The Influence of Marketing Strategies on Employee Perception of a Small Rural Kentucky Hospital

Renee Perkins
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1992
THE INFLUENCE OF MARKETING STRATEGIES ON EMPLOYEE PERCEPTION OF A SMALL RURAL KENTUCKY HOSPITAL

A Thesis
Presented to
The Faculty of the Department of Health and Safety
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
Renee' Russell Perkins

April, 1992
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THE INFLUENCE OF MARKETING STRATEGIES ON EMPLOYEE PERCEPTION OF A SMALL RURAL KENTUCKY HOSPITAL
ACKNOWLEDGEMENTS

I wish to express my appreciation to the staff of Caverna Memorial Hospital, Horse Cave, Kentucky, for their cooperation to complete the questionnaires designed for this research study. In addition, I wish to thank the Hospital Administrator, Jim Kerins, for his support and assistance to implement the questionnaires and to approve necessary budgeting to provide marketing endeavors that served as treatment for this study.
TABLE OF CONTENTS

Page

Acknowledgements .......................................................... iii
List of Figures ....................................................................... v
Abstract

Chapter

1. Introduction ........................................................................ 1
   Problem of the Study ......................................................... 5
   Need for the Study .......................................................... 7
   Assumptions ....................................................................... 10

2. Review of Related Literature ............................................. 12

3. Methodology and Procedures .......................................... 17
   Population and Design ...................................................... 17
   Validity of the Survey Instrument ..................................... 18
   Analytic Framework of Research Data ............................... 20
   Location and Structure of the Research Study ..................... 21

4. Analysis and Interpretation of Data ................................. 24

5. Summary and Conclusions ................................................. 30

Appendixes

1. Questionnaire ..................................................................... 36
2. Letter Regarding Questionnaire ....................................... 38
3. Marketing Plan .................................................................... 39

Works Cited ........................................................................... 43
## FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Format for an Experimental Research Study</td>
<td>18</td>
</tr>
<tr>
<td>2</td>
<td>The Repeated Measures Analysis of Variance Model</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Comparison of the Total Number of Responses From the Fifteen Positively Stated Questions</td>
<td>26</td>
</tr>
<tr>
<td>4</td>
<td>The Seven Participants with the Most Negative Responses on the Pretest as Compared to Their Responses on the Posttest</td>
<td>27</td>
</tr>
<tr>
<td>5</td>
<td>Statistical Analysis Comparing Data for the Pretest and Posttest Including Mean, Standard Deviation, Maximum and Minimum</td>
<td>29</td>
</tr>
</tbody>
</table>
A well-known fact relating to health care in the 1990s is the dilemma being faced by small rural hospitals across the United States. They are now at a crossroads between survival and closure. This thesis addresses the influence that effective marketing strategies can have on the outcome of rural hospitals if such strategies are targeted to the right populations. Although the patients, the community, and the physicians are important target groups, this thesis addresses the impact marketing can have on the employee population and how that population can, in turn, affect community perception.

This is the first study to be done at Caverna Memorial Hospital to indicate employee perception as a result of marketing, and careful research of available literature shows that it may well be one of the first done in a rural hospital in Kentucky on this particular relationship. An important premise to this study is the fact that employees need to know that their success as an employee is dependent upon the hospital and, just as
important, the hospitals' survival can be dependent upon the employees' influence on potential customers.

The study concentrated on outpatient services and took place in a 30-bed hospital located in south central Kentucky. This hospital has economic problems and conditions that make it typical of small rural hospitals across the country.

The instrument utilized for this study is a pretest and posttest questionnaire presented to the entire employee population before and after a period of time when marketing endeavors were undertaken by the hospital. To test the difference of scores between the pretest and posttest, repeated measures Analysis of Variance was used to compare means of both groups. The principle finding was that employees viewed the hospital and its' outpatient services in a more positive light after marketing endeavors had been undertaken.

Since effective marketing endeavors do have the potential of positively influencing employees in a small rural hospital setting, and since hospital employees have the potential of influencing potential customers, hospital administrators may do well to consider budgeting for marketing and directing such marketing tactics to the often forgotten employee population.
CHAPTER 1
INTRODUCTION

The healthcare industry of this decade is at a crossroads. Hospitals of all sizes and in various locations across America are facing an economic challenge to survive.

The challenge stems primarily from lower operating margins and lower utilization. The nation's small rural hospitals are particularly vulnerable to these circumstances due to depressed local economic conditions from struggling farming communities, competition from urban health care providers, inequities in federal payment policies, bad debts, charity care and a poor perception of rural care by the community (Robinson 1987).

Conventional wisdom says that in a declining market, the rich get richer and the poor get poorer. In fact, there is a serious doubt that the small players in a market can expect to thrive or even survive in the long run (Dorner 1990).

More and more, the popular press discusses rural hospitals as though they were an "endangered species," with the implication that the forces leading to their extinction are inexorable. During the 1980s the declining economy of many rural areas led increasing numbers of young adults to migrate to urban areas. The remaining population served by rural hospitals is becoming poorer, older, and increasingly likely to be covered by public insurance programs (Christianson 1990).
In addition, some sources predict that as many as 600 rural hospitals could close over the next few years (Christianson 1990). These issues cause hospital administrators to focus more on the one thing every hospital has in common—the need for greater productivity (Group Nine Marketing 1984). The concept of marketing health care has emerged as one important means to address this need through better utilization of available resources and the generation of new sources of revenue (Group Nine Marketing 1987).

Marketing can be defined as an ongoing process to find out the customers' needs—and what they perceive their needs to be—and then marketing appropriate services to meet those needs. Marketing is also a dynamic business discipline that is in a constant state of change. Stephen W. Brown, president of the American Marketing Association, has stated that "marketing is not limited to activities in which businesses are involved. It can involve the activities of a non-profit organization or the marketing of an idea or a service" (Banach and Bradway 1988). It can even involve marketing a concept such as rural health care.

When hospitals act in the public interest, they act in their own interest at the same time according to Pat Jackson, publisher of PR Reporter. He suggested that all organizations have two common goals. First, the organization must please its public before it can conduct business successfully. Second, it will measure its successes or failures in financial terms. But financial success will not occur until
the public relations' needs of the customers are met (Banach and Bradway 1988).

Unfortunately a significant slowdown in advertising has occurred as a result of financial problems hospitals are now facing, says Steven Steiber, Ph.D., president of Steiber Research Group. Small and rural hospitals which are experiencing the most severe cutbacks in advertising, cannot afford to allocate budget dollars to communications (Droste 1988).

Also, of the eighty-one hospitals in the United States that closed during 1988, more than half were located in rural areas. In 1989 forty-four per cent of hospitals with less than one hundred beds reported inadequate cash reserves to hold off a financial crisis during the next three years (Folger 1990). These figures alone has discouraged hospital management from investing in anything but absolute necessities, and such necessities did not usually include advertising expenses.

A devastating myth for a rural hospital administrator is to assume that patients will continue to choose the local hospital just as they did a decade ago when word of mouth was the foundation of hospital communication. In reality, those days have passed and so have many opportunities for rural hospitals to gain a competitive edge financially.

Failure to implement proper marketing strategy simply opens the door for a more aggressive competitor (Group Nine Marketing 1984). Also, to establish a position for the rural
hospital in the community it is imperative that the customers be identified. The one extremely important category of customers for a rural hospital is the patients, which includes prospective patients as well as current patients. It also includes the patients' family and friends (Hume 1990).

Although it is true that physicians admit patients to the hospital, physicians are customers, too. Physicians must be targets of marketing because they direct patients to the facility and provide both in-patient and out-patient services (Conomikes 1988). A hospital may be only as successful as the physicians on the hospital staff. If the physician is marketed well the potential for greater productivity for the hospital can be expected.

Other customers may include the community-at-large, community leaders, local businesses, clergy, and insurance providers (Hume 1990). Another vital, yet overlooked customer, is the hospital employee. The employee population may, in reality, be the link to the community that can determine to a great degree the success or failure of the hospital and its operations.

Local communities are in a position to make the choice of whether rural hospitals should stay open or close (Tokarski 1988). The support an employee has for the hospital can influence community perception. For example, if the employee does not support the hospital where he or she is employed by utilizing its services or by word of mouth
advertising in a favorably way, the community-at-large may not see fit to do so either. After all, the community may believe that it is the employee who really has the "inside story" in hospital services. Also, the employee should know the hospital's mission, and the hospital, in turn, should treat the employee in a manner consonant with its mission (Weiss 1990). According to Frank R. Gabor, president of Montgomery General Hospital in Olney, Maryland, an employee is a hospital's lifeline, and the happy employee generates the outcomes that hospital managers are seeking—a satisfied patient (Cern* 1989).

Current studies indicate that it may be imperative that a marketing plan for a rural hospital address and promote the services available, the physician staff and the "hi touch" environment. It is also extremely important that the plan direct its strategies toward the impact marketing can have on the employee population and the significance employees may have on community perception of the hospital's ability to meet the healthcare needs of the various publics it serves in an efficient and effective manner.

Problem of the Study

The problem addressed by this research investigation was to determine the impact marketing strategies can have upon hospital employees' perceptions of the hospital and its services. Two subproblems of the study existed.
The first was to design a marketing strategy that would serve to motivate the employee population and indirectly impact community perception and utilization of the rural hospital and its services. The second subproblem was to develop a means of determining the effect such a marketing plan could have on employee perception in a small hospital in rural Kentucky.

The employee population of Caverna Memorial Hospital was surveyed for this study. Caverna Memorial Hospital is a thirty-bed acute care facility located in Horse Cave, Kentucky. It is typical of most small rural Kentucky hospitals, and possibly hospitals throughout the United States, in that it is located in the midst of a farming community with a depressed local economy. It has competition sixteen miles to the east in T. J. Samson Community Hospital of Glasgow, Kentucky, which is a growing 219-bed acute care facility; thirty miles north by Hardin Memorial Hospital in Elizabethtown, Kentucky which is a 300-bed acute care facility; and thirty miles south by two competitive acute care facilities in Bowling Green, Kentucky. In addition, Caverna Memorial Hospital is a victim of inequities in federal payment policies, bad debts, and charity care, just as many other small rural hospitals throughout the country.

This survey was designed to identify employee perceptions of services provided by the Outpatient
Department at Caverna Memorial Hospital before and after marketing endeavors are instituted. The development of a total marketing plan was dependent upon cost and administrative support for the plan. The Hospital Administrator was Jim Kerins who approved the cost of the projected marketing plan and was very supportive of marketing outpatient services and of assisting with this study.

Need for the Study

The need for a research study on the importance of marketing outpatient services of a small rural hospital to promote staff perception is significant for a number of reasons. First, it has been established by marketing experts that effective marketing for a small rural hospital can provide a method for capturing and maintaining the hospitals' position in the community (Roberts and Schumann 1988). The outpatient area currently addresses the needs of more individuals than inpatient services. By taking into account the impact that the hospital employee may have on community perception and utilization of services the marketing plan has the potential to identify realistic opportunities and strategies for survival (Group Nine Marketing 1984).

Secondly, the small rural hospital often does not have the financial or human resources to make needed changes easily. For this reason it is often the Hospital Administrator,
Director of Nursing or a Department Head who functions as the Marketing Director. This is especially true in small hospitals with less than fifty beds (Roberts and Schumann 1988).

Many times these individuals do not have a marketing background and may concentrate on advertising strategies directed to only a segment of the community who may benefit from a single service, such as mammography (Cregar 1989). This study suggests the need and feasibility of employing individuals with marketing expertise for promoting major services to employees as well as to the community. It also indicates the impact good employee public relations has in the community.

A third reason this type of research is significant is because the competition between hospitals for patients is on the rise. Most patients are now able to go to the hospital providing services they have heard the most positive things about, whether it is located in close proximity to their home or one hundred miles or more away.

Finally, customers want alternatives. They can and do make decisions about physicians, hospitals, and services. This fact alone has made healthcare a customer and market-driven business. The customer's choice will be based upon what he has been told or has read about the hospital he selects. What he hears and reads will be a direct result of how well or how poorly the hospital was marketed. In other
words, it is one thing to get the public to realize there is a new service available, but as Sears is finding out with Discover, it is another thing to get them to use it (Silver, 1986).

Therefore, information collected from this study could provide the small rural hospital with a type of ammunition that will allow it to compete more effectively with surrounding and more productive urban hospitals. For example, for Caverna Memorial Hospital an additional two patients a day on a routine basis could mean the difference between survival and closure according to the Hospital Board Chairmen, James Kabler.

A recent study from the American Hospital Association found that some hospital administrators, especially those in hospitals that are the sole community providers, felt they did not have to worry about marketing; they just assumed everyone realized that they provided high quality care (Roberts and Schumann 1988). This type of rationalization is changing, however. Another study centered around 476 small rural hospitals and was conducted in 1987 by the American Hospital Associations Section for Small and Rural Hospitals. This study showed nearly 60% of those facilities were active in some form of marketing (Roberts and Schumann 1988).

This research study may offer some direction for hospital management as it relates to marketing with a special
emphasis on outpatient services in a rural hospital setting. If it can do this it could serve as one factor of survival for a small rural facility that may be facing closure due to a reduction of inpatients as well as other challenges facing rural health care.

Assumptions

The basic assumptions of this research study took into account the following considerations prior to administering the pretest:

1. All employees at Caverna Memorial Hospital will agree to participate in the sample study.
2. The questionnaire (or interviewer) will not bias employee responses.
3. All responses by employees on both the pretest and the posttest will be honest and objective.
4. Adequate funds and administrative support will be available to provide a marketing strategy (plan) that will have enough impact on the employees' perception of the outpatient services at Caverna Memorial Hospital to determine the effectiveness of marketing strategies.
5. The employees' responses on the posttest will not be unduly influenced by their former responses on the pretest.
6. An adequate time span will be allowed between giving the pretest and the posttest to permit a measure of change in the employees' attitude and perception regarding the out-patient services provided at Caverna Memorial Hospital.

7. Participants will read and understand each question and give careful consideration to each response.

Two delimitations were considered as this study was developed. First, the participants in this study were delimited to employees of Caverna Memorial Hospital. One hundred percent of the employee staff including every department of the hospital and the total Department Head and Management staff were surveyed. The pretest was administered in early August, 1990, and the posttest was administered the following December allowing eighteen weeks for the marketing treatment. Secondly, the questionnaire contained direct questions relating only to out-patient services provided at Caverna Memorial Hospital.

A limitation exists because all study participants were employees of Caverna Memorial Hospital and the results of the study will directly reflect the impact of marketing strategies on employee perception only at this facility and only in the outpatient Department.
CHAPTER 2

Review of Related Literature

Review of literature related to the marketing strategies that may influence employee perception and the effects of such influence on hospital survival reiterates the need for and purpose of this research study. Related research information similar to this study in content will be considered first in this chapter. This will include surveys and statistics that indicate the effects of marketing on rural hospital survival, the role of employees as it relates to marketing strategies, and public expectations of hospital care and services.

A discussion of research information related to the methodology of this study will be presented second. The methodology selected for this research study is the experimental method of research. A careful search of available literature on marketing strategies as they relate to employee perception has not provided research similar to this study in both content and methodology.

This is the first study to be done at Caverna Memorial Hospital to indicate employee perception as a result of the influence of marketing. According to a careful study of the literature on this subject, this may possibly be one of the first done in a rural hospital in the state of Kentucky on this particular relationship.
The key to effective marketing and management control for a small rural hospital lies in a detailed analysis of the issues. This is known as market research and includes obtaining as much pertinent data as possible about the location, the community, its people and their specific health care needs and expectations (Rowland and Rowland 1988). Such an analysis is presented in data similar in content to this research study as discussed below.

Rural hospital marketing research is described in one study as "taking the pulse" of the hospital and of the rural community being served by the hospital. This study indicates that a marketing plan directed toward a major service offered by the rural hospital can even provide strong direction for daily operations within the facility (Group Nine Marketing 1984).

Another study published by Modern Healthcare showed that health care marketing budgets per hospital in 1987 rose an average of 24%. This same study suggested that small rural hospitals cannot compete with the marketing budgets and staff of larger institutions and, therefore, should direct their smaller budgets to marketing quality care (Palm 1987). Some hospital marketing authorities have published their conviction that this is the one product that will make the difference in whether the customer will choose the local hospital or the hospital in the next town (Roberts and Schumann 1988).
According to the January-February 1988 issue of *Health Marketing*, it is important to remember that poorly served employees do not provide good customer service. For example, if management treats employee concerns with indifference, then employees may not care so much about their customers' complaints (Mages 1988).

The employee needs to know that his or her success as an employee is truly dependent upon the success of the hospital, and the success of the hospital is dependent upon customer satisfaction and quality care. Organizations that succeed in the 1990s will be the ones that gave the customer what he wanted. If the customers' commitment to the rural hospital is lost on the basis of quality, according to this study, these same customers are going to be very slow to return (Perry 1988).

The marketing department of Alliant Management Systems in Louisville, Kentucky, conducted a study in 1987 to determine patient expectations of hospital services and to provide direction for marketing strategies to be utilized in their managed hospitals. This study included 500 former patients from the previous year plus 120 physicians in the Louisville area. The top three "drivers" of quality according to the 500 patients surveyed were listed as follows and in this order:
The top three "drivers" of quality according to physicians surveyed were listed as follows and in this order:

- Quality of nursing skills
- Full service hospital
- Nurses' attitudes toward patients

This study indicated that the primary expectation by the public and physicians in the Louisville area was centered around "hi touch" care by the nursing staff and not necessarily around "hi tech" types of services. This information showed the Alliant marketing team that nurses need to be kept content and satisfied with their work environment and that "quality" nursing care needs to be marketed to the public (Galvagni 1989).

If this is true in a larger urban environment, it can also serve as valuable insight for the small rural hospital that may not be able to afford the "hi tech" services available in large metropolitan facilities and has to rely more heavily on "hi touch" influences.

In summary, it becomes obvious that if a small rural hospital is to survive well into the 1990s, management must concentrate on marketing high quality ("hi touch") care and
quality services. This type of care cannot be purchased or manufactured -- it must come from within the organization.

**Employee Attitude Assessment**

Other research has been conducted that is similar to this research in methodology. For example, a recent questionnaire on the attitude of hospital administrators in small rural hospitals was conducted by the American Hospital Association. This survey indicated that many administrators see marketing in a small rural hospital as simply a scaled-down version of marketing approaches adopted by many larger hospitals. The same study also showed that this type of rationalization is changing, however, as many health care professionals are beginning to recognize a need for planning and marketing in the rural environment (Roberts and Schumann 1988).

Another study similar in methodology was conducted by Allan Hanson on employee attitudes about drug testing. This study was published in *Personnel* in July, 1990, and consisted of giving a pre- and post-questionnaire to employees regarding their feelings about having mandatory drug testing conducted. Before administering the posttest the mandatory drug testing program went into effect. A comparison of the questionnaires indicated a definite change in the employees' attitudes and morale after the drug testing program began (Hanson 1990).
METHODOLOGY AND PROCEDURES TO DETERMINE EMPLOYEE PERCEPTION

The methodology selected for this research study constitutes a one group pretest - posttest design which is a category of the experimental method of research. This method allows the researcher to test the validity of a hypothesis by measuring the relationship between one or more variables. In this particular study the relationship of the attitudes of rural hospital employees regarding outpatient services was measured to include how such attitudes may be influenced in a small rural hospital by marketing endeavors.

Population and Design

The pre-experimental design allows the researcher to control the pre-experiment so the effect of the variables can be studied effectively. This study began in August 1990 when the total population of employees of Caverna Memorial Hospital were given the pretest to measure the dependent variable. Following this the marketing treatment was introduced. The dependent variable is the attitude of the employee population regarding outpatient services at Caverna Memorial Hospital. This data is indicated on the results of the pretest. The treatment was the marketing endeavors that took place between the time the pretest and the posttest
were given. The posttest was administered at the conclusion of the marketing treatment in late December 1990.

The design of this study is based on the null hypothesis that effective marketing will make no difference in employee perception of a small rural Kentucky hospital. The purpose of this research study is to test this hypothesis to determine if it is tenable. The method of this research will be organized in the format of an experimental research study.

The pretest and posttest utilized for this study are identical. This research tool was tested beforehand in a pilot study (see Appendix 1).

Reliability of the Survey Instrument

The pilot study was conducted in June and July 1990. A pretest and posttest was mailed on June 18, 1990, to thirty-eight Registered Nurses who work in hospitals that have an outpatient and/or emergency department. A letter accompanied each mailing with the following instructions:

1. Complete one questionnaire when this questionnaire is received.
2. Complete the second identical questionnaire seven days later without referring to the first.
3. When both questionnaires are complete return them in the same mailing in the enclosed pre-addressed and stamped envelop.
The participant was also asked to note that all of the questions refer to Caverna Memorial Hospital. They were instructed to answer them, however, as if they referred to the facility where they were employed (see Appendix 2). In addition, as an incentive to complete the questionnaire a seventeen-by-twenty inch Advanced Cardiac Life Support poster prepared from American Heart Association guidelines was included in the mailing for each of them to post in their Outpatient Department or Emergency Room.

A total of twenty-nine mailings were returned containing both questionnaires. All of the mailings were from nurses in upper management positions. It is an assumption that the instructions were followed as presented in this letter.

On August 8, 1990, a computerized reliability analysis scale was run at the Western Kentucky University Computer Lab which showed 0.8237 and a correlation analysis indicated 0.88518 utilizing Pearson Corelation Coefficients. This was considered a sufficient percentage to verify that the questionnaire is a reliable research tool.
Analytic Framework of Research Data

After the pilot study was completed and the questionnaires were determined to be reliable and after the pretest was administered, the treatment consisting of marketing endeavors was introduced. This treatment served as the independent variable and was generated from a Marketing Plan developed for Caverna Memorial Hospital (see Appendix 3). The same test was then administered as a posttest at the conclusion of the treatment intervention.

To test the difference of scores between the pretest and the posttest repeated measures Analysis of Variance was used to compare the means of both groups involved. Figure 2 outlines the formula for repeated measures Analysis of Variance.

\[ F = \frac{V_b}{V_w} \]

- \( F \) = F-ratio which uses the variance of group means as a measure of observed differences among groups
- \( V_w \) = Within-group variance which is the sum of the variances of each of the groups
- \( V_b \) = Between-group variance which is the measure of the variation among the means of the groups

Fig. 2. The Repeated Measures Analysis of Variance Model (Welkowitz, Ewin and Cohen 1982).
This ratio can show the influence of the experimental variable or marketing treatment by using the between-groups variance. It can also show sampling error in the distributions represented by the within-groups variance. In other words, if the between-groups variance is not much greater than the within-groups variance, it may be concluded that the difference between the means could be caused by sampling error. If, however, the F-ratio is substantially greater than 1, it would appear that the difference is likely the result of the marketing treatment and that something greater than chance is operating (Rubinson and Neutens 1987).

Location and Structure of the Research Study

Horse Cave is located is south central Kentucky thirty miles north of Bowling Green and thirty-five miles south of Elizabethtown. The population according to 1989 census data is projected at 2,670.

Caverna Memorial Hospital is located on the southern side of Horse Cave approximately four miles from Interstate 65. This hospital has thirty acute care inpatient beds, two of which can be converted to long-term care (swing beds) if needed and a small, but active Outpatient Department.
Services offered at Caverna Memorial Hospital include: emergency services, surgery, obstetrics, radiology, laboratory, respiratory therapy, outpatient endoscopy, and other outpatient diagnostic services, pediatrics, and coronary care unit services. Eight physicians have admitting privileges including one surgeon, one pediatrician, and six family practitioners.

Approximately 65% of inpatients admitted are insured by Medicare; 20% by Medicaid; 10% are self pay or charity care; and 5% have some type of commercial health insurance. The average daily census for the fiscal year ending June 30, 1989, was 12.3; June 30, 1990, was 12.0; and June 30, 1991, was estimated to be 12.0 (Wolf 1989).

The pretest and posttest for this study was distributed to all employees from every department and every shift at Caverna Memorial Hospital as well as all Department Heads and other hospital management personnel.

To develop baseline data on the employees' perception of Caverna Memorial Hospital a pretest was utilized to gather pertinent data regarding the employees' perception of the quality and need of services provided, and their attitude toward the outpatient staff and their skills. The design of the pretest was based on the Likert method of attitude scale construction. All questions on the pretest were stated in a positive format with the exception of two questions which were stated in a negative format.
The pretest was distributed to all Caverna Memorial Hospital employees on August 10, 1990. It was initially taken to a Department Head meeting where its purpose was explained by the researcher. The Department Heads were asked by the Hospital Administrator, Jim Kerins, to support the study and to encourage their staff to participate to the fullest extent. The pretest was then distributed to all Caverna Memorial Hospital employees.

An explanation of the purpose of this research study was provided to the employee population by the researcher and by respective Department Head personnel with encouragement to be objective and not to discuss the questions with colleagues prior to filling it out.

The questionnaire was distributed again to the same individuals as a posttest on December 18, 1990. During the interim of eighteen weeks between the administration of the pretest and the posttest significant marketing and promotional endeavors were conducted to promote the staff, the services, physicians and especially outpatient services.

To supplement the results of this study a survey was taken on the number of outpatients who utilized Caverna Memorial Hospital. This included outpatient emergency services and outpatient lab and radiology services from January 1989 through June 1991. The purpose of this comparison is to determine if outpatient visits increased after intensive marketing endeavors began in August 1990 (see Appendix 4).
CHAPTER 4

ANALYSIS AND INTERPRETATION OF DATA

The pretest was administered during the first week of August 1990 to the sixty-three individuals employed at Caverna Memorial Hospital. Of these employees fifty-eight returned the questionnaire accounting for 92.06% of the participants.

The posttest was administered during the third week of December, 1990 to a total employment of sixty-two. Fifty-six employees returned the questionnaire which accounted for 90.32% of the total employment.

In an effort to maintain anonymity each participant was asked to write only the last four digits of his/her social security number in the upper right corner of the questionnaire. This number allowed the pretest and posttest to be matched so the researcher could compare the same employees' answers on the pretest to those on the posttest.

Of all of the pretests and posttests returned forty-six (74%) could be matched by the last four digits of the social security number. That is, twelve pretests and ten posttests were returned but did not have a matching number and, therefore were not summarized for this research study. Those questionnaires that did not match were considered to be the result of employee turnover during the time period of this
study or of the employee failing to write the social security number on the questionnaire as requested.

The questionnaire (Appendix 1) has all questions stated positively regarding outpatient services provided at Caverna Memorial Hospital with the exception of questions number four and six which are stated negatively. Figure 2 shows the total number of 1's, 2's, 3's, 4's, 5's, and 0's for all fifteen positively stated questions as answered by the forty-six matching respondents. "No answer" on the questionnaire is indicated by 0. The results on this graph shows an increase in answer number one (strongly agree) on the posttest over the pretest by thirty-six answers. The remaining responses indicated by 2s, 3s, 4s, 5s, and 0s show a small decline on the posttest results as related to results on the pretest. This data shows to some degree that participants provided responses which indicated a positive change of attitude regarding the outpatient services offered at Caverna Memorial Hospital from August to December 1990.

Another interesting observation is that many of those participants who made the most negative responses regarding the outpatient services of Caverna Memorial Hospital on the pretest made more positive responses on the posttest. This is illustrated in Figure 3.

Utilizing Western Kentucky University's Academic Computing with SPSS-X software the reliability analysis scale was run for the seventeen questions on the pretest and rated at 0.7963 or 79.6%. This analysis provided additional evidence that the questionnaire serves as a reliable research tool.
Fig. 2. Comparison of the total number of 1's, 2's, 3's, 4's, 5's, and 0's answered on the 15 positively stated questions on the 46 Pretests and Posttests. The questions were answered according to the following scale: (1) Strongly Agree (2) Agree (3) Undecided (4) Disagree (5) Strongly Disagree
### Column 1

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<td>211 4 1 5 54445355455</td>
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**Note:** Questions #4 and #6 are stated negatively and all other questions are stated positively with answer #1 being most positive for positively stated questions and most negative for negatively stated questions.

**Figure 3.** This chart illustrates answers of the 7 participants who provided the most negative responses on the pretest (Column 1) and compared to answers provided by the same participants on the posttest (Column 2). These consist of all participants who provided one or more answers of 4 or 5 on any positively stated question.
The SAS System for Correlation Analysis indicated a significant difference in the means of the answers provided on the pretest as compared to answers provided on the posttest, as illustrated in Figure 4. The fact that the mean scores went down from the time the pretest was given in August until the time the posttest was given in December indicates that participants viewed the hospital in a more positive light in December than in August. Thus, it is an assumption that this change in attitude is due, at least in part, to the marketing treatment.

Repeated measures analysis of variance was performed via the general linear models procedure. This determination showed the F-ratio to be 4.43 which is substantially greater than 1. The posttest mean (x=26.76; SD = 6.32) was significantly lower than the pretest mean (x = 28.9; SD = 7.05) (F = 4.43; p = .04; dF = 1, 45). Thus, it would appear that the difference is likely the result of the treatment rather than sampling error.

In addition, outpatient utilization by the public changed during this marketing process, as indicated in Appendix 4. Emergency Room utilization decreased in 1991 as compared to 1989 and 1990. However, utilization increased significantly in the Lab and Radiology Departments in 1991 as compared to 1989 and 1990. Such changes, especially positive changes, could be attributed in part to the marketing treatment.
Fig. 4. Statistical Analysis Comparing Data for the Pretest and Posttest including Mean, Standard Deviation, Maximum and Minimum.
CHAPTER 5
SUMMARY AND CONCLUSIONS

A well-known management theory called the "pareto principle" may be instrumental in this study. This principle is sometimes called the "80:20 Rule". That is, 80% of the negativism comes from 20% of the employees, or, stated another way, 80% of the trouble comes from 20% of the employee population (Scholtes 1988).

Health care workers, as a rule, are dedicated and loyal to their workplace and will look for reasons to be proud of and support their hospital. A corporate culture that insures each employee's personal and professional success can go a long way in paving the way for the success of the hospital (Eubanks, 1991). Also, it is important to note that employees often react to the positive or negative attitude displayed by top management personnel (Jacobs, 1989).

Thus, effective marketing endeavors have the potential of having a positive influence on these employees. According to the "pareto principle" this would likely be the case for approximately 80% of those responding to the pretests and posttests. Based on this assumption the other 20% would likely represent those who will look for reasons to criticize the hospital and its services in some manner—if not overtly, perhaps in a covert manner.
The actual results of this study, however, showed the most positive responses (indicated by "strongly agree" and "agree" answers on the fifteen positively stated questions) were provided by thirty-nine of forty-six employees which accounts for 84.78% of the employee population answering on both the pretests and posttests.

Therefore, in this study most of the negativism came from 15% of the employee population. Applying the "80:20 Rule" to this research project, it can be concluded that employee perception and employee reactions have the potential of making a significant impact on the community.

Pat Townsend, a motivational speaker and promoter of quality management spoke at a seminar entitled "Quality" sponsored by Alliant Management Systems in Louisville, Kentucky, on October 11, 1989. Mr. Townsend stated that if a customer, (or employee in this case), is satisfied, he or she will tell six to seven other people. If, on the other hand, he is dissatisfied, he will likely tell twenty-three additional people.

If out of forty-six participants in this study, 84.78% (thirty-nine participants) are positively influenced and tell six additional people in the community, at least 234 local citizens will have the potential of being influenced in a positive manner regarding outpatient services at Caverna Memorial Hospital. If these 234 local citizens each tell six additional people the result could be a sum of 1404 potential customers who are influenced in a positive manner.
If, on the other hand, 15% (seven participants) have negative feelings toward the hospital and each tell twenty-three other people in the community, 161 local citizens may be negatively influenced about coming to Caverna Memorial Hospital or utilizing the services offered at this facility. If these 161 local citizens each tell twenty-three additional people the result could be a sum of 3,703 potential customers who are influenced in a negative manner. This is more than the total population of Horse Cave, Kentucky.

With these types of statistical assumptions it would seem appropriate for hospital management not to ignore the "significant few" sources of negativism among hospital staff members. The role of management to change or influence negative employees in a positive manner will become more and more important as the small rural hospital comes to the crossroads of surviving or surrendering to competition.

It is those decisions made today that will determine the rural hospital's future success or failure, because competing for health care services is now more intense than ever before (Syre, 1988). This intenseness is indicated even in the competition for patients that physicians and hospitals participate in today in the health care marketplace (Higgins, 1988).

The results of this study showed that the employees indicating the most negative attitudes regarding outpatient services of Caverna Memorial Hospital were influenced more positively than the rest of the employee population as shown
in Figure 6. This change has the potential of affecting at least 161 local citizens. In a population of 2,670 in Horse Cave, Kentucky, this accounts for as much as six per cent of the total population of that community. It can be assumed from this study that this six per cent could have been affected negatively rather than positively without having the appropriate marketing treatment such as the marketing activities utilized for this research study.

The aspect of axiology is also assumed in this study. That is, it is believed by many marketing authorities that certain social values exist with employees in health care and social interests and practices need to be identified and considered when developing marketing strategies (Downey, 1986). For example, if an employee feels good about his work and the place where he is employed, he will be more likely to produce better results and maintain a positive attitude. This type of value system and attitude can be contagious and will likely influence more customers positively in a non-verbal way than the "80:20 Rule" could do based on verbal communication.

Health care executives of both large and small facilities are finding themselves in positions where they must possess "presence, charisma, and chemistry" to not only be an effective leader but also to be an effective spokesperson. They must take responsibility to prevent negative press coverage or negative information from getting out of control as often occurs in small rural areas (Droste, 1989).
In summary, the hypothesis that effective marketing can improve employee perception of a small rural Kentucky hospital is assumed to be true. It is also assumed that such employee perception can radiate by both verbal and non-verbal communication that may come from a segment of the employment and may be stimulated by top management.

The intervention was based on appropriate marketing tactics utilized to promote employee perception of the services provided (Kotler and Clarke, 1987). Since marketing is the process of offering quality services and programs to as many persons in a target population as possible (Syre, 1990), the current marketer will be wise to include the employees in the targeted population to allow the facility to reap the most successful results.

It is also becoming more apparent today than ever that marketing directors cannot work effectively alone. They must rely upon the cooperation of others to achieve results. Thus, team development with the employee population could become critical (Syre, 1985).

Failure to market effectively and to market the right services and staff, such as nursing care and nurses, and failure to promote the positive side of health care in a small hospital may allow the segment of negativism to take control (Perry, 1988). Even though the hospital may win a few "battles" from time to time, such as by adding a new physician to the staff or purchasing new equipment, they may indeed lose the "war" if the employee perception is not in support of the local hospital and its services.
Two conclusions can be drawn from this study. First, it can be concluded that effective marketing has the potential of improving employee perception of a small rural Kentucky hospital. Second, employee perceptions and employee reactions have the potential of making a significant impact on how the community perceives the small rural hospital and its services.

Based on these conclusions it is recommended that administrators of small rural hospitals utilize necessary resources to positively influence the employee population regarding the hospital and its services. This type of influence can be accomplished by effective forms of marketing directed specifically to the hospital employee.

As Leah Curtin, editor of *Nursing Management*, said so well, "the sweet smell of success is not always money, often it is hope" (Curtin, 1989). Effective and efficient marketing to the right individuals may offer that much needed ray of hope for the nation's rural hospitals to survive into the next decade.
APPENDIX 1
QUESTIONNAIRE

EACH QUESTION ON THIS QUESTIONNAIRE EXPRESSES AN OPINION OR ATTITUDE TOWARD OUTPATIENT SERVICES AT CAVERNA MEMORIAL HOSPITAL. PLEASE ANSWER ACCORDING TO THE FOLLOWING SCALE:

1 STRONGLY AGREE
2 AGREE
3 UNDECIDED
4 DISAGREE
5 STRONGLY DISAGREE

ALL OF THE FOLLOWING QUESTIONS ARE DIRECTLY RELATED TO THE OUTPATIENT SERVICE DEPARTMENT AT CAVERNA MEMORIAL HOSPITAL:

1. The Outpatient Department of Caverna Memorial Hospital is efficient.
   1 2 3 4 5

2. I would like to see the Outpatient Department expanded.
   1 2 3 4 5

3. The Outpatient Department provides a worthwhile and necessary service.
   1 2 3 4 5

4. I would feel uncomfortable with the care provided if I were admitted to Caverna Memorial Hospital for Outpatient Surgery.
   1 2 3 4 5

5. I recommend the Caverna Memorial Hospital Outpatient Department to others.
   1 2 3 4 5

6. Outpatient services provided by surrounding hospitals are better than outpatient services provided by Caverna Memorial Hospital.
   1 2 3 4 5

7. I believe a patient admitted to this Outpatient Department will receive good care.
   1 2 3 4 5
8. I hear good comments about the outpatient services provided by Caverna Memorial Hospital.

   1 2 3 4 5

9. The clinical staff of the Outpatient Department is adequately trained.

   1 2 3 4 5

10. I am proud of the Outpatient Department of Caverna Memorial Hospital.

    1 2 3 4 5

11. The Outpatient Department provides an important service for this hospital.

    1 2 3 4 5

12. The types of patient services provided in this Outpatient Department are challenging and interesting to employees.

    1 2 3 4 5

13. The outpatient services have contributed to the progress of Caverna Memorial Hospital.

    1 2 3 4 5

14. I would utilize the Outpatient Department at Caverna Memorial Hospital if I needed this type of service.

    1 2 3 4 5

15. I feel motivated to tell others in this community about the Outpatient Department of Caverna Memorial Hospital.

    1 2 3 4 5

16. The Outpatient Department of Caverna Memorial Hospital provides good quality care.

    1 2 3 4 5

17. If I am given a choice of location for outpatient care I will choose Caverna Memorial Hospital.

    1 2 3 4 5
June 18, 1990

Dear

This summer I have started working on my thesis for the Masters program at Western Kentucky University. The subject of this research deals with marketing rural health care, especially in relation to outpatient services in a small rural hospital.

Before I can utilize the enclosed questionnaire for employees at Caverna Memorial Hospital I need to conduct a pilot study to test its validity. To do so I must contact 30 reliable nurses such as yourself who have an outpatient and/or emergency department in their hospital and ask them to do the following:

1. Complete one questionnaire when you receive this mailing
2. Complete the second identical questionnaire 4 to 7 days later without referring to the first.
3. When both questionnaires are complete return them in the same mailing to me in the enclosed self-addressed stamped envelop.

All of the questions refer to Caverna Memorial Hospital. Please answer them, however, as if they refer to your facility instead of Caverna.

Your answers will be strictly confidential. It is not necessary to sign either questionnaire. I do, however, need to have both questionnaires returned in the same envelop so I can make appropriate comparisons for the study.

I will appreciate it so very much if you will take time from your busy schedule to assist me in this pursuit. To show my appreciation in a small but hopefully useful manner, I’ve enclosed a "Cardiac Arrest Chart" that you may want to post in your Emergency Room.

Thank you so much for your help.

Sincerely,

Renee' Perkins, RN
Director of Nursing

Encl: 1. 2 Questionnaires
2. Self-Addressed Envelop
3. Cardiac Arrest Chart
APPENDIX 3

MARKETING PLAN

Outline
Caverna Memorial Hospital
Outpatient Services
August - December, 1990

I. Caverna Memorial Hospital Newsletter:
A six-page hospital newsletter will be mailed to 989 residences in Hart and surrounding counties every three months beginning in September 1990 for the first edition and December, 1990 for the second edition. Contents of the Newsletter will consist of health information, hospital services, outpatient services and physician promotions.
Projected Cost: $1600.00

II. Community Activities:
A. A free Health Clinic will be set up at the Hart County Tobacco Festival on October 26 and 27, 1990. This clinic will provide coronary risk factor information to participants. Free outpatient Laboratory services for cholesterol and blood sugar testing and blood pressure checks will also be available. Over 1200 people generally attend this community festival every year and over 200 participate in the complete health clinic.
Projected Cost: $750.00
B. Community Talks/Presentations:

1. A presentation on outpatient services for the Horse Cave Woman's Club is planned for August by the Hospital Administrator and for November by the Director of Nurses.

2. The Hospital Administrator, Director of Nursing and Chairman of the Board of Trustees will meet with the Horse Cave Rotary Club to discuss Outpatient services in October.

C. An educational seminar on child abuse and the role of the Emergency Department and area schools will be presented by a local Pediatrician and sponsored by Caverna Memorial Hospital and the Area Health Education Center (AHEC) — Nov. Projected Cost: $50.00

III. Radio Promotions:

A. A bi-weekly radio health promotional tip with a follow-up ad on Caverna Memorial Hospitals Outpatient Services will be broadcast beginning in August.

B. Radio promotions of Caverna Memorial Hospital's Health Clinic will be planned. Projected Cost: $120

IV. Newspaper Articles Are Planned As Follows:

A. Free Outpatient radiology services to x-ray Halloween candy on October 31.

B. Article promoting Health Clinic at the Tobacco Festival and follow-up article indicating summary of results of outpatient testing and risk factors.
C. Article regarding nursing employees from Caverna Memorial Hospital who are now enrolled in nursing school and working toward nursing degrees. This article will promote the "high touch" aspects of rural care.

V. Newspaper Ads:

A. Promotional ad for Thanksgiving and Christmas greetings
B. Ads placed in area High School Yearbooks with Outpatient services included. Projected Cost: $275.00

VI. Educational Activities:

A. The "Spirit 1" Coronary Care Ambulance from The Medical Center will visit Caverna Memorial Hospital in October to provide community and staff education. A news article describing this service and this activity will be provided.
B. A Newborn/Infant Advanced Life Support Class for outpatient and Obstetrical Registered Nurse staff will be sponsored by the hospital in November. News articles featuring this class will be prepared. Projected Cost $100

VII. Promotional Flyers/Favors:

A. Flyers will be prepared and distributed at the Tobacco Festival entitled "When Should I Visit the Emergency Department." This will feature the Emergency staff of Caverna Memorial Hospital. Projected Cost: $75.00
B. Pencils, telephone stickers, yardsticks, and helium balloons promoting the hospital and its outpatient services will be distributed at hospital functions: $650.00
Comparison of Outpatient Emergency Room and Outpatient Lab and Radiology Visits from January 1, 1989 through June 30, 1991


