressure is high, you will receive a free health packet, assistance in scheduling a doctor's appointment if necessary, and transportation to your doctor. For more information call 345-8556. This Christmas give yourself a gift of health.

APPENDIX D

WAS YOUR BLOOD PRESSURE HIGH TODAY?

If so, it is important for you to schedule a doctor's appointment as soon as possible (preferably this week). You have just received an initial screening and only your doctor can diagnose if you have hypertension.

After you make your doctor's appointment, we will be happy to provide transportation for you to your doctor's office, if you are unable to provide you own. To arrange for a ride, just call 345-8556, explain to the secretary that you need a ride, give her the day, time, and place as well as your address. Our van driver will then pick you up at your home and transport you to the office. It would be helpful if you called at least one day in advance of your appointment to schedule a ride.

It's as simple as that! Please, feel free to contact us for transportation assistance. That's what we're here for.

The number for C.C.C.: 345-8556

34

NUTRITION ASSISTANCE

If your doctor diagnoses that you have high blood pressure and recommends that you should be on a special diet of some sort, the COOPERATIVE EXTENSION SERVICE OF KALAMAZOO, 420 West Kalamazoo, 383-8830, has persons who can assist you in planning menus, making substitutions in your recipes, etc.

If you would like to receive assistance from them, free of charge, you may contact Janet Richardson at the address listed above. She will be happy to help you meet your nutritional needs.

If you would like transportation to the Cooperative Extension Service, please contact the Comstock Community Center at 345-8556.

November 17, 1976

COMSTOCK COMMUNITY CENTER

PROGRAM & SERVICES

TRANSPORTATION:

This service is provided on a demand basis for Comstock Township residents primarily for rides to life-support services.

OUTREACH SERVICES:

Outreach worker is available to help residents in distress situations, provide counseling, follow-up, and make referrals.

INFORMATION & REFERRAL

This service provides clients with necessary information about available resources to meet their particular needs. Referral to indicated resource and follow-up is provided.

YOUTH SERVICES:

This program provides services to young people in three areas:

- Recreation: skating, drop-in, dances, swimming, soft-ball, etc.
- 2. Counseling: one-to-one counseling for young people with specific problems.
- 3. Identification & awareness: group sessions to help young people understand themselves, each other, parents, and other adults, and to help them understand the problems of growing up.

DAY CARE:

A child development program for children between the ages of 2½ and 5 years old. Licensed and certified by the Department of Social Services, it provides an individualized program to meet specific developmental needs of each child.

CLOTHING BAR:

Located at the old Middle school on 26th Street. open Monday thru Friday 9-3. Used clothing and household goods are available at low cost to persons in need.

BLOOD PRESSURE SCREENING:

This program provides initial Blood Pressure Screening, assists in obtaining doctor's appointments if Blood Pressure Readings are high, and is free of charge.

COMSTOCK COMMUNITY CENTER

HOST PROGRAMS AND SERVICES

Kalamazoo County Health Department:

Well-Child Clinic:

Provides physicals, vitamins, immunizations, parent counseling, weight and measure for pre-school children of low-income families. Meets fourth Tuesday of each month.

Family Planning Clinic:

Provides comprehensice family planning information and services which include pelvic exams, pap smears, breast examinations, blood pressure, weight, hemoglobin, urinalysis, contraceptive medication, V.D. screening, premarital exams and counseling, meets second and fourth Wednesday evening of each month

Dental Clinic:

Provides screening, cleaning of teeth and necessary dental services to low-income residents of Kalamazoo County between the ages of 18 to 60 years. Clinic is open Tuesday afternoon and Friday morning.

Health Services:

Three Public Health Nurses are available for emergency needs and referrals, outreach, home visits and health program planning.

Senior Services, Inc.

Title VII Hot Lunch Program

Provides a hot, nutritious lunch daily for citizens 60 years and older. Other activities include bingo, crafts, movies, counseling, and aid in the area of taxes, social security, medicare, etc.

Meals-On-Wheels

Provides for up to three nutritious meals a day for homebound senior citizens unable to prepare their own meals. Meals are delivered once a day by volunteers.

Family & Children Services

Counseling:

Provides one-to-one counseling for marital problems, parent-child problems, personal problems, etc.

C.E.T.A. (Upjohn Institute)

Employment Counseling:

Provides a counselor to help persons apply for a job or to receive training under the CETA manpower program.

HOME WINTERIZATION:

Provides for roof repairs, insulation and plastic for windows for homes owned by citizens that meet income guidelines.

EMERGENCY FOOD:

Provides both canned and fresh foods on an emergency basis for people in need.

SENIOR CITIZEN DANCES:

These are held twice a month, usually on Friday night, with live music. Small admission fee is charged. Transportation is provided.

ON-THE-JOB TRAINING:

Provides training in office duties, custodial duties and child care services to young people employed by Y.O.U. and placed in our agency.

EMERGENCY ASSISTANCE:

Provides assistance on a one-time basis for residents in emergency situations: i.e., fuel, utilities, medication, repairs, etc.