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Hospitalized patients and their use of communication media

Gordon, Deanna Gagnon, Ph.D.

The Ohio State University, 1993
HOSPITALIZED PATIENTS AND THEIR USE OF COMMUNICATION MEDIA

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the Graduate School of The Ohio State University

By

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HOSPITALIZED PATIENTS AND THEIR USE
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By

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The Ohio State University, 1993

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This naturalistic investigation was conducted in a hospital setting, where individuals have limited options to choose rewarding experiences. Communication media, such as the telephone, television, and print material have the capacity to provide gratifying experiences for hospitalized patients. The media entertain, inform and compensate negative states. A convenience sample of 60 patients was recruited from 2 medical units and an orthopedic surgery unit. Data collection techniques were triangulated, with data gathered through media use logs and interviews and from the respondent's medical record. Techniques for analysis were triangulated using qualitative and quantitative procedures. The television was the dominant medium in the therapeutic environment. The most frequent choice in television programming was news and information, with comedy programs ranked second. In explaining their media choices, patients more often cited transient gratifications associated with intellectual stimulation and arousal/enjoyment over compensatory motives.
The telephone was used primarily to keep intact psychological neighborhoods with family and friends. A correlation performed between the number of visitors and the number of phone calls proved positive. The telephone was often used to transfer information at times of uncertainty, such as to report changes in medical progress. Differences in media use between those in private and those in semi-private rooms were not observed in analyses using t-tests. An ANOVA analysis was conducted to determine factors associated with greater use of media. Age, race, physical mobility, and mood day 1 * gender proved to be significant. Media use tended to decrease with increasing age. African-Americans were heavy users of media. Dysphoric males were the heaviest users of media, whereas females in negative moods tended to avoid the media. Also, those who were more dependent physically were apt to use more media.
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CHAPTER I

COMMUNICATION MEDIA AND THE HOSPITAL SETTING

INTRODUCTION

A casual glance into patient rooms on many hospital units shows that television sets and telephones are in place for the patient's convenience. An observer will note also that these media are used relatively frequently. During idle hours of hospitalization, media are an enticing distraction and offer a change of pace in rather mundane surroundings. Though individuals vary in arousal needs, they lean toward an optimal level of stimulation. Research evidence is convincing that television exposure is linked to an individual's need for prompt satisfaction with stimulation from the environment (Donohew, Finn, & Christ, 1988). On the hospital unit, communication media offer consolation from routinized activities, time in solitude, and minimal contact with the outside world, yet empirical inquiry as to their use by hospitalized individuals is scarce.

The intention of this research is to uncover preliminary data about hospitalized patients' use of communication media. In this literature review, two bodies of literature will be integrated. The field of mass communication, specifically media uses and gratifications theory, provides the springboard for the study of the hospitalized audience and their use of media. As such, the hospitalized audience is believed to be constrained with limited options for the exercise of choice in general. An abundance of time may set in motion psychological and social forces inclining the patient toward the use of communication media for gratifying experiences. Background information for this study of the
audience within the social context of the hospital is derived from the nursing literature, concentrating on information germane to patient experiences.

Thus, what is known about select patient characteristics will be incorporated into this report. This paper opens with a section describing the atypical experience of hospitalization and progresses to a section detailing options for choice and constraints affecting these choices. Communication media enhance options for choices of activities that the patient may find gratifying. There is evidence to suggest that individuals may selectively expose themselves to particular media programming fare based on internal and external need states. To illustrate, one’s inner world may lack stimulation and the outer world may be devoid of captivating or suitable activities; thus, a person may be inclined to rearrange conditions to create a more satisfactory environment. Media offer alternatives for arranging such an environment. The chapter concludes with a discussion of the privacy needs of patients and the potential of communication media to meet these needs. Patient media use may be determined, at least in part, by the presence of others in the therapeutic environment.

ON THE NATURE OF HOSPITALIZATION

Lindlof (1986) points out three traits typifying institutions: activities are routinized, residents are treated uniformly, and a singular practical plan is hierarchically enacted. At the same time, chances for personal affiliation and contact with the outside world are diminished, as is the ability to exert willful control over privacy, freedom of movement, and affiliation with those of one’s choosing.

As social institutions, hospitals exemplify these qualities. The temporary residence becomes a room assigned on a unit which is one of many such entities constituting the organization of structure of the hospital. On admission to a hospital, a high degree of personal freedom is surrendered to an institution mandating behavioral constraints by severely limiting options for choice. For example, meals are served on schedules
determined by the hospital. The patient is not free to leave the premises without an order by the attending physician. Even the personal care routine is disrupted with many of the hygiene activities occurring in the morning hours. Often the patient must shed personal clothing and don hospital attire. Moreover, many pay a social price in regard to separation from family, friends and the neighborhood.

Enactment of the Patient Role

Role enactment, or acting the part of a patient, is contingent on individual temperament as well as the nature and course of the pathological condition. Hospital admission requires adoption of behaviors befitting the institution itself, as well as strategies for coping with the illness. Given the vast range of individual variation, a possibility for divergent media behaviors exists. Before addressing the issue of choice in media behaviors, preliminary information about the patient's response to the experience of hospitalizations will be presented.

Although illness and hospital admission is considered to be very stressful, Wilson-Barnett (1979) points out that little empirical investigation has been conducted relative to the patient's emotional response to hospital admission. She notes that the patient worries about the uncertainty of the illness trajectory as well as the ensuing treatment regime. Moreover, the patient may be apprehensive over a new role in unfamiliar surroundings.

Personal experiences and circumstances vary on different hospital wards. Patients on surgical wards have negative emotions associated with uncertainty over surgery and the anticipation of postoperative pain. Following surgery, notes Wilson-Barnett, psychosis and disorientation are not uncommon. Contributing to the disorientation are mechanical noises, restricted contact with familiar individuals, and limited mobility. Johnson, Dabbs, and Leventhal (1970) studied surgical patients in their quest to identify psychological factors associated with patient welfare. They discovered that fear arousal,
highest on the day of surgery, declined steadily following surgery, with lethargy con­forming to the same pattern. Lowest on the surgical day, anger rose on the day succeed­ing and decreased over the next two days until it increased the fourth postoperative day. The emotion of happiness increased over the hospital course.

A different scenario is witnessed on medical units, according to Wilson-Barnett (1979), where patients are more anxious on the days special tests are ordered. Medical tests evoke feelings of uneasiness because often they require an anesthetic, a specialist physician and sometimes observers, unfamiliar equipment, and more than 15 minutes for completion. Moreover, testing procedures may be embarrassing. About half the patients report discomfort during the procedure, but more report unpleasant after-effects (Wil­son-Barnett, 1985).

The experience of being hospitalized may cause an individual to regress and become dependent. Robinson (1984) claims that the task oriented nature of hospital staff may signal to patients that tasks are of utmost importance and that social interaction is of secondary import. Consequently, symptoms and bodily needs take on a sense of ur­gency, with the patient believing that talk about physical needs is a legitimate topic of conversation with hospital staff. Patients rarely tell a nurse that they need a companion or partner in conversation, rather they request medication or physical manipulation of some sort. Robinson reasons that because they are not comfortable verbalizing their fears, most are likely to convey this information as a somatic complaint, to hide the emotion, to deny the feeling or to become angry. Cultural norms are more tolerant toward females who express fear than of males; hence, males tend to hide the emotion.

As well, there are media studies indicating gender differences permeate media use. For example, Kubey and Larsen (1990) found that the adolescent boys responded more favorably to the newer media of, music videos and video games than did girls. Gantz and Wenner (1991) conducted research on television viewing of sporting events and
events and concluded that women viewed for companionship, sharing the social situation with family and friends, whereas males sought the getting psyched or arousal motive and unwinding dimension associated with watching televised sporting events. Similarly, gender differences in media use may be operative in the hospital setting as well.

S. L. Roberts (1978) attests to the stressful impact of hospitalization, as one surrenders to another control over one's own body. Also, the patient who is unable to explore physical surroundings may feel powerless. Psychologist Ellen Langer (1983) argues that intrinsic to human beings is the motivation to take charge over the environment. Langer and Piper (1988) observed that in a nursing home situation, television viewing affords the greatest option to exercise control in that residents decide whether or not to turn on the set, choose the channel, make images appear and disappear, change volume, and adjust color images. Likewise, in the hospital environment, communication media supply the greatest opportunity for the exercise of choice and, therefore, control over the environment.

**THE CHOICE CONSTRAINT MODEL**

Communication media are typically construed as means to disseminate messages through visual channels, as with print materials, and by means of electronics in the form of visual and/or aural representations. Electronic media include the television, the telephone, and the radio. Messages intended for consumption by mass audiences are disseminated by way of television and radio. Note that even though the telephone is an electronic medium it is not considered a mass medium, because messages transmitted by telephone wires are not directed at the masses but rather at a specific individual user of the medium. Stated differently, the telephone is unique in that it is an electronic medium but the focus is on interpersonal rather than on mass communication.

Applied to the hospital setting, for many confined patients, a multitude of media use opportunities present. Not only are many hospital rooms equipped with a telephone and
a television set, but also items such as books, newspapers, radios and headsets may be imported. Media are readily available, easy to use, have the capacity to fill time in a unique way, and may well prove to be gratifying experiences. Additionally, communication media may provide cognitive stimulation, entertain, and compensate the user's aversive affective states.

Fischer, Jackson, Stueve, Gerson, Jones, and Baldassare (1977) advance a choice-constraint model portraying human actors who make choices from finite resources under conditions of constraint. Their model is applied to this inquiry to construe media use as choice under unique constraints at work in the patient's environment. Choices and constraints, as discussed in the choice-constraint model, are a function of the resources at one's disposal. To illustrate, constraining influences depicted in the preceding paragraphs, such as inflexible hospital schedules and surrender of a significant portion of one's personal freedom, limit options for choice.

To exercise choice, essential resources (generally conceived of as time, money, health, and the like) must be available. When these are limited, so is choice. The patient in the hospital usually has an abundance of time as a resource, as well as the freedom from obligatory duties that consume the resource of time. However, this must be balanced against other factors, such as the cost associated with procuring the object of interest. For the hospitalized patient, costs may be incurred as a consequence of compromised health status. To illustrate, a patient whose eyes are highly sensitive to light is unlikely to select the medium of television for relaxation purposes.

Thus, the concern of this research is the exercise of choice manifest in the use of communication media by hospitalized patients. A bedfast patient is most severely restricted and may perform only the activities that can be achieved from that posture. Included may be gazing out the window, reading a book, limited socializing, praying, watching television, listening to radio, writing a letter, and resting. A patient who is
mobile can perform these same activities but has the option to ambulate around the room or roam the hospital corridor. Communication media, often present in the therapeutic environment, tender occasions for the exercise of choice by patients.

In conclusion, media use behaviors by patients in the hospital are nested in surroundings providing few alternatives for the exercise of choice. The field setting of the hospital environment presents an intriguing opportunity to investigate choice under constraint as the model relates to mass communication research. Hence, the first research question arises:

Question 1: What types of communication media do hospitalized patients choose?

1a. In addition to the media supplied in the hospital setting, what media are brought into the hospital by patients or their visitors?

1b. How do media use patterns differ by time of day?

1c. What types of content do patients select for each medium?

COMMUNICATION MEDIA USES AND GRATIFICATIONS

Assuming that hospitalized patients are deprived of daily activities that offer rewarding or satisfying experiences, such as cooking a favorite food or social gatherings with friends, the question arises as to what gratifying experiences may be accessed from within the confines of a hospital room. Relative to the rewards inherent in media use, the theoretical construct of media uses and gratifications provides the backdrop for explaining associated motives. Diverse needs prompt individuals to seek sources of gratifications, many of which can be fulfilled through communication media. Palmgreen, Wenner, and Rosengren (1985) assert that the media uses and gratification construct is built on the following assumptions. First, the audience is presumed to be active and goal directed. The medium user may select from other means of need satisfaction and manifests initiative culminating in choice. A host of gratifications can be satisfied through media consumption. Finally, media content alone cannot be used to foretell gratification,
precisely since the characteristics of the medium dictate the extent to which needs may be gratified based on time influences, content, and context of medium use.

Averring that gratification is accountable for many of the choices associated with message and channel selections, Charles Atkin (1985) applies a cost-benefit analysis to interpret media behaviors. Message selection is based on the individual’s perception of what will be rewarding and transcend the disadvantages associated with procuring the object of interest. The benefit accompanying media use is the fulfillment of pleasure in which choice is associated with transient satisfaction resulting from intellectual stimulation and emotional arousal. Compensatory motives exist as well and are guided by fluctuating deficiency states, which the individual strives to overcome. Deficiency related motives, as identified by Atkin, include tension relief; boredom; relaxation; companionship as a way to relieve loneliness; and escape from psychological or social problems. Atkin acknowledges that the costs incurred include demands on physical energy, cognitive effort, time, money, and psychological detriments, such as guilt, irritation and uneasiness introduced by ambiguous messages.

Conway and Rubin (1991) criticize uses and gratifications studies for negligence in methodically coupling gratifications with their social and psychological antecedents. They argue that distinguishing psychological precursors is germane to explaining and predicting television use motives. To address this concern, they surveyed 331 individuals, assessing psychological factors, television viewing motives, and control variables (demographic variables). The two levels of viewing were identified as ritual and instrumental. The ritual or diversion level is associated with the use of television to occupy time, whereas the instrumental level is characterized by purposeful goal-directedness. They found that the ritualized viewing pattern was exhibited in younger respondents who used television to escape and pass time; this was especially true for females. Education and occupation were unrelated to motives. Robust psychological indicators for
television viewing were anxiety, creativity, parasocial interaction, and the disinhibition (party­
ing and social drinking) dimension of sensation seeking. The psychological variables and
associated television viewing motives were cataloged accordingly: sensation seeking was
linked to escape and pass time motives; anxiety was accompanied by the pass time, self­
enhancement, and escape motives; creativity was related to relaxation and information motives;
parasocial interaction was linked to motives of relaxation, entertainment, information, and pass
time; and assertiveness united with the self-enhancement motive.

Finn and Gorr (1988) analyzed the consequences of social support and social isolation on
television viewing motivations and discerned that those with good social support systems used
television selectively for mood management, while those with low levels of social support used
television as a remedy to compensate social deficiencies. Social compensation embodied
companionship, escape, and pass time/habit motives. Stimulation needs facilitating mood
management encompassed the motives of relaxation, entertainment, arousal and information.

Recent emphasis in media uses and gratifications research has shifted from the total
configuration of audience, goal-directedness in medium and content selections, and associated
gratifications to investigation of smaller segments of the model. For example, some research­
ers have probed the phenomenon of cognition as it relates to watching television programming
(Armstrong & Greenberg, 1990; Grimes, 1991; Hawkins, Pingree, Fitzpatrick, Thompson, &
processing literature to examine involvement as it relates to watching local news broadcasts.
Encompassing cognitive participation as well as emotional response to a message, involvement
as an aspect of audience activity is important because of its relationship to media uses and
gratification. Perse found that the social utility motive for media use was associated with
intellectual involvement and the emotion of anger, whereas diversionary motives were more in
line with feelings of happiness.
In contrast, the focus of this research will be on the uses and gratifications model as a whole. The individual user, i.e., the hospitalized patient, will be considered relative to the social setting and under the constraints imposed by illness and hospitalization. The relationship of internal states as well as social influences on media use in the hospital surrounding will be assessed.

The Telephone

As discussed earlier, the telephone is uniquely set apart from other forms of electronically mediated communication in that it is a medium that supports interpersonal communication. Readily available to most patients, the telephone warrants attention as an alternative medium. Distinct from other communication media, it suffices as proxy for face to face interaction with another in a remote area. According to Reid (1977), the telephone has 2 distinct features. First, it transcends time zones and geographic spaces, permitting access to those not physically present. Secondly, although no visual image is transmitted, interaction over telephone lines affords a psychological comfort associated with the human voice (Cherry, 1977).

Despite the value of the telephone and its high level of penetration, it is a taken for granted medium, encountered early in life and regarded as part of nature (Pierce, 1977), yet it has received surprising little attention from communication scholars. Since telephones are readily available to most hospitalized patients, of consequence to this inquiry is a survey conducted by Wurtzel and Turner (1977) in Manhattan, where over 90,000 Bell Telephone customers were without service for as long as 23 days. Absence of the telephone left residents feeling less connected to and in charge of their surroundings. They found that normally over half of the respondents used the telephone 4 to 6 times daily, and 90 % deemed the phone a necessity. The phone plays an irreplaceable social role in maintaining a psychological neighborhood with primary social relations, i.e., family and friends, thereby diminishing feelings of loneliness and enhancing a sense of security. Without the phone, residents reported feeling uneasy, isolated and less in
control of the environment. In its absence, few people turned to other forms of commu-
nication as a functional alternative, as there is no substitute for the immediate interaction
capacity of the telephone. The investigators concluded that one’s social reality consists
of symbolic proximity nurtured by instant contact, such as that provided by the tele-
phone, rather than by habitation of contiguous space. For the patient confined to the
hospital, then, the telephone as a medium may be an important way to preserve one’s
psychological neighborhood.

Media Use in Health Care Settings

Blumler (1985) advocates tracing social origins of gratifications using specialized
samples of individuals at crucial junctures in their lives. He cautions against assigning
homologous motivations and gives the example that even diversion seekers are a heter-
genous lot. In a similar vein, this research centers on the specialized group of hospital
patients who are under a multiplicity of constraining influences: narrowed physical
parameters; loss of personal freedom; altered health status; and disruption of daily
activities and social routines.

Research on patient initiated use of communication media for amusement, arousal or
learning purposes is rare. Perhaps the most comprehensive study is one conducted by
Rubinstein, Fracchia, Kochnower, and Sprafkin (1977), who surveyed staff and directors
from hospitals comprising the New York State Department of Mental Health. Staff
disclosed that television made it possible for them to do their jobs better by keeping a
fairly large group of residents occupied within the same locale, as television sets were
situated in dayrooms where residents congregated. Television sedated upset patients
and promoted compliant behavior. Heavy television viewers were regarded as less
troublesome than the average patient and newcomers to a ward were distinguished as
watching more television than those who had been there for a while. Institutional direc-
tors believed that the television had the most value for geriatric, socially inept, and
chronic schizophrenic patients. Chronically ill and elderly were disinclined to watch
television. Interestingly, one-third of the patients in the investigation included the con­
tent of television in their delusions.

Select studies have focused on the elderly in general, who are often regarded as
living under the constraining influence of social deprivation. Findings converge on the
importance of television as a social resource for them (Cassata, 1967; Graney and
elderly residents in the convalescent setting of a nursing home with an adjacent board
and care living facility. They concluded that regardless of living arrangement, watching
television was an important activity. The total sample of 215 residents in the communal
living facility averaged 3.41 hours of daily viewing, which peaked at 7 P.M. Most
viewed were news and public affairs programs. Game shows, dramas and situation
comedies were also popular choices. Men viewed slightly more than did females and
favored the hours between mid morning and early evening, while women preferred early
evening and nighttime hours for watching television. A sharp difference existed with
respect to living arrangement, with convalescent care residents viewing slightly over 4
hours of television daily and residents in board and care watching less than 4 hours a
week. The convalescent was engaged with the medium during daytime hours and the
boarding population tended to view after 6:30 P.M.

Directly related to this particular inquiry is a study conducted by Rubin and Rubin
(1981), who reasoned that the three major factors influencing increased television by the
aged apply to hospitalized populations. These include more leisure time, sedentary
lifestyle, and fewer social ties. Interviews lasting 3 hours each were conducted with 128
medical and surgical patients. The scholars explored the relationship of viewing motiva­
tions between younger and older adults. Motives for viewing television were classified
according to entertainment, pass time, habit, social interaction, information and learning,
relaxation, companionship, escape/forget and specific program content. Categories of program preferences entailed news/information, drama/adventure, movies, variety/music, comedy, sports, game shows, children’s shows, talk/interview, and daytime serials.

Although information was collected as to the patient’s age, sex, occupation, and length of hospital stay, the only demographic variable that consistently related to viewing patterns was age. The researchers used the descriptive “age” relatively and referred to those under 60 years of age as young; the older group contained those ranging from 62 through 93 years of age. Relative to viewing motivation, age and home viewing motivation were significantly related. Both age groups cited the entertainment motive as primary, but the older respondents cited the pass time motive more frequently. Younger individuals exhibited a greater propensity toward the relaxation motive. Conversely, in the hospital environment, viewing motivation between the two groups was not statistically significant.

Their findings upheld the deficit related motives prompting medium use by hospitalized patients. In their sample, the primary motive of the patients was to pass time; to relieve boredom ranked second as to motive associated with medium use. A similar pattern evolved with program preferences. In the home setting, older viewers preferred daytime serials, variety/music, game shows, and news/talk programs; younger viewers fancied movies, comedies and sports. However, in the hospital setting, both groups were attracted to comedy and news programs. This study did not take into account the relationship of other variables, such as mood, pain, and presence of a visitor, though these variables may well be related to media use.

In conclusion, this inquiry focuses on the use of media by hospitalized patients and centers on the alternatives for media choices existing within the confines of the hospital room. Since the dominant communication media are the television and the telephone and empirical data as to patients’ use of these media are lacking, they are the focus of the second research question:
Question 2: What are the major gratifications associated with media use by the hospitalized audience?

2a. What particular gratifications are associated with the particular media of the television and the telephone?

2b. What gratifications are associated with a particular television program type?

SELECTIVE EXPOSURE

Surmising that individuals function hedonistically, elevating the pursuit of pleasure as good, the special theory of selective exposure falls beneath the rubric of the media uses and gratifications construct. Dolf Zillman (1988) derives the theory from the behavioristic notion of operant conditioning and proposes an affect-dependent stimulus arrangement. Intrinsic and extrinsic stimuli are believed to predispose affect. Insofar as environmental stimuli, not only do they predispose affect, but also they are amenable to some degree of control. Representing artificial stimuli, media can be mastered and are more malleable than are other environmental features. Hedonistic forces are at work prompting the individual to manipulate the environment in order to maximize gratifications and minimize aversions. Through operant conditioning, people learn to manipulate their surroundings, though they may lack conscious awareness of their behaviors. Stimulus arrangement may be either active or passive. Active involvement requires high energy, such as is exerted in skiing or jogging. Travel is another form of active involvement requiring less physical exertion, yet allowing choice from a variety of places which hold the possibility of affecting mood states. Additionally, mood can be altered without leaving a room simply by changing activity. For example, some people relax by working puzzles. Moreover, exposure to representations of environments, such as those portrayed in the media, may fulfill the same end. Media can transport people to other surroundings with minimal demands on their energy. Users of communication media can
access a plethora of symbolic representations impulsively or after having deliberately planned their activities. Audio, visual, and audio-visual sensations are within one’s control.

In summation, as applied to the use of communication media, the affect-dependent stimulus arrangement proposes a reification of environmental features to decrease aversions and enhance gratifications. The research of Bryant and Zillman (1984) indicates that individuals make intelligent choices in media programming. They contend that selections are made mostly intuitively, i.e., spontaneously as by instinct, but that some selections are made in accordance with an understanding of the personal circumstances. Bryant and Zillman, after inducing states of either stress or boredom in their research subjects, allowed them choices of select videotapes and observed that the stressed subjects were drawn to relaxing fare, whereas the bored subjects watched more exciting programming. Similarly, Kubey (1986) noted a relationship between dysphoria and media selection. His findings point to a relationship between heavy television viewing and being alone and having unstructured time. Having less education, less affluence, and being either separated or divorced also contributed to heavier viewing. The exception to this were affluent married men who tend to be heavy media users; Kubey reasoned that this may be so because these men have the discretionary time to devote to watching television. He concludes that, “...findings support the view that personality dispositions and internal states are more likely to dictate media use than media are likely to alter moods and features of personality. Hence, TV viewing is a way to escape uncomfortable affect rather than a cause for the dysphoric state” (p. 121). Further, an investigation conducted by Kubey and Csikszentmihalyi (1990) indicates that those persons experiencing dysphoria during their daily routines are apt to be heavier users of television during the evening.
An opposite phenomenon exists as well. There are conditions under which television programming is avoided. Zillman (1985) found that when exposure to programming cannot render prompt relief or escape, subjects avoid the media. Research conducted by Christ and Medoff (1984) tested the notion that subjects would choose media to ease aversive states. They noted that subjects who were annoyed exhibited non-attending behaviors toward the television by gazing out the window, walking about the room and reading the newspaper. Christ and Medoff concluded that annoyed subjects ruminate about their aversive states and are too preoccupied affectively to seek out programming.

In some cases, research findings suggest a biological basis governing mood and, consequently, media choices. Meadowcroft and Zillman (1985) monitored 105 female college students for several weeks, carefully plotting the phase in the menstrual cycle for each and relating this to the subject's self-report of preference for comedy programming. Hormonal variation across the menstrual cycle is marked with diminished levels of estrogen and progesterone during the premenstrual and menstrual phases. This is associated with irritability, anxiety, and depression. The investigators noted that during these phases subjects showed a distinct preference for comedy. During the remainder of the cycle when hormones offered anesthetizing protection, the subjects exhibited a lower preference for comedy.

Likewise, Helregel and Weaver (1989), conjectured that using media and expending minimal resources, pregnant females could effectively use television programming to enhance mood states. They intercepted their subjects in obstetrician-gynecologist offices and sent forms with them to be completed at home. Questionnaire items included media behaviors, types of moods, outside activities, and lifestyle factors. Women were stratified into 3 groups - non-pregnant, pregnant, and new mothers; pregnant females were further subdivided into 8 groups bounded by weeks of gestation. Since hormonal variation throughout the gestational period is marked, mood changes are significant.
During gestational weeks 25 through 28 when anesthetizing hormones are high, respondents showed a strong preference for action adventure programming. When hormonal influences predisposed dysphoric states, however, the women tended to select comedy programming. The researchers concluded that women learn the affect-dependent stimulus arrangement incidentally. Women having borne a child were quicker to manage negative states by selecting comedy, whereas those pregnant for the first time did not seem to appreciate the value of comedy till later in their pregnancies.

Assimilating Theoretical Perspectives

The media uses and gratifications construct traditionally attributes media use to social and psychological influences. As described, Zillman extends this viewpoint, alleging that physiological states dictate media use. Females pregnant for the second time, for example, are said to learn an affect-dependent stimulus arrangement which directs their attention to comedy programming when moods are negative and action adventure programming when levels of anesthetizing hormones are high. The position that internal and external circumstances regulate media use is deterministic, although a choice-constraint model presuming freedom of choice was depicted as the rationale for media selections in the hospital setting.

To address the ambiguity and seeming discrepancy between the divergent perspectives, James Beniger (1986) posits a teleonomic perspective. He maintains that a purpose or goal directedness begetting organization distinguishes living beings who process information to achieve control. Society means organization, evident at the molecular as well as the organismic levels. The living being functions as an open system in exchanges with the environment to sustain life. As applied to human society, there is continuous exchange with the environment. Social systems, defined by individuals, families, groups, and organizations, can remain autonomous, though there must be exchanges among them. Coordination and control functions of the system hinge on communication and
information processing, the amount of which depends on population size, organizational complexity, position in space and the amount and speed of information processing. Control entails intentionality implied by movement toward a goal. Beniger introduces the notion of a “program,” which is information arranged beforehand that functions as a guide to behavior. Prearranged entities, programs are teleonomic, implying control and precluding the need to explain behaviors in terms of planning, purpose, and consciousness. Teleonomy defines behavior on a larger scale, with programming on the level of either the individual or an aggregate, wherein entities are interconnected. Subsisting at various levels, programs take material form, such as genetics and culture. More specifically, genetic programs are encoded at the cell level, cultural programs abide in the central nervous structures defining social conventions, and organizational programs are expressed through laws.

Beniger states, “Teleonomic explanations are also useful in reconciling theoretical approaches that might seem mutually exclusive but which in fact are merely pitched at different levels of control” (p. 42). Since individuals participate with the environment and process information to attain control, the choice-constraint model demonstrates that choices are made under constraining influences. Thus, choices are attempts for control executed through preplanned programs guiding behaviors. Moreover, as the programs are predetermined, deterministic nature of the media uses and gratifications model is accommodated as well. Media uses and gratifications presumes that there are psychological and sociological precursors to media use behavior, an assumption in keeping with the notion of programs as prearranged entities that guide behavior.

Music and Mood Management

Research on the use of music for purposes of mood management is accruing. A survey of adolescents directed by Wells and Hakanen (1991) concentrated on how adolescents use popular music to manage mood states. The majority of respondents
reported a high degree of mood management through music, commonly associating feelings of "pumped up," "mood strengthening," and "lifting spirits" with the music. From their sample of over 1500 youths, one-third identified a tranquilizing dimension expressed as "mellow out" or "calm down." More so than males, females used music to manage moods.

Select studies in the nursing literature examined the relationship between music and recuperation. Moss (1988) explored the value of music for those patients who had had knee surgery. Experimental patients were supplied with headsets and tape players, while control patients went without this treatment. Moss found that among those having the music available, anxiety was diminished. Similarly, on a coronary care unit, Guzzetta (1989) found that patients exposed to music and relaxation therapy had lower apical heart rates and higher peripheral temperatures (measured by temperature of fingers).

Davis-Rollans and Cunningham (1987) also studied the response of coronary patients to music. Data pertaining to mood states were collected by having patients complete questionnaires about the following emotional states: tranquil, happy/satisfied, worried, sad/depressed, sentimental/romantic, both happy/satisfied and tranquil, and a general category for "other." Music was found to reduce anxiety and depression. Heart rate dropped but only one or two beats per minute, which was not statistically significant.

Although patient moods are an important consideration in health care institutions, little is known about them. Since communication media present opportunities for patients to enhance mood states, this research will test the assumption that mood states are related to media use in the field setting of the hospital environment. The field setting offers more variety from which to choose than does a contrived experimental laboratory. Further, field research may provide the advantage of recording an action as it happens, rather than recalling behaviors from the past or projecting future behaviors. From the studies indicating a relationship between a dysphoric state and media use, the third question for investigation arises:
Question 3: What are the relationships between self-reports of moods and media use in hospitalized patients?

3a. What is the relationship between total amount of media use and mood states?

3b. How do self-reports of moods relate to medium choice?

3c. How do self-reports of moods related to selections in content?

The Impact of Pain

Select research efforts have attempted to demonstrate a relationship between media use and tolerance for pain. Understanding the implications from these studies, however, must be tempered with an appreciation for the complexity of the variable of pain.

To illustrate, despite the prevalence of pain and the attention it receives from researchers, there is no single theory representing the phenomenon (Chapman, 1989). Thomas Rudy (1989) depicts pain as a latent variable defying observation and inferred from signs associated with the pain experience.

Paice, Mahon, and Faut-Callahan (1991) refer to the definition of pain put forth by the International Association for the Study of Pain, which defines pain as, “...an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage” (p. 299). The experience of pain, then, is deduced by an individual who combines sensory information with emotional reactivity.

Dolf Zillman (1991) reported on a unpublished study investigating the relationship between pain and exposure to television programming. Subjects were exposed to various programming - comedy, tragedy, action drama, and a cooking demonstration. Pain was induced as a consequence of having subjects keep their hands in icy cold water. The subjects exposed to comedy were able to tolerate the cold water treatment for longer periods of time than those viewing other types of programming. Further, for females, tragedy was as effective as comedy in elevating the pain threshold. Though this particular experiment is high in internal validity in that is delimits extraneous variables, the
external validity is tenuous. Pain is contrived as a behavioristic stimulus-response entity with a mechanistic quality. Further, in the actual field setting, greater opportunities for choice exist.

However, as Zillman has proposed, perhaps the value of the comedy fare is in its power to distract. Distraction, as defined by McCaffery and Beebe (1989) entails deflecting attention toward stimuli other than painful sensations, i.e., a sensory shielding via visual, auditory, kinesthetic, and tactile channels. Though it will not alleviate pain, distraction technique will heighten the pain threshold, enhance mood, and help the patient feel a sense of control. Curiously, after distraction, the individual is likely to feel fatigued, irritable and more aware of the pain.

Research conducted by Ludwick-Rosenthal and Neufeld (1988) is instructive. They observed that noxious medical procedures are perceived as highly stressful by most people, because of the uncertainty involved, anticipated pain, and possible danger. Within the context of the dental office they found that for aversive procedures of short duration, distraction techniques using games and comedy assuaged subjective ratings for stress and discomfort associated with the procedure. Applied to the hospital setting, the question arises as to the possible relationship between pain and media use. Hence, the fourth research question arises:

Question 4: What are the associations between patients' experiences of pain and media use?

4a. Are there conditions under which patients will report a motive of distraction for media use in conjunction with pain management?

4b. Is there a relationship between a request for a pain medication and timing of media use?
Physical Limitations

Physical and emotional health are inextricably bound together. The perception of control is essential for good psychological health, mitigating the stress response. Those who are restricted physically may feel less in control. Being immobile imposes added stress on the patient (Dracup, 1988). A study conducted on a pediatric unit has relevance for the present research. The hospital-based research aimed to distinguish circumstances associated with increased television viewing. Conducting inquiry with hospitalized children as subjects, Bordeaux (1986), used a convenience sample of 32 children and youth, who were interviewed at the outset of the study to ascertain program preferences. Then, patients were observed at one-half hour intervals to assess states of wakefulness or sleep, presence in or out of room, television use, and program viewed when the television was on. Other diversional activities included ambulating, visiting with others and playing games. Bordeaux found that the television was viewed 50.6% of the time and daily viewing ranged from 3.5 to 13.5 hours. The personal demographics of age and sex and the environmental factors of presence of family, accessible diversional materials, and number of roommates did not relate significantly to the number of viewing hours. The key indicator was mobility, with those restricted in mobility watching the most television. Bordeaux’s findings lead to the fifth research question:

Question 5: With adult as respondents, what is the relationship between mobility and media use?

5a. What is the association of mobility and amount of media use?

5b. What is the association of mobility and choices in media content?

THE HOSPITAL ENVIRONMENT

Privatizing Public Places

Drucker and Gumpert (1991) authored a provocative essay depicting the convergence of social interaction, environmental formations, and media. They assert that people need public as well as private space. Therapeutic settings, for example, are
sustained by public places, i.e., people need a place to go to have their ills treated. The public space of the hospital setting may be a place for either media use or public interaction. Individuals have come increasingly to rely on media to entertain, inform and communicate. The media, in turn, may be introduced into public space to: 1.) privatize further the public space, as with a radio and headset, for example; 2.) exert control over the space, as for instance, with a blaring boom box; and 3.) entertain occupants of public and private places, as for example, television sets placed in waiting rooms. In sum, the availability of media for use in public places has transformed the social nature of these places to some extent. Involvement with a communication medium may take precedence over a social encounter as justifiable. Thus, media may be used in the hospital setting to privatize public space.

Earlier research by Dafna Lemish (1982) supports this idea. Lemish used naturalistic methods to study television viewing behaviors in public places and concluded that one who views publicly adjusts to the social setting, including others in the environment. In the hospital setting, communication media are used to minimize interpersonal contact with others in the immediate surroundings. Chairs, such as those positioned in doctor’s and dentist’s offices, are placed so as to keep eye contact between patients to a minimum. Books and magazines provide distraction and serve to keep people apart.

In summary, Lemish’s observations indicate that media are used in public space to privatize the settings.

Consequently, this inquiry will consider the capability of the mass media to meet basic patient needs for space and privacy. Admission to the hospital compels the patient to establish a new temporary territory. The environment of a hospitalized patient, as construed by Williams (1988, 1989) is tripartite - physical, social, and organizational. The physical environment refers to the building and bounded space, taking in light, temperature and climate, sound, and terrain. Social environment is circumscribed by
family and friends, as well as a set of normative influences to regulate group processes and interactions. Those caring for the patient constitute the organizational environment.

As a part of the physical environment, the aural dimension prevailing over physical space has ramifications as an aversive, intrusive force. A complex phenomenon, sound is tied to associated meaning; often, patients lack referents for the noises occurring within the hospital. When one feels ownership for the sound, the tolerance for it increases (Williams, 1989). Reporting on previous research on the aural environment in the hospital, Williams (1988) found that the noise on surgical units surpassed recommended levels and that patients expressed annoyance when the noise level exceeded that of ordinary conversation. She cited one particular study (Haslam, 1970) which concluded that sounds of mechanical origin were less disturbing than conversations of visitors, other patients, and staff.

Furthermore, Jean Hayter (1981) explains that a person out of their own territory has added territory needs. Institutions thwart an individual's autonomy, obstruct their ability to exercise control, mitigate self-identity, and bestow little or no privacy. In semi-private rooms there may be no time out unless one leaves the room. Judee Burgoon (1988) calls attention to the fact that when people feel that their space is invaded, they rarely reciprocate verbally, rather they use nonverbal means to ward off an intrusion. In the hospital setting, it has been observed that patients are more tolerant of personal space invasion than physical space intrusion (Hayter, 1981; Williams, 1988). Intrusion by staff is less aversive than that of other patients, with females being more sensitive to invasion (Williams, 1988).

Hence, if people feel that their space is being invaded, they will be apt to respond nonverbally. Use of media may be a nonverbal reaction to threats relative to space and privacy. Concern is over whether or not this reaction is evident in media behaviors of patients sharing rooms with other patients. Lindlof (1986) investigated media use during
confinement caused by incarceration. Key variables related to media use time and gratifications were structural features of the institution. Institutionalization of hospitalized patients bears similarity to that of prisoners in the surrender of personal freedoms and the routinized treatment of residents. The prison setting for Lindlof’s research had a policy of only one television per cell and allowed for ownership by inmates. Discerning media behaviors of those in single versus those in double cells, Lindlof found that inmates in single cells used television to pass time. Those in double cells slightly favored the privacy afforded by the medium and being in charge of program selection and privacy.

Studies of media use in public places are few but do provide support that public places can be privatized to accommodate personal needs. Of concern in this research is how hospitalized individuals use media to safeguard their privacy. In the hospital setting, the issue of privacy in rooms shared with other patients remains unresolved, whereas private rooms pose the threat of diminished sensory stimulation and social isolation (Williams, 1988). Thus, the sixth research question originates:

Question 6: How does the social need for personal space relate to media behaviors?

6a. What is the relationship between amount and type of media use and rooming arrangement?

6b. What is association between motives for media use and presence or absence of a roommate?

Effect of Visitors

Despite the fact that friends and family can have a significant influence on patients, there are but a few studies concerning this topic. Research conducted on medical units indicate that family visits have no detrimental effects on coronary care patients (Simpson, 1991) and that family visitors do not adversely affect patients with increased intracranial pressure (Prins, 1989). Dracupp (1988) discovered that family involvement with coronary care patients is associated with less patient anxiety. Hartsfield and Clopton (1985)
ascertained that presurgical patients scheduled to have gall bladders removed had lower levels of anxiety if they had visitors.

The seventh research question concerns the effect of visitors on media choices:

Question 7: What is the relationship between visitors and the use of communication media?

7a. How does amount of telephone use (as an interpersonal medium) relate to number of visitors?

7b. What is the relationship between visitors in general and presence of significant others on media choices?

CONCLUSION

Typically hospitalized individuals are presumed to be deprived, and thus disen-chanted. Articles on stress and anxiety associated with hospitalization abound. If, then, it is the case that hospitalized patients are a dysphoric aggregate, media uses and gratifications literature indicates that mass media present viable options for maximizing rewarding experiences in an environment dominated by constraining influences. This research tests the assumption that select patient factors contribute to the use of media. Of special interest are the influences mood, pain experiences, physical limitations, and presence of visitors and roommates on media use behaviors. The next chapter discusses the manner in which the investigation was conducted.
CHAPTER II

PATIENTS TALK ABOUT THEIR USE OF COMMUNICATION MEDIA

The Setting

The investigation was conducted at University Hospitals on the campus of The Ohio State University in Columbus, Ohio. A report for the fiscal year 1990-91 indicates that there were 963 hospital beds and 28,493 hospital admissions for that year. Surgeries totaled 7909 for inpatients and 6214 for outpatients. The hospital provides comprehensive services, such as maternity services, Skymed flights, and women's health services in addition to more traditional medical and nursing services. The institution is distinguished as being among the nations top 5 for number of renal transplants and also offers transplant services for cornea, heart, liver, and pancreas (The Ohio State University: FACTS 1991-1992).

Because University Hospitals is centrally located within the state of Ohio, it draws its service group from throughout the state. Moreover, residents from surrounding states commonly avail themselves of the health care services provided by University Hospitals. To conduct the study, applications for the use of human subjects were submitted to both the Behavioral and Social Sciences Human Subjects Review Committee at the University and the Clinical Nursing Investigation Committee at The Ohio State University Hospitals. Permission to conduct a pilot study and the actual study was secured from both committees (See Appendix A: Authorization Form).
The Respondents

Nurse managers on 3 separate units permitted patient recruitment from their units. The standard procedure for studies pertinent to nursing is for the assistant director of nursing to present research proposals to nurse managers and to use those units on which there is support for the research. The research proposal stipulated the need for both medical and surgical units. A nurse manager from an infectious disease unit representing medical patients and another from an orthopedic surgery unit offered the use of their units for the investigation. After the actual study began, the respondents from the infectious disease unit were insufficient in number, due to a low census. The nurse manager suggested the use of another medical unit and networked with the administrator from that unit so that more patients would be available for the research. This additional unit housed a substantial number of diabetics who were admitted for complications of their diabetes, such as foot infections and renal problems.

Patients for the investigation were recruited with the aid of either the nurse managers or their assistants who provided names of patients fitting the requirements of the study. Criteria for study participation were - projected hospital stay of 3 days or more; patient orientation to the environment; freedom from psychoses; capability to use television and other media, i.e., able to change channels and turn sets on and off; and a diagnosis that was not in the terminal stage of the illness process.

A solicitation script was used to recruit subjects (See Appendix B: Solicitation Script). Candidates for the study were informed of the expectations of them and told that their participation would not entail discomfort, though that they would be asked to share information about mood states and their choices in media. Additionally, each understood that participation was voluntary and that they could withdraw from the study at any time without reprisal. Even though incentives were not used to prompt participation, for some patients, there may have been secondary gain in establishing an additional social
contact with an approved agent of the institution. Those consenting to participate in the study were required to sign consent forms approved by the human subjects committee, and their signatures were witnessed by members of the nursing staff (See Appendix C: Consent for Participation).

Approximately two patients were approached for every one that agreed to participate in the study. Several patients were unsuitable, due to imminent discharge from the hospital. Others, who were most willing to converse at the time of the initial approach and were quite responsive, however, did not wish to be involved in the actual investigation, giving reasons such as disinterest in the study and the fact that involvement would require too much effort of them. Of the 73 patients who were recruited, earlier than anticipated discharge was the main source of attrition; 8 subjects were discharged earlier than expected. Three withdrew from the study early on and expressed lack of interest as the reason for reneging. Another subject had unexpected surgery, and the final respondent was dismissed because she neither kept a media log nor was she able to describe her use of media during the days of observation.

Although further information was not solicited from those who declined to participate in the study, the investigation unobtrusively observed their progress. From some, the hospitalization progressed normally, but others seemed to have more difficulty in the recuperation process. One patient died unexpectedly, another shortly following discharge. In conclusion, relative to research participants, H.J. Hsia (1988) asserts that although demographics are similar between those who respond and those who do not, respondents score higher on measures of achievement, self-control, and socialization.

The sample is not representative of patient populations per se, nor is it a cross section of media audiences, but, for this particular investigation, the convenience sample is adequate to address the research questions. Recall that Jay Blumler cautions that media audiences are not homogeneous and advocates that media use by those at critical
junctures in their lives be explored. Accordingly, media behaviors under that constraint of confinement and within the context of the hospital setting are scrutinized.

The breakdown by units of the 60 respondents comprising the sample follows: Infectious Disease, 9 subjects; Orthopedic Surgery, 30 subjects; and Medical, 21 subjects. For the most part, the designation of the unit was an accurate indicator of the type of patient. However, there were exceptions, such as a gynecological patient who was admitted to the orthopedic unit.

PROCEDURES

Variables

Salient independent variables in this investigation are type of medium, program type, associated gratifications, other presence, self-reports of mood states, use of pain medications, and extent of mobility. Of particular interest in this study is the possible association between these variables. Time spent with the media is the major dependent variable. Medium type included not only the telephone and the television furnished in the hospital room but also any medium that the patient imported, such as radio or magazine. Although a telephone was furnished for each patient, those in semi-private rooms shared a line. A small television set was also present at each bedside, so each patient could exercise choice over available programming. In addition to the major networks and a public service station, cable service provided programming from a nearby independent station, a city government station, C-Span and the weather channel.

Gratifications were classified according to the scheme portrayed by Atkin (1985) as entertainment or pleasure seeking, cognitive stimulation, and compensation or deprivation. The study conducted by Rubin and Rubin (1981) in the hospital setting provided the guide for classification of television programs. Since talk and information shows are similar to newscasts in their informative capacity, they were combined with news and information to form a domain of news/information/talk. Other categories included comedy, action-adventure and
drama, sporting events, game shows, soap operas, and movies. Frequency of use for television, radio and magazines was determined in terms of daily clock hours using the medium.

The influences of other presence, use of pain medications, mobility, and moods were taken into account. Other presence as it related to media use included roommates, spouses, and visitors. The variable of request for pain medication refers to patient initiated request for an analgesic that is documented on the patient's chart. Mobility was classified as to whether or not the patient was confined to bed, allowed up in the chair, or able to ambulate independently in the hall. Patient mood was assessed through self-report (See Appendix D: Bedside Media Log).

Pilot Study

Since the literature associated with the topic under investigation is sparse, a pilot study was conducted in January of 1992 to aid in refining data collection and instrumentation and in identifying relevant variables. Patients who met the criteria specified earlier were approached to participate in the pilot study. Approximately one of every two patients approached consented to participate. Early discharge was responsible for the loss of three participants. Two consenting individuals were dropped from the investigation because they were poor historians and presented ambiguous information about events in the recent past. Each of the 6 patients who participated were followed for three day periods. There were two patients from an infectious disease unit and four from an orthopedic surgery unit. Each patient kept daily Bedside Media Logs (See Appendix D: Bedside Media Log) and was interviewed daily about their media behavior on the previous day (See Appendix F: Media Log Questionnaire). Additionally, an interview was completed with each respondent to ascertain information about daily media use behaviors. For the mediums of radio, television, telephone and print, study participants were asked about the times of day the medium was used, length of use daily, favorite content, and impetus for using (See Appendix G: Intake Questionnaire).
The Bedside Media Log was adequate to chart moods and media behaviors. The chronological listing of media use on the Bedside Media Log did not provide sufficient information about motives and gratifications associated with media use. Hence, in the actual study, patients were provided with a stem to a sentence related to the choice listed on the log and asked to complete it. For example, if the patient watched a news program, a related statement for completion was, "I watched the news because ____________." In the event of phone usage, the patient was asked to fill in the sentence, "I used the phone to ____________.”

Originally the variable of acuity or degree of illness as defined by amount of nursing care required was considered as a part of this inquiry. However, acuity was not a fruitful indicator, as all the patients received from 4 to 7 hours of nursing care daily. This may be an artifact related to the criteria for participation in this study. Extent of mobility proved a superior indicator of medium use, so the daily observation included an evaluation of the patient’s independence relative to physical movement, that is, whether the patient was on bedrest, able to get up into the chair or ambulated freely in the environment.

From the preliminary data elicited in the pilot study, no readily discernable pattern was evident insofar as media use and medication request. What seemed to be happening was that pain medications were requested and then media were used. Sometimes the pain medicine was requested during television use, and other times, there was a delay of from 30 minutes to 3 hours between the request for a pain medication and using a medium, especially television. Therefore, as a consequence of the pilot study, information about requests for pain medications will be analyzed qualitatively, since, as reviewed in Chapter I, the phenomenon of pain is multifaceted.

With respect to reports of mood states, moods were surprisingly constant for each individual. For example, one patient reported feeling satisfied or content all the time, whereas another was anxious throughout his hospitalization. At least one of the moods
listed, that of sentimental/melancholy, was not used by any of the patients in the pilot study. Since the impression was that patients may have been unaware of meanings associated with mood states, each patient in the actual study was provided with a sheet giving brief definitions of the mood states (See Appendix E: Mood Definition Sheet).

A striking finding was that of blank media logs on 3 occasions. When patients were questioned, they reported atypical or woeful situations with hospital staff or significant others. In their annoyed states they avoided the medium of television in particular. One patient chose the phone more to inform friends and family of his unfortunate plight. These accounts from respondents may prove to be valuable data sources, so data collection will be expanded to incorporate their narratives.

Finally, as a consequence of this preliminary effort, a question was added to ascertain presence of others with the patient. This included roommate, spouse, and visitor. It was noted that media use generally was not initiated when visitors were present but this did not necessarily hold true for presence of a spouse. Those involved in the pilot study spent significant time watching television when a spouse was present but did not use the medium when other visitors were in the room.

DATA COLLECTION

At the outset of data collection, those who agreed to participate were provided with a pencil to mark media use on the Bedside Media Log, a one page sheet on which patients recorded the time a medium was used, their mood at the time and the nature of the media content (See Appendix D: Bedside Media Log). Patients selected from categories of moods at the bottom of the Log to report on moods.

Within the field of health science, subjective reports of feelings and moods are acceptable forms of information about patients. Psychological data as to mood states included the emotions of tranquility, satisfaction, sentimentality, and sadness which were used by Davis-Rollans and Cunningham (1987) in their study on select music and
coronary patients. Categories were reorganized and expanded to include clinical observations made by the investigator. Typical mood states were identified as such:

1. Gloomy/sad - not uncommonly patients are unhappy about their illness and the experience of hospital placement. Additionally, worry over the disease itself is a cause for sorrow.
2. Satisfaction/contentment - a sense of feeling at ease and composed in a given situation.
3. Sentimental/melancholy - sometimes there is a desire to return to the way things once were, and a sentimental mood sets in. The time spent in a hospital bed provide some with a chance to think and reminisce.
4. Anxious/restless - the sensation of uneasiness or impending doom, psychological tension, and apprehension.
5. Bored/unfulfilled - exacerbated by being in confinement with minimal stimulation. One may grow weary from a constant state of dullness.
6. Cheerful/optimistic - this is a common emotion when the patient begins to see progress in their medical trajectory; also, good news about the disease from a physician tends to elevate mood.
7. Loneliness - sense of being alone and without social support or companionship.
8. Other - open-ended option to accommodate responses not included in the categorizing system.

For the patient's convenience, a listing of these definitions was left at the bedside (See Appendix E: Mood Definition Sheet). The definitions were reviewed with the patients, who were then given the opportunity to ask the investigator any questions they might have about their use of the Bedside Media Log.

The investigator left the patient and returned the next day to read the Log and ask follow-up questions, designed to clarify and amplify patient notations. A semi-structured interview was used (See Appendix F: Media Log Questionnaire) to elicit reports of gratifications associated with media use. For each entry on the log, the interviewer provided the beginning of a sentence and asked the patient to complete it. For example, if the patient reported watching "Jeopardy," the patient was asked to complete the sentence, "I watched 'Jeopardy' because..." Phone calls were addressed similarly, i.e.,
“I called my daughter to ...” At the conclusion of the interview on the first day, a second Bedside Media Log was left at the bedside for the patient’s notations. The next day, the patient was revisited and a similar line of inquiry ensued.

A period of data collection for each patient covered 48 consecutive hours. During this time, the diagnostic and treatment regimes for each patient progressed normally - patients received physical therapy as needed and some underwent special diagnostic tests. In addition to the interviews to collect information about daily use of media, patients were asked about media use habits outside the hospital setting (See Appendix G: Intake Questionnaire). This questionnaire was administered once during the 48 hour participation period. It was valuable in fostering a sense of trust between the patient and the interviewer and in arousing the patient to think deliberately about their media use behaviors. Much of data collected with this instrument is beyond the scope of this particular analysis and will be evaluated in a subsequent paper. For this inquiry, however, the questions of concern are those associated with the nature of their perceptions of pain, their perception of the medium of television as a source of satisfaction in the hospital environment, and types of media imported into the hospital.

As well, specific data were collected from the patient’s medical record (See Appendix H: Documentation from Patient’s Record). The demographic variables of age, race, and sex were collected from patient charts, as were data concerning diagnosis, treatment and use of analgesic medications. Included were accounts of both requests for pain medications and the date and time an analgesic was dispensed (See Appendix H: Documentation from Patient’s Chart).

At the close of the study participation period of 48 hours, patients were thanked for their contributions to the study. Several reported that they were glad to be of assistance and some noted that their involvement in the study gave them something to do. Two patients asked to continue in the study, and their requests were accommodated, although the additional data are not included in the analysis. As a matter of interest, the
extra information they provided was consistent with that collected previously from each. Another patient took an academic interest in the study and asked to have results mailed to him.

Inherent in the methodology are concerns over reliability and validity. The investigation is predicated on the reliability and validity of the self-report method. Nurses, physicians, and health care personnel in general trust the self-report method as a form of data collection, even to the extent of basing diagnoses and treatments on data collected through the interview and self-report processes. It is unlikely that respondents would associate behaviors under study with social desirability, as the aim of the interview process was to generate facts about media use and not to ascribe positive or negative meaning to behaviors, thereby minimizing a bias of social desirability.

ANALYSIS OF DATA

As expressed earlier in this paper, the literature base for the topic of hospitalized patients' use of mass media for diversionary purposes is scant; thus, a basic consideration in data analysis is to explore the possibility of interrelationships between variables. Additionally, acknowledging that the preponderance of data amassed in this study are categorical in nature, frequency counts are indicated to assist in analysis.

Moreover, qualitative analysis is warranted to address the research questions. Marshall and Rossman (1989) state that "Survey and experimental research is more appropriate for unambiguous concepts and finely tuned indicators with high levels of reliability (p. 42)," wherein known variables can be manipulated and their interactions can be tested in different contexts. Qualitative methods are indicated in exploring relationships of unclear or ambiguous variables. In this particular study, the relationships between the variables are not clear cut. Select events can be quantified, as will be illustrated, whereas others must be explicated in narrative form.
Research question number one is concerned with type of medium used, amount of time devoted to use and program choices. Frequency counts will be used to portray types of media selected and types of programs selected. Programs will be classified as to movies, game shows, comedy, action-adventure, drama, sporting events, news and interview/talk shows. The amount of time will be assessed by asking patients how long each medium was used and will be used to present a graphic account relative to both type of medium and program choice.

The second research question, addressing gratifications associated with medium use, will be assessed through daily interviews and interview items prefaced with the antecedent, "I used the _____ because__________." Responses will be classified in accord with Atkin's cost-benefit analysis to divide patient responses of pleasure seeking or compensatory motives. Pleasure seeking will include both intellectual motives and emotional stimulation.

Research question 3, focusing on the relationship between mood and media use will be assessed by way of the Bedside Media Log and daily interviews. The previously cited study by Helregel and Weaver (1989) suggests that combining moods to reflect either positive or negative moods is a plausible alternative. For this particular data analysis, moods will be collapsed into either positive or negative. The positive state encompass both the satisfied/content category and the cheerful/optimistic grouping. The classification of negative mood states entails the categories of gloomy/sad, sentimental/melancholy, anxious/restless, bored/unfulfilled, lonely, and other, since respondents using this option filled in items such as "beaten down" and "worn out." Atkin's classification of gratifications will be compared to reports of positive or negative moods. Frequency measures will be used to depict the association between moods and media choices.

Evaluation of the relationship between mood and total time with media will be described in regard to a general linear model, to be described later in this Chapter. Moreover, select case histories of mood management will be presented.
The fourth research question addresses the association between the use of pain medication and the use of media. Information relative to the use of pain medication will be collected from the patient’s chart and media use will be determined from the Bedside Media Log. Because of the many extraneous and internal influences impinging on the perception and the subjective experience of pain, this question will be qualitatively analyzed. Individual patterns of use of pain medications will be identified and evaluated relative to the relationship to media use.

The relationship between mobility and media use is at the heart of question 5. Program choices relative to extent of activity (i.e., bedrest, up in chair, or ambulatory) will be tabulated. The association between mobility and total time with media will be described relative to a general linear model, which will be discussed later in this section.

The phenomenon of privatization of public space is addressed in question 6. For question 6a, amount of use for each medium relative to presence or absence of roommate will be appraised through t-tests. To address question 6b, motives for media use will be assessed and comparison will be made in light of rooming arrangement. Also, a qualitative analysis comprised of patient self-reports will be incorporated.

Question 7 entails visitor presence and media use. Amount of time using the telephone will be correlated with number of visitors to answer question 7a, which probes the relationship between telephone use and visitors. To answer question 7b, frequency counts will be compiled as to initiation of media use and presence of significant other or visitor in general.

With total time in minutes spent using media as the continuous dependent variable, a general linear model will be used to appraise the contribution of select variables to the time spent with media. The portion of question 3 concerned with mood and total media use will be addressed in this way, as will a section of question 5 probing the relationship between mobility and total time with media. As reported in Chapter 1 of this text,
demographic variables are often significantly related to media behaviors. Therefore, the demographic variables of age, race, and gender will also be considered in the general linear model.

Finally, during the course of the daily interviews, patients disclosed personal accounts that offer further information germane to the inquiry. Material of this nature will be included in the analysis to illustrate significant findings and to raise new questions for inquiry.
CHAPTER III

HOSPITALIZED PATIENTS’ CHOICES IN COMMUNICATION MEDIA

INTRODUCTION

Chapter I synthesized research literature from the disciplines of communication and the health sciences providing the background for this inquiry concerning hospitalized patients and their use of communication media. A choice-constraint model affirming that individuals make choices under conditions of constraint is used to explain media selections during the course of hospitalization. This is linked to the notion of media gratifications, implying that communication media have the capacity to provide rewarding experiences under conditions of deprivation. As stated earlier, the purpose of this study is to provide preliminary information about media use by hospitalized patients. Consequently, 60 patients from medical and surgical units kept media logs and participated in interviews for a study participation period of 48 consecutive hours.

This Chapter presents the results of the data collected. A basic consideration in data analysis is the preponderance of data that are categorical in nature, thus numerical distributions are used to provide information about the question under deliberation. Patients’ choices of communication media will be described in light of time of day, associated gratifications, mood states, and mobility. The effect of other presence, i.e., significant other, visitor or roommate, will be appraised as to impact on media use.
Further, the influence of demographic variables, diagnosis, mobility, mood and gender will be analyzed as to their contribution to total time spent in using communication media.

MEDIA USE BEHAVIORS

In this investigation, the unit of analysis is each time the patient used the media. For the mass media, use was that which was initiated by the patient; although for telephone use, each phone call was considered regardless of whether it was incoming or outgoing. This standard accounts for much of the analysis that follows; however, for the ANOVA featuring variables that contribute to total time spent with media, amount of time was tallied and used as a continuous dependent variable.

Data were entered into the computer based on 24 hour periods as defined by military time, to maintain order in the chronology of activities. Data were coded (See Appendix I: Code Book) and transferred into WYLBUR for analysis in SAS System software. To determine whether subjects were more likely to mark entries during the initial day of observation and slack off during the second half of the observation period, the total number of entries for the first 24 hours of participation was compared with the number of entries for the second 24 hours of observation. Patients reported 731 (49.8%) media uses collectively during the initial 24 hour period and 736 (50.2%) for the second 24 hours of observation, totaling 1467. Hence, their responsiveness did not deteriorate with the passage of time. The overall range per patient extended from 0 observations to 49 entries on a given day, with the upper boundary representing two communication activities occurring simultaneously.

The age of respondents scattered between 19 to 72 years, with the median age of 47.5 years. One of the respondents was 19 years old; 12 were between the ages of 20 and 28; another 12 between 32 to 39 years of age; 10 were 50 to 59 years old; 10 were 60 to 69; and 6 were from 70 to 72 years old. African-American numbered 13 (22%) and Caucasians totaled...
47 (78%), with females numbering 34 (57%) and males, 26 (43%). Thirty-one patients were on medical units and 29 on the surgical ward. Whereas 19 (32%), of the patients were in private rooms, 41 (68%) were in semi-private rooms.

Communication Media Choices

Research question number 1 centers on the types of media choices hospitalized patients make. As discussed earlier, each patient involved in the study had a television and a telephone furnished at the bedside. In general, the selections of communication media were made accordingly: the television was chosen 763 times or 63% of the time; reported telephone calls tallied 345, representing 28% of media use; print materials were used 90 times, i.e., 7.5% of the time, and radios and headset/tape combinations were used 16 times, representing 1.5% of communication media used (See Appendix J: Table 1: Communication Media and Frequency of Selection). Question 1a involves the incidence of imported media. Of the 60 patients involved in the study, 47 (78.3%) brought communication media into the hospital setting. The medium of print, the most popular form of imported media, comprised 85% (N=61) of the 72 imported items. Magazines tallied 20; books, 16; newspapers, 14; word puzzles, 9; and Bibles, 2. Radios were used by 4 patients, and 6 respondents brought headsets and tapes in the hospital. One individual entered the hospital equipped with a camera and photo albums (See Appendix J: Table 2: Imported Media).

Question 1b involves patterns of media use. Before concentrating on each medium specifically, a portrait of communication activity in general will be presented. Although the television and telephone are continuously available to the patient, visitors are unlikely to be present around the clock. During daytime hours, when media use is high, visitors are apt to arrive. Interactions with them as well as the use of media fall under the rubric of communication activities. As a matter of interest, these activities are included in composite form to project an image of communication activities in general. Included in this composite are times and frequencies of communication activities in general. See Figure 1: Time and Frequency of Communication Activities.
Often the patient's day begins at 6 o'clock in the morning, when routine hospital activities commence, as patients are aroused by nurses to have their vital signs taken and by laboratory technicians making their rounds to collect blood samples. By 8 A.M., the majority of patients are awake and awaiting breakfast; at this time, the number of communication activities begins to rise. That is, media use and the presence of visitors are well underway for the day. A morning peak of 137 activities is reached by 10:30, followed by a drop in activities to 91 at 3 o'clock in the afternoon. By 4:30, however, activities climb steadily to 129, before dropping to 119 over the dinner hour around 6 P.M. During the 90 minute time interval surrounding 7:30 in the evening, the daytime high for communication activities is attained, with the highest frequency of communication activities at 176. Communication activities then steadily declined to very low levels (N=3) at 3 in the morning.

Watching television is the predominant form of communication media use. See Figure 2: Time of Day and Frequency of Television Viewing. In the early morning hours, television viewing declined, but began to increase steadily at 6 A.M. as patients awoke, reaching a peak of 60 uses television at noon. This was followed by a drop of

![Figure 1: Time and Frequency of Communication Activities.](image-url)
almost 25 uses by 4 o'clock in the afternoon. After this time of decreased viewing, the
frequency of use rose again, though gradually until 8 o'clock when the high of 71 uses
for the day was reached. By 10 at night, however, viewing plummeted to 28, a drop of
61%.

Relative to the use of print material, two individuals read prior to 6 in the morning,
and this was followed by increased incidents of reading until 10 A.M., with 9 reports of
use of print materials. By noon, the number dropped by half; at 6 in the evening, there
was only one report of the use of print material. However, at 8 in the evening, the
highest use of print was attained, with a frequency of 11, which dropped to 3 by 10 P.M.

Radios and audiotapes were used by only a few, who were, however, repeat users
of these media. At the 6 A.M. hour, one respondent recounted listening to talk pro-
grams routinely on early morning radio. By mid-morning listening declined and began to
increase again around 10 at night when some listened to audiotapes until early morning
hours.

Figure 2: Time of Day and Frequency of Television Viewing.
As a communication medium, the telephone had low salience insofar as respondent recollection of time of use. Moreover, recording use of this medium was neglected by many of the respondents. For one-third of the calls (N=128), patients were unable to recollect times at which the phone conversations had occurred, though they could report the content of their conversations. Information acquired from those who reported times of phone use reveals that calls were sparse during the night and began to increase in number at 6 A.M.; there were slight peaks at 8 o'clock in the morning and 4 in the afternoon, but the highest frequency (N=25) occurred at 8 P.M.

Summarizing the response to Question 1b concerning differences in media use by time of day, media use generally began at 6 o'clock in the morning, after patients were awaken. Televisions and radios were the first communication media used. Within two hours after awaking, patients made and accepted telephone calls. The use of print materials peaked mid morning and at 8 P.M. Media use tapered off after the noon hour and started to escalate again around 4 o'clock in the afternoon. Coinciding with the cessation of normal visiting hours, media use was at an all time high at 8 P.M.

Question 1c pertains to content selection for a given medium. Discretion in examining media choices is warranted, since not all types of television programming were available at any given time. Choice was relegated to what was accessible on the major networks and basic cable channels. Generally, newscasts aired at 6 A.M. hour and continued through early morning, as is evident in programs such as "Good Morning America," which combines news programming with talk and information fare. Talk shows dominated the major networks mid to late morning; show hosts included Phil Donahue, Regis and Kathie, and Sally Jessy Raphael. Other channels offered action-adventure, such as "Magnum PI," and the public service station carried a variety of programs. At noon, the major stations offered local newscasts, followed by daytime serial dramas. At 4 P.M., some situation comedies were available, along with talk shows, and at 5:30 local news broadcasting resumed, till the national news aired at 6:30
P.M. At 7 P.M., game shows and investigative reporting information programming were featured. Prime time programming varied by day of week, but included situation comedies, dramas, movies and docudramas. On weekends, sportscasting constituted a significant portion of television content throughout the day, with news and information programs, dramas, movies and situation comedies following. Sunday mornings featured news programs, religious programs, and movie reruns. Thus, at certain times during the day, choice of available programming was limited.

Despite this fact, programs related to news and information were the most popular among the audience in the hospital setting, with almost one-quarter of media choices associated with newscasts alone. When other forms of informative programming is included, such as talk shows, documentaries, and interviews, the percentage of choices related to programs of an informative nature escalates to over a third (35%) of the selections in television content. Comedy programming ranks second in terms of popularity, with 14% of the programs viewed in this category. Relative to the use of the telephone, respondents were asked if the call was for business or personal reasons. The vast majority, of 358 (94%) of calls were for personal reasons, and only 22 (6%) were associated with business. With respect to the use of headsets and earphones and radios, 12 uses (66%) were related to headsets and tapes, the content of which was music; the radio, used only 6 (34%) times, was allied with its informative capacity, i.e., 4 of the listening times related to Bible studies, one use was associated with news programming, and another incident involved listening to a sportscast (See Appendix J: Table 3: Medium and Type of Content Selected).

Associated Gratifications

Question 2 focuses on gratifications derived from use of communication media. During the course of administering the Intake Questionnaire (See Appendix G), patients were asked what purpose the television in general served for them in the hospital setting. As well, they were asked about the purpose of the telephone. Questions were posed in
an open-ended fashion and not bounded by predetermined categories. For television as a medium, i.e., aside from specific programming, there were 7 responses, three of which comprised 72% of their answers. The number one answer was to fill time, mentioned by 21 (35%) of the patients; the second most common response, to escape or take their minds off their problems, was given by 13 patients (21.5%), and the response of hardly any or no satisfaction was provided by 9 patients (15%). Other answers were to keep up, 6 respondents (10%); for company, 4 respondents (7%); to decrease boredom, 3 respondents (5%); habit and continuity, 3 respondents (5%); and to see favorite shows, 1 respondent (1.5%).

Insofar as gratifications associated with the use of the phone in general, 6 individuals (10%) said there were no real gratifications associated with the telephone. Half the respondents (50%) noted that the phone enabled them to keep in touch with family and friends - of these, four people qualified their answers by commenting "...to stay in touch so they don't have to drive." Five patients (8%) noted they use the phone to alleviate loneliness; four more (6.67%) said it gave them someone else to talk to. Two patients (3%) found the phone to be a way to cheer up. The phone was a means to order supplies from home (food items, personal hygiene supplies and the like) for 4 individuals (6.67%). Six people reported that the phone was a way to get messages and a way to report on their condition (10%). Each of the following gratifications were given by one person (1.7%): to get support from others, to have social contact, and to get work done (See Appendix J: Table 4: Gratifications Associated with Specific Medium by Number of Respondents).

Question 2a concerns gratifications aligned with particular media. Consider that Atkin proposed a scheme whereby gratifications were stratified into arousal or enjoyment, learning or information, and compensation. Patient responses for 883 instances of medium use were classified. For the medium of television, the arousal motive was cited 306 times (39%); for the learning and information transfer motive, the television was chosen 124 times (16%);
and gratifications associated with compensation were reported 348 times (45%). This entails 778 reports of television use. As to the use of print material, times of use totaled 87 with 28 (32%) responses associated with arousal, 25 (29%) with learning, and 34 (39%) with compensatory gratifications. Of the 18 times of radio and headset/earphone use, 3 (17%) uses referred to the arousal motive, 7 uses (39%) were linked to the learning and information gratification, and 8 (44%) responses related to the compensation gratification. If, as Atkin proposes, the arousal/enjoyment motive and the learning/information gratifications are deemed on the positive side of the equation for use, note that for all these communication media, major gratification are positive as opposed to negative. In other words, the television was used for the positive gratification 55% of the time, print material was linked with positive gratification 61% of the time and radio use related to positive gratifications 56% of the time (See Appendix J: Table 5: Medium Type and Gratification).

Personal telephone calls were classified into the broad categories of either information transfer or companionship. Information transfer included purposes such as reporting on medical progress, requesting supplies from home, and scheduling visits. Companionship entailed purposes such as routine calls with those in one’s social sphere and relief of loneliness. Of the 348 reports of phone use, the majority of calls, 202 (58%) were for purposes of learning and information transfer, i.e., calling home to check on things, imparting the latest news on one’s condition, and sharing details about discharge. The number of phone uses for purposes of companionship was 146 (42%). These calls often involved intimates, family members, and close friends.

The relationship between specific program types and gratification is posed in research question 2b. Frequency counts were conducted on gratifications as they relate to choices. For the arousal/enjoyment gratification, sports, game shows, and adventure drama were mentioned most frequently; the information/learning gratification was associated almost exclusively with news, talk, and information programming.
Compensation or deficiency gratifications, such as boredom, loneliness, and pass time, were mentioned in conjunction with comedies, soap operas, and music and variety (See Appendix J: Table 6: Gratifications and Program Choices).

Question 3 features the relationship between mood and media use. Before addressing the relationship between mood and media choices, it is important to examine patient self-report of their mood states. A common stereotype is that hospitalized patients are deprived and unhappy, a perception which did not hold true for this particular sample. Patients gave their accounts of mood states on the media logs (See Appendix D: Bedside Media Log) as such: sad, 54 entries (4%); content, 524 (43%); sentimental, 35 (3%); anxious, 122 (10%); bored, 125 (10%); cheerful, 206 (17%); lonely, 47 (4%). The final category of “other” (constituting 10% of reports) accommodated additional responses, all of which were negative in nature (See Appendix J: Table 7: Accounts of Mood States).

Note that the majority of reports were of positive mood states, i.e., accounts of contentment and cheerfulness (60%) were combined to yield a positive mood state and the remainder of reports were summed as negative mood state (40%). Of the 1435 reported mood states, 567 were negative and 868 were positive. For females, 552 (60%) of 870 reports were positive, whereas for males, 316 (40%) of 565 reports were positive. Question 3a pertaining to mood state and total time with media will be discussed later in this Chapter relative to an ANOVA procedure.

Section b of question 3 relates to the type of medium used relative to mood state. Of the 682 reports of positive moods, the television was selected 429 times (63%); the telephone, 231 times (34%); print material, 11 times (1.5%); and radios and audiotapes 11 times (1.5%). There were 513 notations of negative mood states, and of these, 326 (63%) were listed with television use, 147 (29%) with use of the telephone, 34 (7%) with print materials, and 6 (1%) with radio use. In sum, television was the dominant
choice regardless of mood, whereas telephone use was slightly greater among those reporting positive moods. Print media, however, were used more by those reporting negative moods (See Appendix J: Table 8: Medium Choice by Mood States).

Research question 3c addresses the relationship between content selection and reported moods. Under both conditions, news/talk/information programming was the most frequent choice, followed by comedy, then by adventure drama. These three categories represented 57% of the choices for those in negative moods and 62% of selections for those reporting positive mood states. Additional selections, in descending order, made by those experiencing negative moods were movies, unknown (i.e., respondent was aware that television was on but failed to recall programming), soaps, game shows, sports and music/variety. Those reporting positive moods related the following in descending order of frequency - soaps, movies, music/variety, game, sports, and unknown. The percent of the unknown category was twice as great among those experiencing negative as opposed to positive moods, i.e., 8% versus 4% (Refer to Appendix J: Table 9: Program Choices by Negative and Positive Moods). Thus, the frequency counts portray television as the dominant medium. There is some homogeneity across mood states for content preferences, with news, comedy, and adventure/drama most frequently selected among those in both positive and negative mood states.

Pain Experiences and Media Use

Question 4 centers around the use of media and requests for pain medication. Of the 60 patients who participated in the study, 45 (75%) requested analgesics. The pattern of requests relative to time of day varies (See Appendix J: Table 10: Time of Day and Requests for Pain Medication). The peak use hours for medication use were 8 A.M. and 8 P.M., with 13 requests for each of the time intervals; midnight follows closely behind in frequency with 12 requests. As to percentages, the hours between 8 and 11 in both the morning and the evening hours encompass 19% and 16% of requests respectively, totaling 35% of requests. The lowest use of pain medication is in the early
morning hours from 3 to 6 A.M., when requests were only 6%. During the observation period, there were 173 times when analgesics were dispensed in accord with patient prompting. From the hours of 8 P.M. to 7:59 A.M., 74 (43%) requests were made and 99 (57%) of the requests were between the hours of 8 A.M. and 7:59 P.M.

Noteworthy is the fact that the 8 o’clock hour signifies recurrent changes. The greater demand for pain relievers at the critical 8 o’clock hour reflects the requirement for patients to adapt to changing circumstances. In the early morning, the patient must prepare to face a new day, whereas the early evening hours mean adjusting to the night ahead. At 8 A.M. patients not already awake are roused to bathe, have vital signs assessed, prepare for breakfast and await treatments and procedures from health professionals. Conversely, after a 12 hour time frame has elapsed, the routine of the day begins to wind down at 8 P.M. and there are marked changes as well, when visiting hours cease and prime time television programming begins.

There is an interesting parallel with peak times for communication activities. Around 7 A.M., communication activities begin to emerge with a higher frequency and are doubled at 8 A.M. In this investigation, at 10 o’clock, the frequency of activities was 137, before tapering off. At 5 P.M., communication activities again begin to climb, with frequencies of 129 at 5 o’clock, 176 at 7 o’clock and 125 at 9 P.M., when visitors leave and patients turn to media. Many patients retire between the hour of 9 and 10 P.M.; hence, frequency of activities dropped to 90 at 10 at night and fell steadily thereafter. Results are summarized in Figure 3: Peak Times for Communication Activities and Requests for Medications.
With regard to the relationship between use of media and timing of medication requests, 55% of the requests came during the actual use of media, particularly television. Comparing motives for media use with requests for medication, over one-quarter (27%) of medication requests occurred during use of media to provide background or help pass time. In 33% of the requests, media use followed the use of medication, whereas only 12% of medication requests came after the use of media. Perhaps analgesics relax the patient sufficiently for the use of media, i.e., relief of pain may render a patient ready to use and perhaps find satisfaction in media choices.

The characteristics of those who refrained from using pain medications were appraised. Of the 15 who did not request pain medications during their observation periods of 48 hours, 12 were medical patients. The 3 patients on the surgical unit with no analgesic use had not had surgery. One bedridden 34 year old woman used television continuously, keeping the medium on even during her sleeping hours. The other two patients on the surgical unit were under medical as opposed to surgical treatments and
enjoyed a high degree of freedom to move about, making rather frequent trips to the hospital lobby and water fountains on the grounds located outside the lobby.

In this investigation, the light users of media were the ones who devoted less than six hours daily to media use. The majority used media between 6 to 10 hours daily, and only 4 individuals used over 10 hours of media daily. None of the lightest users of media in general fell into the group of patients who used no analgesics. In other words, the majority of those who used no analgesics used media 6 to 10 hours a day. This pattern is in keeping with the distraction hypothesis that presumes that pain can be managed, at least to some extent, by alternative sensory stimuli.

The theme of media use for purposes of distraction or escape from unpleasant internal and external states was apparent in self-reports from patients. A 61 year old Caucasians female facing a total leg and partial hip amputation was on continuous intravenous Dilaudid, a narcotic analgesic. Her habit was to keep the television on continuously, though at times the sound was turned down. Asked what purpose this served for her, she replied, “It’s like kids going around with headphones on...it keeps the mind occupied.” Some patients used media during treatments, such as IV hook-ups for antibiotic administration, whirlpool therapy, and special procedures, i.e., a cast application.

More commonly, patients admitted using media to keep their minds off pain and other symptoms. One patient was particularly distressed about the diarrhea he was having and spent considerable time in the rest room reading Analog, a science fiction magazine. One young lady worked word puzzles to keep her mind off the pain. Another woman turned news on and applied manual pressure to her flank, when she felt pain from kidney stones coming on. A 39 year old male who had surgery to replace a knee joint turned on “Star Trek" as a distraction for pain but confided that it was not helpful in alleviating pain. In another situation, at the prompting of a fiance who was visiting, a 24
year old woman started watching a movie when she began to feel postoperative pain following foot surgery. At 6:30 the next morning when she couldn't sleep, she turned cartoons on and believed them to be somewhat helpful in decreasing her foot pain, though she eventually requested her analgesic anyway.

Mobility and Media Use

Question 5 centering on mobility and time spent on media use will be discussed later in this Chapter relative to a general linear model procedure of analysis. For question 5a, concerned with the issue of mobility and media choices, patients were stratified into 3 categories - those on bedrest, those able to be up in the chair and those who could ambulate fully. Of 888 accounts of media use, 153 (17%) were under the condition of bedrest; 432 (49%) were of those able to be up in the chair; and 303 (34%) were from patients able to move about freely. For all 3 of these conditions of mobility, news, information, and talk shows were the top choice of television programming. Consistently, the second choice was comedy (See Appendix J: Table 10: Mobility and Choices in Television Programming). A subtle difference was present in the third most popular choice for television content, with the bedrest and up in chair respondents preferring adventure/drama programming, whereas the ambulatory group selected game shows.

The Effect of Other Presence

Roommate

The core of question 6 is the influence of a roommate on media use behaviors. Question 6a involves the relationship between amount of media use and rooming arrangement, i.e., private or semi-private room. Recall that 41 patients were in semi-private or double bed rooms, whereas 19 were in private rooms. To assess differences between time spent with the various media and rooming arrangement, t-tests were performed. In interpreting these tests, the unequal and equal divisions refer to variance and not to equal or unequal means. For the medium of television, the p-value was .3050.
Thus, time spent viewing television was independent of rooming arrangement (See Appendix J: Table 12: t-Test for Television Use and Rooming Arrangement).

The t-test procedure to determine the relationship between use of print material and rooming arrangement had a p-value of 0.1917. Hence, the total time spent with print materials did not vary in regard to roommate presence (See Appendix J: Table 13: t-Test for Amount of Time with Print Material and Rooming Arrangement).

Time spent using the radio and audiotapes and rooming arrangement also was evaluated through the t-test statistic and proved not significant with p = 0.5654 (See Appendix J: Table 14: t-Test for Time Spent Listening to Radio/Audiotapes and Rooming Arrangement).

Similarly, interpersonal influences of other presence were appraised with t-tests. Time spent using the telephone, a communication medium for interpersonal use, was not different under either the condition of being alone or of having a roommate. The p-value was 0.9870 (See Appendix J: Table 15: t-Test for Time Spent on Telephone and Rooming Arrangement).

The relationship between amount of time spent with visitors and rooming arrangement was explored. The t-test procedure yielded a p-value of 0.7801, indicating no difference by room arrangement (See Appendix J: Table 16: t-Test for Time Spent with Visitors and Rooming Arrangement).

The final variable considered was that of significant other. In this study, those inhabiting private rooms all identified their significant other as their spouse. Hence, that term will be used in the interpretation of results. The t-test was performed to determine whether length of time for presence of spouse differed by rooming arrangement. Significant at p=0.0411, analysis indicates that those in private rooms were likely to have their spouse at the bedside throughout the day and sometimes into the night (See Appendix J: Table 16: t-Test for Time Spent with Spouse and Rooming Arrangement).
To summarize, time spent using communication media was not significantly different between those in private and those in semi-private hospital rooms. The one variable that was significant was the amount of time the spouse was present. Spouses often stayed the night when their mates were in private rooms.

Question 6b addresses viewing preferences and possible motives for media use. Those in private and those in semi-private rooms have similar program preferences, with new/talk/information programs as top choice, followed by comedy programming. The category of "unknown," was cited 19 of 21 times by those in private rooms, whereas those in private rooms used this choice only twice. Thus, it would seem that those in semi-private rooms may have the medium on to claim space in a somewhat public domain.

Although the data collection techniques used in this study did not provide clear distinctions as to differences in motives between those in private and those in semi-private rooms, comments from patients suggest that differences exist. Two individuals who were in a room alone with limited visits from their spouses did in fact use the medium of television for its company value. A 49 year old male, a paraplegic as a consequence of a motor cycle accident 10 years ago, spent his days watching movies on television. Openly admitting feelings of chronic loneliness, he repeated the following quotation that had particular meaning for him: "Treasure your own company. Sometimes that's all you've got." A 48 year old woman, alone in a room at the very end of a hall acknowledged the company value of television and confided that she was out of the range of the staff unless they had a reason to be down there at her end of the hall.

Of the 41 patients in semi-private rooms, 8 (19%) commented on the value of television as a way to privatize their space. A 20 year old female student said she may not always be watching television but kept it on "...to keep the outside in," admitting that she did not like to be alone. Five patients offered that television was gratifying in drowning out noises from the hall and conversations in the room. One patient used the
television only once during the observation period and related that was only because the content of her roommate's conversation was bothering her. Another patient, who had had numerous hospitalizations including one for a kidney transplant, reflected, "I can relax more with TV than with worrying about different things, like a roommate. You can always turn TV off." Individuals varied in their amount of insight relative to a roommate's presence. One 28 year old victim of a car accident confessed that she left TV on "...for the heck of it." Another woman prepared written lists of things she wanted her husband to take care of at home, because, as she put it, she did not want her roommate "...to hear."

Visitors

Question 7 probes the relationship between visitors and communication media use. Before addressing this matter, general observations about visiting patterns will be presented. Number of visitors per patient at any given time ranged between 1 and 9. The frequency percent by number is: 1 visitor, 63%; 2, 21%; 3, 7.5%; 4, 1%; 5, 2%; 6, 2.5%; 7, 0.5%; 8, 0%; and 9, 2.5%. Results are summarized in Figure 4: Visitation Patterns by Number of Visitors.

Figure 4: Visitation Patterns by Number of Visitors.
General visitors started arriving at 7 in the morning; their number continued to increase till 1:30 in the afternoon, when the number dropped. There were peaks again at 4:30 P.M. and 7:30 P.M. Significant others, on the other hand, began to visit midmorning and maintained a high level of visits until after the dinner hour at 6 o'clock.

Question 7a addresses the amount of telephone use relative to the number of visitors. A Pearson Correlation was performed to determine the relationship between phone usage and number of visitors. There was a significant (p=0.019) positive correlation (r=.33) between total time on phone and number of visitors based on a total number of 51 observations (Data were missing in some cases of number of visitors). Not every patient used the phone, nor did every patient have visitors during participation in the study.

The concern of question 7b is the relationship between the type of visitor, i.e., significant other or visitor in general, and the initiation of media use after the arrival of company. For all three of the mass media, the frequency of use was higher under the condition of significant other than of a visitor in general. For the television, the set was used 37 times (38%) after a visitor arrived and 61 times (62%) after arrival of a significant other. Use of print material was begun 4 times (36%) after a visitor's arrival and 7 times (64%) following the arrival of a significant other. No radio use was initiated when visitors were present; however, in 2 cases (100%) radios were used with a significant other present (See Appendix J: Table 18: Choice and Visitor and Significant Other Presence).

INFLUENCES ON TOTAL TIME WITH MEDIA

Of particular interest in this study are the variables that contribute to the dependent variable of total time spent with media. To fit a general linear model to the variables under scrutiny in this investigation, it was necessary to combine and recombine some variables. Mobility was originally conceived to be the extent to which one was able to
move independently about their surroundings. However, in reality, some individuals with severe physical restrictions were afforded tremendous freedoms by family members who took them out of their physical surroundings. For example, orthopedic patients who were unable to navigate their surroundings independently used wheelchairs and relied on family to transport them to remote areas of the hospital. Thus, the variable of "mobility" was modified to "new mobility" which indicated whether patients were able to move of their own volition or whether they depended on others for assistance. Also, the variable of mood was reconstructed to reflect a reading for a given day. As indicated earlier, moods were relatively enduring, thus patients were assigned a 1 if the mood was negative for the day, a 2 if it was positive, and a 3 if moods were mixed or variable throughout the day. Moreover, because of the influence of mood and gender on media use, the variables were combined to test for an interaction effect. Further the variable of medical or surgical diagnosis was included in the general linear model, because of its influence on mobility.

Media uses and gratifications research relies heavily on demographic variables to explain variations in media use patterns. Consequently, the variables of age, gender, and race were included in the general linear model. Thus, the ANOVA model comprised of the variables of race, age, gender, new mobility, diagnosis, mood day 1, and mood day 1 * gender. This ANOVA model yielded an R-Square of 0.398352, with p=.0099 (See Appendix J: Table 19: Analysis of Variance of Influences Contributing to Total Time that Patients Spend with Media).

The ANOVA analysis revealed that for every year of age, total time engaged in media use diminished by 11.68 minutes. Hence, for every decade of age, media use was down by 116.8 minutes or almost 2 hours.

The interaction of Day 1 Mood and gender also produced interesting combinations, results are displayed in Figure 5: Total Time in Minutes with Media by Gender and
Mood. For females, the total time in minutes with media by mood is as follows: negative mood, 531; positive mood, 939; mixed moods, 1072. For males, the total time with media associated with moods is: negative, 1408; positive mood, 1109; and mixed moods, 543.

The above values are adjusted for age, race and other variables in the model. Particularly noteworthy is that when females were in negative mood states, their use of media decreased, whereas the opposite was true for males who used more media, significant at p=.01. Conversely, for males experiencing mixed moods during the day, media usage dropped, with p=.04. Though it appears in the diagram that males and females who are in positive mood states are similar in amounts of media use, the difference is not statistically significant, with p=.63.
SUMMARY

This naturalistic study was conducted in a hospital environment, where it was presumed that opportunities for gratifying experiences would be diminished. The assumption that the hospitalized audiences would be malcontent did not hold true as the patients who participated in this inquiry reported predominantly positive moods. This must be balanced against the fact that participation was voluntary; hence, there may have been a selection bias relative to predisposition toward affective state. Conversely, the naturalistic setting, in contrast to an experimental laboratory setting, introduces greater variability with the investigator having less control over variables.

Triangulation was applied in two phases of the research process. Multiple measures were used to collect data, obtained through interviews, bedside media logs, and medical records. Likewise, methods for data analysis were triangulated. Due to the preponderance of categorical data, descriptive statistics were used. Correlational analysis was performed to determine the relationship between visitors and the use of the telephone. Additionally an analysis of variance was conducted to identify factors accounting for increased time spent with media.

Total time with media was influenced by age, race, extent of mobility, and the interaction between mood day 1 and gender. Those who were unable to move about of their own volition were more apt to use media. African-Americans, the only minority participants in the investigation, were heavier users of media. Dysphoric males watched more television, whereas females in predominantly negative moods were inclined to avoid the media.
CHAPTER IV
SELECTIVITY AND COMMUNICATION MEDIA CHOICE
INTRODUCTION

The primary objective of this research was to collect preliminary information about communication media use by hospitalized patients. Several interesting phenomenon were observed. Under a variety of circumstances, hospitalized patients chose news, talk shows, and programs of an informative nature more frequently than any other type of television programming. This chapter will expand on the gratifications patients reported with the selection of such programming. Though many patients imported media, the communication media existing within the hospital setting were preeminent insofar as use by the majority of respondents. The telephone, as a unique medium for interpersonal communication, played an important role in sustaining continuity with family and friends, a phenomenon which will be discussed further in this chapter. Although statistical analysis did not reveal a difference in media uses between those in private and those in semi-private rooms, patient testimonies allude to a difference in motives, a phenomenon that will be described in greater detail later in the chapter. Finally, an account of conditions under which patients avoid the media will be presented. The chapter will close with a section on implications for additional research.
While some scholars have speculated that cognition and affect as processes may be so intertwined that separating them may be an impossibility (Syphen, Donohew, & Higgins, 1988), the empirical research of others indicates that the processes are distinct and can be differentiated (Dlimmick, Gordon, Musgrave, & Dobos, 1987). Leo Bogart (1980), however, claims that the generally accepted motive for television news viewing is entertainment and argues that increasingly news programming has become a part of American television, portraying an image of reality that is more intense, valid and complete than the reality depicted in the medium of print. News centers on and avers reality, while entertainment circumvents reality through transforming it to the realm of fantasy or by reducing the amount of cognitive involvement, as, for example, entertainment with music.

Nevertheless, information needs are salient factors associated with selective exposure to media of entertainment (Atkin, 1985). This has particular relevance for the investigation conducted, because under a variety of conditions, hospitalized patients chose news, information, and talk programs more frequently than other types of programming. Regardless of other influences, such as diagnosis (medical or surgical), moods and mobility, informative programming was the primary choice, followed by comedy programming.

The implication of this research is that select patient groups, such as those represented in this research, have a strong need to remain informed about conditions prevailing in the outside world. A majority of patients cited a motive of wanting to keep
informed as the primary reason for viewing informative programming. Recall that the
initiation of television use began about 8 A.M., when news broadcasts prevail, and
steadily increased over the course of morning talk shows, till news viewing peaked for
the Noon news; thereafter, television viewing deteriorated till around 5 P.M., when
viewing began to increase with the advent of early evening news programming. Despite
their confined states, the majority of individuals keenly felt the need to remain connected
to the real world, and television news filled this need for them.

As well, some patients experienced a need for personal identity which could be
satisfied through television viewing. One 70 year old woman who had been a missionary
along with her husband in former years related that she had a “high interest” in what
goes on abroad as a result of having worked in developing countries and having traveled
extensively. Additionally, during the course of this inquiry, Hurricane Andrew struck the
coast of Florida; news reporting was followed closely by some of those in confinement.
When one patient was asked about his interest in the hurricane, he answered that it was
unbelievable that something of that magnitude could happen and expressed satisfaction
from seeing community organizations rally to meet basic human needs. Another man, a
45 year old hospitalized for injuries incurred in a motorcycle accident, recounted that
when he was in the Navy in the 60’s, he “...rode a hurricane out” and added, “Until
you’ve done something like that, you’ve never been on a roller coaster ride.”

For some, the bond with television programming was even more intimate. A 26
year old mother of 2 preschool children sought out programs she typically watched with
her children, such as “Zorro,” “Who’s the Boss,” and an assortment of cartoons.
She disclosed that watching these programs made her feel close to her kids. A 60 year old male hospitalized with chronic obstructive lung disease carefully monitored progress of storms in Utica, Ohio. Over the course of his participation in the study, he told the investigator that of his 3 children, 2 were retarded and institutionalized when they reached adulthood. As his wife was disabled also, taking care of their exceptional children became an impossible task for them; thus, it followed that a potential threat to their son who was living a conventional life was of supreme interest to him. For some individuals, television news was an important source to shadow interpersonal concerns, albeit symbolically and tangentially.

Comedy fare ranked behind news and information type programming in its appeal to hospitalized patients. In the nursing home and convalescent care study conducted by Davis and Edwards (1975) cited earlier in this paper, patients and residents preferred game shows and dramas to comedy programming. The present investigation diverges from that study in that hospitalized patients preferred comedy to a higher degree. Humor is well known as an effective antidote to stress and tension (McGhee, 1980), and patients often reported gratifications related to transient, consummatory benefits. They explained their choices in comedy programming with phrases such as “It gives me a laugh,” “It’s funny,” and “I just like it.” Situation comedies were popular choices in entertainment fare, although a few patients watched cartoons. A 24 year old incomplete quadriplegic said he watched cartoons because they put him in a better mood. Another patient, a 50 year old man, hard pressed initially to give a reason for his selection of cartoons said, “I watched cartoons because I used to like them but I haven’t seen
them for a while.” In jest he added, “I found out why I quit watching them,” and pointed out that cartoons set reality aside in a way soaps do not.

Some of the patients did not turn their television sets off at any time during the study. Allen Rubin (1984) has identified 2 types of television viewing. Ritualized viewing is likely to be a habit performed often by a user who has high regard for the medium of television, whereas instrumental viewing is selective, has a purpose and is goal-directed. Instrumental viewing is infrequent and the viewer does not have a high regard for the medium of television. Rubin concludes that viewing motive is not a clear cut dichotomous variable, but rather that viewing motives are interrelated. The type of viewing depends on time, situation, and background influences on the viewer. As a matter of interest, 2 respondents in this study, both of whom were African-American, disclosed that in their homes, the television set was never turned off; in essence, the medium was like a major household appliance that was never turned off once it was plugged in. Under the condition of hospitalization, a selected few had their television sets on continuously. These patients were in semi-private as opposed to private rooms. One 24 year old Caucasian male who had television on continuously explained, “You need some stimulation. It’s there and moving...(pause)...some stimuli moving.” He concluded his observation by likening the television to an aquarium with something moving in the background. Indeed, the medium was an important source of stimulation and transient intellectual and emotional satisfaction for many patients.
MEDIATED INTERPERSONAL CONTACT

The major gratification associated with the telephone was its role in keeping psychological neighborhoods intact. The highest use of the medium was at 8 o'clock at night, after visitors departed. A notion that the telephone might be used more as a functional alternative by those with fewest visitors did not hold true, as is demonstrated in the positive correlation between telephone use times and number of visitors. Rather than “instead of,” the sentiment seemed to be “more of” as applied to social relations. The implication is that despite disruption in daily routines and in living quarters, the psychosocial need to maintain the social network prevailed. Further, visitors tended to call patients both prior to their arrival and after their departure, personifying the strength of the social bond.

Curiously, a third of the telephone conversations patients reported were not logged on their bedside sheets. This is due, in part, to the fact that the telephone serves a unique function in connecting individuals to each other and is considered to be a necessity, not a means of entertainment, for most people. Moreover, patients could not always recollect the timing of a phone call, though they were able to give the length of the conversation. Phone calls interrupt daily routines and are not linked to specific time frames as are television programs, thus there are fewer psychological markers to demarcate the time of use.

In most cases of phone use, personal calls were both made and received. Most often these were to share information, such as about medical progress, discharge plans, or to ask for supplies from home. Telephone calls proliferated among patients
anticipating surgery the following day. A mother of 8, for example, felt restless and anxious prior to surgery on her foot. The day of surgery was moved up, adding to her anxiety. She coped with the situation by making numerous calls in an attempt to notify all her children the day before surgery. In another situation, a 45 year old diabetic woman anticipating surgery for a foot ulcer the following day made several attempts to reach her daughter the evening before the scheduled surgery. She knew her daughter was at home but the answering machine intercepted the calls. After the third failed attempt to get through, the patient decided to seize the opportunity to talk to her dogs by means of the recorded message. The following day the daughter explained to the interviewer that she was unable to get to the phone and that her Mom had made about 7 calls. Uncertainty surrounding anticipated surgery prompted numerous phone calls.

As well, regulation of uncertainty, such as that introduced when a definitive diagnosis is made or when a treatment regime is instituted, also induced phone usage. For example, a man in his early thirties was admitted from an outlying hospital for tests and a diagnosis. He noted that prior to hearing his diagnosis, he did not use the phone much, except to stay in touch with his wife. Once he heard his diagnosis, however, he made serial calls to family and coworkers. As an owner of a business, he did not want his employees to be unduly exposed to the uncertainty introduced by his illness.

Some patients used the telephone as a source of social support and reassurance. A 19 year old female who was in an accident caused by a drunk driver had an unusually large number of visitors for extended times and was a heavy user of the telephone. In conveying to the investigator the extent of surgical repair work, she said that rods were
inserted into both legs and that her left arm had rods and screws in it. Nonetheless, her recuperation was excellent. Queried about how she would feel if she no longer had access to the telephone, she replied with a good-natured roar, "SUICIDAL!"

Another patient, looking much younger than his 71 years, relayed the content of a phone conversation with a good friend. The 2 men, both prone to rather frequent hospitalizations over the course of the past year, kept in close contact with each other "...to see who could stay out of the hospital the longest."

A patient in for anemia and renal failure had refused blood transfusions because he is a Jehovah Witness. He had not made outgoing phone calls from his hospital bed, but once he realized he would need dialysis treatments for the renal failure, he called two people he knew who were on dialysis treatments. The contacts were reassuring and he felt comforted knowing that he would not have to compromise his religious belief of not accepting blood from another person.

In summary, the telephone was considered a natural extension of the interpersonal environment and was treated as such. Times of use rated low salience, though the function served by the medium was significant. The phone was heavily used during transition times of change in the course of the hospitalization to relay information about medical progress. Most telephone calls were of relatively short duration.

MEDIA AND PUBLIC VERSUS PRIVATE SPACE

Environmental effects are most acute on those exposed to their surroundings for extended time periods, such as disabled, mentally or physically ill people, and the frail and elderly. Margaret Williams (1989) states that gerontologists call this the
"environmental docility hypothesis," advocating that those with failing competencies are more susceptible to environmental effects. As discussed in an earlier chapter, background noise in the hospital setting is a complex phenomenon in that the aural environment may be unacceptable when it is inappropriate, too loud, or discontinuous. An ordinary conversation may be unacceptable to one who is feeling vulnerable.

Carpenter and McLuhan (1960) submit that in the American culture, the senses of vision and hearing are trusted above all others. The phenomenon of hearing is unique in that there are no fixed boundaries on sounds, which are impervious to background. They continue, "The eye focuses, pinpoints, abstracts, locating each object in physical space, against a background; the ear, however, favors sound from any direction" (p. 67). Closing the eyes shuts out the visual field, but creatures endowed with a sense of hearing are continuously prepared to react to sound. Albeit that sight and sound work together complementing each other, yet vision is bounded and directed while hearing is all encompassing. Moreover, sound has the power to induce mental visual images.

Is it any wonder, then, that sound is of such salience to a hospitalized patient? Some respondents in the study complained of extraneous noises, while others were acutely aware of unusual quietness. Results of this investigation are inconclusive as to the relationship between the need for public versus private space and the use of media. On quantitative analysis, no differences were found in amount of media use between those in private and those in semi-private rooms, nor were the reported gratifications different under the two types of rooming arrangements. However, lack of statistical evidence may be a function of interview questions that lacked sensitivity to this phenomenon.
Several testimonies from patients, though anecdotal in nature, suggest that indeed there may be different motives for media use between those in private and those in semi-private rooms. When respondents were alone in the room, they often reported engaging in media use to pierce a silence. A 72 year old woman who experienced frequent episodes of restlessness and anxiety commented, “The hospital is such a quiet place on Saturday afternoon. You don’t see or hear anything.” She adapted by making 3 phone calls to close friends and family. More than once during the time she participated in the study, she praised the value of the phone at her bedside.

James Lull (1975) concluded from his ethnographic study of families and their use of television that sometimes television use is deliberate and at other times it is “happenstance,” whereby television serves as a stimulus to occupy time, numbing and shielding the user from cognitive processes and social interaction. A 41 year old male remarked, “It was quiet in here and I just turned it on for some noise.” He could not recall the program content but rationalized his behavior commenting, “…it keeps me from thinking too much.” At another time during the interview, he noted, “…a person tends to get more anxious or a lot lonelier if left alone.”

A female patient mentioned “I haven’t been watching it (television) per se but I’ve had it on to fill a void.” Later during the day, after her roommate’s return from surgery, she turned television off, so as not to annoy the roommate, and resorted to reading magazines instead.
In a setting such as a hospital, as staff and visitors congregate in rooms and in the halls, the potential for conversations increases. Some patients who found extraneous conversations disturbing retreated to their television sets, justifying their actions accordingly,

"I may not be watching (television) but I keep it on to keep the outside in."
"Television detracts from the conversations going on in the room"
"It takes your mind off things. There's so much going on that you need something to attract your attention."
"My roommate was talking to her visitor about a subject that bothered me, so I turned on news for a half hour."
"I can relax more with TV than with worrying about different things, like roommate. You can always turn TV off."

A woman who kept her television set on continuously observed that she preferred the noise on television to the noise emanating in the corridor. Interestingly, the following week the woman's roommate became a participant in the study. Although initially she watched only her soaps and some situation comedies, after exposure to her roommate's continuous television use, she too used her bedside television continuously. When the interviewer questioned her as to why the television set was always on, she replied that she did it "...for the heck of it."

Her comment indicates that perhaps individuals are oblivious to certain environmental features affecting media choices, thereby supporting Zillman's contention that selective exposure is often an unconscious process. In another situation, the investigator observed that sharing the room with the 24 year old male who likened his television to an aquarium was another young male who had the volume set at a level that was exceptionally high. After the roommate's discharge, the respondent was asked whether his former roommate's television bothered him and disclosed, "There were times I couldn't hear my own television, so I asked him to turn it down and he did."
The ultimate strategy one patient used in attaining privacy was to request a room change. He confided that his mood had become negative when a roommate was admitted. The roommate played a “boom box” which proved to be an offensive and intrusive environmental force. That the patient in the study had a high need for peace and solitude was reflected in his revelation to the interviewer that among his visitors that afternoon were his attorney and his Rabbi. Within hours of the roommate’s admission, the patient requested and was granted a transfer to a private room, where he spent more time reading the novel he brought from home.

Other patients also sidestepped their surroundings to assure their privacy needs. One lady made a list of things she wanted her husband to do at home, because she did not want her “bedmate” to hear. Another, a spontaneous, gregarious, 34 year old mother hospitalized with a complication of a chronic illness, went to a pay phone in the hospital rather than use the phone in her room. The 35 minute call, the longest she reported to the investigator, was to her 17 year old daughter and her 11 year old “baby boy.” The patient confessed that she anticipated giggling and talking to her children and did not want to disturb anyone in the room.

In conclusion, patient testimonies related to use of media and privatizing space were not uncommon during the course of this investigation. On only one occasion did a patient relate an incident of discontinuing media use to hear an extraneous environmental sound. The patient, a registered nurse who had recently been informed of her need for renal dialysis treatments, turned the television off when she heard her doctor’s voice in the hall. The patient, had recently been told that she would need to go on hemodialysis
and did not want to miss any information about her condition. Hers was the only report of discontinuing media use to hear better an extraneous conversation.

Privatization was evident also in the case of a 49 year old man who listened extensively to his radio, motivated by a desire to complete a 5 year Bible study program. He explained that he was aspiring to the ministry and that the program of study was a “continuing thing” in his life. Even the event of hospitalization did deter him from his overriding goal. Interestingly, to earn a living at the present time, he is a campus bus driver who listens to the same programming as he makes his rounds on campus. The radio use in the hospital is analogous to his everyday behavior - as he uses the radio to privatize the public space of the work setting, so did he use the medium to privatize the hospital setting.

To summarize, quantitative analysis revealed no differences between those in private and semi-private rooms, yet testimonials from patients suggest a difference in the way the mediums are used. Perhaps this is a function of the data collection method, with interview questions too broad to catch subtle differences in media gratifications.

GENDER, MOODS AND MEDIA

According to Mary Ann Fitzpatrick (1991), sociological expressions such as roles, class, groups, and norms tend to deflect attention from sexual dimorphism. Research in the field of marital communication has identified distinctions between the sexes. Fitzpatrick points out 4 areas in which differences in biological process may affect marital communication. These are cognition and verbal skills, activity level and aggression, sensory sensitivity, and parenting behaviors. In situations of marital conflict, for example, husbands exhibit greater physiological arousal than do wives.
The females in this investigation were more likely to report positive mood states than were the males. Perhaps this was a function of the meaning of illness to them and its impact on self-esteem. Hospitalization implies dependency on another to meet basic physiological needs, a reality that may have created greater anxiety for males. Men may associate their worth with independence, which may be threatened by a hospitalization. This may account for the fact that dysphoric states were more common among males.

The hospital setting provided a context in which gender differences were apparent. Content preferences were very similar, with only subtle differences. Men as well as females watched soap operas, and both sexes occasionally viewed television cartoons. Relative to television program content, the bulk of sports viewing that was reported was by males. Members of both sexes imported radios and headsets into the hospital setting. However, the men in this study did not use these media to listen to music, whereas the women listened to audiotapes of music that they enjoyed.

As Kubey and his colleagues have resolved, dysphoric males tend to be heavy television users, a fact that is apparent in this investigation as well. Males in negative mood states spent more time engaged in media use. Additionally, they raised more questions about the mood states listed on the Bedside Media Log. One man, for instance, said “How low have you got on that sheet?” to indicate his unpleasant frame of mind. Another revealed, “I’m not used to having feelings. Feelings are the where it hurts column.”

Women used various media to manage mood states, i.e. a need for relaxation prompted 2 of the women to listen to music on audiotapes. Of the two men who
brought in radios and headsets, neither used them. One said he forgot his tapes at home; the other claimed he just did not feel like listening to his tapes, though he frequently felt lonely and anxious in the hospital setting. One woman who had been the victim of an industrial accident and watched television intermittently commented, “I haven’t been able to find a program to relax my mind and capture my attention.”

Dolf Zillman (1991) argues that humor can be an effective therapy since it may help one snap out of a bad mood and divert cognitive processes from ruminating over the problems at hand. Humorous programming, he contends, may have therapeutic consequences as it is self-administered and can be administered by choice. Recall that comedy ranked second as to type of program viewed. When questioned as to gratifications associated with specific comedy programs, several respondents indicated that they watched because it made them laugh or that it was funny. One woman admitted that she sought out programs to make her laugh, since she wanted to make the best out of being in the hospital.

A 53 year old female awaiting surgery for a gallbladder removal acknowledged an aversion toward comedy programs on television. When she did chose to watch television, she selected news programs, soap operas, and dramas. Meanwhile, over the 48 hour time interval in which she participated in the study, she searched the Bible and profoundly rearranged preferred passages. On Day 1 of her participation in the study, she searched initially the book of Ecclesiastics for the passage commencing, “To everything there is a season...” Next she found the Psalm of the Good Shepherd, commonly known as Psalm 23, which assures faithful souls of God’s spiritual benefits.
Questioned as to her reason for seeking out the psalm, she responded simply “I live by it.” The words she selected to denote her mood states were “melancholy” and “reflective.”

On the second day of her involvement in the study, she read Psalm 121, which presents a vivid image of going to the house of the Lord. She then moved on to “The Beatitudes” and read about the promise of supreme blessings for the suffering and oppressed. She ended her biblical journey in the book of The Apocalypse concerning the final judgement.

Over the course of her participation in the study, she recounted her past crises. In the 1970’s, she had gynecologic surgery with resultant complications progressing to a cardiac arrest. Once her heart was restarted, she vowed to live for the sake of her 5 children. Shortly after being released from the hospital, her husband left her. In 1980, her oldest son was murdered in another state and was not found until 5 days afterwards. Since then, 2 nephews have died.

To state that she has an aversion to comedy is misleading without presenting some of the details of her life. That is not to say that she lacked a sense of humor. In fact, her appreciation for humor was evident in a comment about one of her favorite soap operas, which she referred to as “The Young and the Rest of Us.”

**INSTRUMENTAL MEDIA USE**

**Media Avoidance**

Some individuals exhibited almost a disdain for the media. For example, those who were hypersensitive to stimuli did not seek out gratifications through the use of media.
One woman admitted for meningitis and experiencing frequent headaches limited her viewing to "General Hospital," because, she said, "I love it!" Although she admitted being a fan of Oprah's, she did not watch her show. For those with heightened sensory awareness, the stimulation provided by the media was more aversive than rewarding. A classic symptom of diseases of the central nervous system is irritability in conjunction with a heightened awareness to sensory stimulations, which accounts for avoidance of incidental stimuli.

Additionally, the patients experiencing moderate to severe drug reactions were not inclined toward the media, nor were patients who were upset or annoyed over a situation. To illustrate, a 72 year old lady who developed problems with urinary incontinence following her back surgery spent much of the day upset over the condition.

Occasionally, patients would seek out gratifications in the interpersonal realm. Having been hospitalized for 4 weeks, a woman who admitted her affinity toward soap operas did not stay in her room long enough to watch these shows. Instead, she spent most of the day outside where she could smoke and interact informally with other patients who congregated outside by the fountains. Not surprisingly, she did not cite deficit related motives for television viewing, which was negligible. Her immediate gratification came from others like herself, with whom she could bare her soul. Outside the group members could laugh, smoke, giggle and even cry together. On the day she left to go home, another of the group members was found in tears over the parting.
One particular patient who said he was in for a rest in his weakened state and had no particular interest in media was minimally involved with the media during his hospitalization. He explained that he rarely watches television because he does not care for all the sex and killing portrayed. On a Sunday afternoon, however, the investigator entered the room to find a visitor present and a situation comedy on television. The next day, the patient admitted that when the situation comedy ended, he and his visitor watched a documentary. After the visitor left, he watched a football game. This is the only time the patient used any media during the 48 hour observation period. Social mores dictate that when a guest arrives, the resident offer drink or food; in this situation, where there was none to offer, it seemed as though the patient wanted to treat his guest to something good on television.

Discriminating Use of Media

Donohew, Finn, & Christ (1988) reviewed the literature in the field of social cognition and deduced that human beings as information processors are “cognitive misers,” willing to exert themselves only minimally mentally. The medium of television exploits this human foible through its aural presentation of information and by using a visual channel rich in information and offering an additional route to message interpretation. Patient behaviors reinforced this notion. For example, one 24 year old who had foot surgery did not read the material she had imported, claiming that she could not focus on the print material; she could, however, watch television and derive gratification of a transitory nature. A 68 year old woman observed that on a Saturday evening, she
watched the following line up of situation comedies - "Golden Girls," "Empty Nest," and "Nurses." About her media choices, she affirmed, "You just don't have to do a lot of concentrating to watch these programs." Another woman, a rather large 73 year old, who had been in a car accident and sustained multiple fractures, found moving about difficult. She said that someone brought her a newspaper but that she did not use it because it was too cumbersome. A few days after the accident, she was able to read portions of Reader’s Digest and Red Book for short periods of time.

The readers who were selective in their choice of books needed freedom from interruptions to concentrate, otherwise reading was more frustrating than gratifying. One patient, attempting to read a historical novel, was constantly interrupted by hospital personnel one afternoon, so he gave up reading, contending he "...couldn't get anything done." Drawing the same conclusion, another man saved Anything for Billy, divided by short, simple chapters, to pass time while he received whirlpool treatments, and A Sorrow of the Heart, a penetrating book about the life of Tecumsah, for times when he felt he would be uninterrupted.

In conclusion, in addition to media use by "happenstance," some media choices were deliberately planned and executed. Choices that were made by careful preplanning required freedom from interruption to insure gratifying use of the medium.
Though this inquiry is but a beginning step to ascertain the influence of media in the lives of hospitalized patients, there are related communication issues which merit research. For example, as demonstrated in this study, some highly anxious patients avoided television programming and turned to the telephone as a way to cope with their situations. The implication is that personality factors influence reaction to demands imposed by a different environment. Although research related to personality factors and media use has begun, the construct of personality is complex and much remains to be achieved. To illustrate, psychiatrists Geringer and Stern (1986) contend that at certain points in time, such as in illness, there is a psychological regression. This may have implications for use of communication media, since personality determines how one copes with an illness. What specific personal resources, mobilized during times of crisis, influence use of communication media?

Canary and Spitzberg (1991) studied the relationship between loneliness and media use. They distinguished between situational loneliness, a short term condition arising from environmental circumstances, and chronic loneliness that is associated with deficient social skills. The investigators concluded that there is no simple linear relationship between loneliness and media gratification. Their findings suggest that situationally lonely people are likely to obtain greater satisfaction from media use; media use behaviors of chronically lonely individuals are less instrumental and more habituated, offering a lower level of satisfaction associated with the escape motive. Loneliness is but one
aspect of personality. Other facets such as coping behaviors warrant investigation as well.

Additional research on selective exposure is indicated, especially in regard to the dynamic nature of media use motives. Donohew, et al. (1988), assert that evidence for television use relative to a need for a satisfactory stimulus environment is mounting. Even so, little is known about other sources of need satisfaction and access to these. As indicated earlier in this chapter, one reason cited for media avoidance in this investigation was a concern that media use would be interrupted and, hence, less rewarding than refraining from media use. Furthermore, media use motives may change and/or be hard to articulate. Motives for media choices are dynamic, not static. A case in point is a man who watched very little television at home but refrained from turning the medium off following his surgery. His roommate snored, even during the daytime hours, and had no bladder control. For the first day of participation, he explained his continuous television use by saying, "...it detracts from conversations going on in the room." On the second day of participation in the study, however, he indicated that the television was on as a means to fill time. The environmental circumstances were identical except for the fact that he was being released from the hospital.

In summary, the implication for research is to identify specifically the dynamic nature of media uses and gratifications. A related research concern extends the notion of media gratification. Reardon and Rogers (1986) have argued that there is a false dichotomy between interpersonal and mass communication. Rubin and Rubin (1985) propose that the media uses and gratifications construct would be a viable perspective
for the study of communication in general. Individuals have motives and needs in their interpersonal interactions as well as in their media choices. Perhaps interpersonal communication is in reality a functional alternative for media use. In this study, not infrequently interpersonal sources of gratification were chosen over media gratification. Consider the low frequency of media use after a visitor arrived, when patients were less likely to initiate media use. Also consider the narrative of the woman who sacrificed her soap operas to be outside by the fountains with other patients - laughing, talking, smoking, and even crying. Certainly more research studies involving both forms of communication, i.e., interpersonal and mass communication, are warranted.

The Hospital as a Research Site

The convenience sample used in this investigation leaned toward homogeneity and did not represent the hospital population in general. Hence, additional research is needed with different patient populations on other units of the hospital. There has been little empirical inquiry as to patient moods in general. Much of what is known is from data collected in Great Britain and there may be cultural variations in operation. Further, differences may exist within hospitals in the United States. This study was conducted in a large teaching hospital associated with a university; smaller, outlying community hospitals are diverse and should be included in research endeavors.

The mood states of patients were surprisingly consistent for each individual. Undoubtedly moods are linked to personality influences, which mass media uses and gratifications research is beginning to recognize as a important factor in media choices. The implication for research then, becomes the relationship between personality factors and
media uses under conditions of hospitalization. How do personality traits affect adjustment to hospitalization and how do they relate to communication media choices?

Recall that humorous programming was the second most popular choice of program content. Individuals vary in regard to their preferences for humorous content, though the beneficial value of exposure to humor is well recognized for it ability to decrease stress and tension. The use of humor as a distraction technique for aversive symptoms, such as pain, may be a fruitful research endeavor.

Pain management is an important consideration in the hospital setting, yet much remains unknown about the complex phenomenon of pain. Recall that several of the patients in this study reported using media to cope with bothersome symptoms and pain. The research of Stevenson, French, Tenckhoff, Maeda, Wright, and Zamberlin (1990) demonstrates that in a pediatric population videotapes can be effectively used in place of sedation to gain cooperation during echocardiographic examinations. Using age appropriate videotapes, complete examinations were performed on 35 of 38 patients. This may have value with other patient populations as well and merits trials under diverse circumstances.

Consider that media use peaked at the end of the day, after visiting hours and with the beginning of prime time television. A plausible explanation may be that media use offers a valid alternative to fill an empty dimension of time and space with the cessation of interpersonal contacts. On the other hand, media may be used ritualistically in preparation for retiring for the night. Little is known about the fit between interpersonal and
mediated communication in meeting human needs. Some glimmerings emerged in this study. Mass media fell short of meeting interpersonal needs. The television, when used by a lonely patient, for example, was used for the noise it provided; in essence, sound emanating from the television set filled an empty time-space dimension. Additionally, those patients who were acutely distressed over their circumstances turned to interpersonal channels, such as the telephone and face to face encounters. The phone was used to facilitate social interaction. Further, some patients abandon the use of television, even to the extent of foregoing programs they routinely watched, in favor of active involvement with their surroundings. For example, a woman scheduled to have surgery which would require that she be immobile for 6 weeks chose to go outside the hospital with her daughter, though it meant missing a soap opera she routinely watched.

Another domain for research is noise in hospitals. Environmental sounds are highly significant for hospitalized patients, yet this phenomenon has been neglected by researchers. Patients cannot escape the sounds, but select accounts by participants in this study indicate that they do try to regulate aversive sounds. Research efforts directly related to privatization in public places is warranted. In assessing this phenomenon, it would be necessary to probe beneath the obvious, especially since patients do not always articulate the concerns.

Moreover, the interface of interpersonal and mass communication has important ramifications in the health care arena and these need explication. To illustrate, a patient in this study was upset because she developed a complication which delayed her discharge date by several days. Originally she was admitted in respiratory distress and was
on a respirator, so she had been through much already. When her doctor informed her of
the complication, she became depressed and decided to read The Road Less Traveled,
which a friend had brought to her. She did not, however, find the book comforting.
Later a nurse entered the room and the patient ventilated her disappointment over the
delayed discharge. The patient reported feeling much better when the nurse told her
about someone else who was admitted at the same time with the same condition and was
still on the respirator. Immediately, the respondent felt reassured. Thus, empirical
investigation is needed on "high tech, high touch" in health care settings.

THE RESEARCH SETTING: HOSPITAL VERSUS HOME

The study of research environments poses intriguing possibilities. Confinement to a
hospital room does not prevent the patient from experiencing a reality that is uniquely
their own. Although it may be true that the hospital environment will impose constraints
and perhaps make some demands, patient responses vary in accord with their value
systems, mode of adapting to novel situations, and the like. The common assumption is
that one enjoys a high degree of freedom in one's own home. However, this notion must
be balanced against demands on an individual, such as a work schedule, household
maintenance chores, and family obligations. In the hospital setting, where one is presum­
ably a captive, there may be more personal freedom in that a work schedule is sus­
pended, household duties are nonexistent, and family members generally behave in a
supportive fashion making fewer demands on the patient. Thus, the hospital context may
be advantageous for investigating media use behaviors. As well, there are implications
for experimental studies which often induce the stress response in research subjects; by
the nature of hospitalization, patients feel stress. In summary, the hospitalized audience is captive, free of time-consuming obligations, and presumably under the influence of stressful factors.

CONCLUSION

The words of H. J. Hsia are a poignant reminder of the potential of the field of human communication to affect the human condition,

We have been very much affected by TV but we have not conducted a single study to delineate the longitudinal, continuous, incremental, additive, and perhaps addictive effects of TV. Medicine gives us an illustrative case. Medical research has been much better endowed than any other branch of the sciences or art. Enormous amounts of federal and private funds have been spent on medical research for diseases as serious as cancer and as common as acne and constipation. Cancer prevention can and will save more lives than any research results that can be discovered in the short run. But communication can do more! (p. 9)

Certainly, the above quotation is not meant to deprecate the contributions of medical science. The message is clear, however, that much remains to be accomplished within the field of communication. Communication permeates all facets of human life. Despite the fact that communication media penetrate the time space dimension surrounding an individual, the incremental, continuous, and additive effects on an individual remain unknown.

The investigation conducted is a precursory effort to identify media uses by hospitalized patients and to ascertain motives associated with use. Indeed, the phenomenon of mediated communication contributed to the overall well-being of patients. The health sciences
acknowledge the value of social support and interpersonal contact in clinical settings. To attain this end, the communication medium of the telephone was frequently used to bolster interpersonal communication, especially by patients plagued by anxiety and uncertainty. Mass communication also proved to be an important feature in making patients feel connected to the world at large, as is apparent in their reports of shadowing events of local and national repute. Additionally, the media provided a way to cope with aversive internal (such as symptoms, including pain) and external stimuli (that is extraneous conversations and mundane surroundings). Patients involved in the study used the media at their own discretion and did so with relative frequency.
LIST OF REFERENCES


APPENDIX A

AUTHORIZATION
THE OHIO STATE UNIVERSITY HOSPITALS
DIVISION OF NURSING

CLINICAL NURSING INVESTIGATION COMMITTEE

Action Report of the Committee Review

PROTOCOL NO. 136

RESEARCH PROPOSAL TITLE: Psychological and Physiological Influences on the Use of

Entertainment Mediums by Hospitalized Patients

PRINCIPAL INVESTIGATOR(S)           POSITION TITLE           AFFILIATION & ADDRESS

John Dimmick                      Associate Professor, Dept. of Communication 427 Neil Hall 1634 Neil Avenue

Deanna Gordon, M.P.H., EN          Doctoral Candidate, Dept. of Communication 1355 Windham Road Columbus, OH 43220 457-9238

THE COMMITTEE HAS TAKEN THE FOLLOWING ACTION:

X APPROVED

APPROVED WITH CONDITIONS *

DISAPPROVED

* Conditions stated by the committee have been met (will be met) by the Investigator and, therefore, the protocol is approved.

It is the responsibility of the Principal Investigator(s) to report any problems to the Clinical Nursing Investigation Committee. NO PROCEDURAL CHANGES MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE COMMITTEE.

DATE: December 21, 1991 SIGNED: Chairperson

DATE: December 21, 1991 SIGNED: Administrator, Nursing Service

cc: Original to Principal Investigator
File
Director of Nursing Department
Administrator, Nursing Service

pjs:ncicarc
APPENDIX B

SOLICITATION SCRIPT
INFORMATION SHEET - Study on the uses of entertainment mediums

My name is Deanna Gordon and I am a registered nurse. Presently John Dimmick, an Associate Professor of Communication here at The Ohio State University, and I are conducting a study concerning the use of entertainment mediums by hospitalized patients, such as yourself. By an entertainment medium, I mean the television set and the telephone at your bedside. In addition, media may be imported. Often people bring in books, magazines, and even radios from home.

Thus far, there is very little information in the health sciences literature pertaining to how patients may use the entertainment mediums to pass time and to amuse themselves while they are in confinement. I am here today to ask you to participate in a study designed to address the issue of how and why hospitalized patients use entertainment mediums and what gratifications these mediums provide to hospitalized patients.

Before I proceed to tell you about what your participation would involve, do you have any questions of me?

Participation is voluntary. This means that your participation or non-participation in the study will not affect the quality of care you receive during your hospitalization. If you were to participate in this study, there would be no special procedure involved that would cause you pain or discomfort. You would be required to provide information regarding your moods and feelings, and perhaps you might find that bothersome. At all times during the study, you retain the right to refuse to answer any questions that might be asked.

If you would agree to take part in this study, I would leave this Bedside Media Log for you. Every time you would use a medium, you would write down the time, type of medium, its content (drama, music, news and the like) and your general mood. Notice that at the bottom of the log typical moods are listed. Use these as a guide to record your mood states. Tomorrow, I'd be back to ask you questions about your notations on the log. In addition, I would want to interview you about your media use in general, that is, when you are at home, and about your daily routine. I would expect this interview to take an hour and we would schedule it to fit in with your schedule here at the hospital. Your participation would cover the course of three days. During the period of the study, I would examine your medical record on a daily basis and note your medical progress.

Should you agree to participate, I would need your signature on this consent form (SHOW PATIENT CONSENT FORM). Let me assure you that confidentiality will be maintained during the course of the study and after the research is completed. Once you begin in the study, you would have the option of withdrawing your consent and discontinuing your participation at any time and you would not be penalized in any way.

Do you have any questions? Thank you for your consideration of this matter.

(Rev. 11/91)
APPENDIX C

CONSENT FOR PARTICIPATION
THE OHIO STATE UNIVERSITY

CONSENT FOR PARTICIPATION IN
SOCIAL AND BEHAVIORAL RESEARCH

I consent to participating in (or my child's participation in) research entitled:
Psychological and physiological influences on the use of entertainment mediums by hospitalized patients.

John Dimnick/Deanna Gordon - or his/her authorized representative has explained the purpose of the study, the procedures to be followed, and the expected duration of my (my child's) participation. Possible benefits of the study have been described as have alternative procedures, if such procedures are applicable and available.

I acknowledge that I have had the opportunity to obtain additional information regarding the study and that any questions I have raised have been answered to my full satisfaction. Further, I understand that I am (my child is) free to withdraw consent at any time and to discontinue participation in the study without prejudice to me (my child).

Finally, I acknowledge that I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Date: November 1, 1991

Signed: ____________________________
(Participant)

Signed: ____________________________
(Principal investigator or his/
her Authorized Representative)

Signed: ____________________________
(Person Authorized to Consent
for Participant - If Required)

Witness: ____________________________
APPENDIX D

BEDSIDE MEDIA LOG
## BEDSIDE MEDIA LOG

<table>
<thead>
<tr>
<th>Time</th>
<th>General Mood</th>
<th>Type of Medium</th>
<th>Program Choice</th>
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</table>

Feelings/Mood Rating Scale

1. Gloomy/Sad   2. Satisfied/Content
3. Sentimental/Melancholy  4. Anxious/Restless
7. Lonely  8. Other - Specify_____
APPENDIX E

MOOD DEFINITION SHEET
Typical mood states are as follows:

1. Gloomy/sad - not uncommonly patients are unhappy about their illness and the experience of hospital placement. Additionally, worry over the disease itself is a cause for sorrow.

2. Satisfaction/contentment - a sense of feeling at ease and composed in a given situation.

3. Sentimental/melancholy - sometimes there is a desire to return to the way things once were, and a sentimental mood sets in. The time spent in a hospital bed provide some with a chance to think and reminisce.

4. Anxious/restless - the sensation of uneasiness or impending doom, psychological tension, and apprehension.

5. Bored/unfulfilled - exacerbated by being in confinement with minimal stimulation. One may grow weary from a constant state of dullness.

6. Cheerful/optimistic - this is a common emotion when the patient begins to see progress in their medical trajectory; also, good news about the disease from a physician tends to elevate mood.

7. Loneliness - sense of being alone and without social support or companionship.

8. Other - open-ended option to accommodate responses not included in the categorizing system.
II. Now I'm going to state part of a sentence for you and I want you to complete it. (FOR EACH MEDIUM USE, PROVIDE THE APPROPRIATE STEM, I.E., "I WATCHED ___________ BECAUSE" OR "I USED THE TELEPHONE BECAUSE___________.")

I ______________________ because __________________.
I ______________________ because __________________.
I ______________________ because __________________.
I ______________________ because __________________.
I ______________________ because __________________.
I ______________________ because __________________.
I ______________________ because __________________.
I ______________________ because __________________.
I ______________________ because __________________.

II. Did you have a roommate or spouse present in the room yesterday? If yes, tell me something about that.

III. How physically active were you yesterday?

_____ Bedrest _____ Up in chair _____ Walking in Hall
INTAKE QUESTIONNAIRE: Lifestyle and media habits

I. I'd like to ask you some questions about your daily activities and use of entertainment mediums, but first I want to know more about your reason for hospitalization.

A. In your own words, tell me why you are here.

B. Are you experiencing any pain during this hospitalization? If so, describe it to me.

II. Now I would like to hear about your use of the mediums of communication, such as the radio, television, print material, and the telephone.

A. Let's start with the radio. At what times of the day do you listen?

How many hours a day do you listen?

What is your favorite programming?

What do you suppose prompts you to listen?

How would you feel if you no longer had access to the radio?

B. Let's talk about your television viewing. At what times during the day do you watch television?

How many hours a day do you watch?

What is your favorite programming?
What do you suppose prompts you to watch these?

How would you feel if you no longer had access to the television?

Now that you are in the hospital what types of programming do you watch?

What satisfaction do you get from watching television now that you are in the hospital?

C. What about print materials? What kinds of things do you read during the day?

Is there a set time of the day that you do your reading?

How many minutes/hours a day do you spend reading?

What is your favorite reading material?

Recall the title of the last book you read.

What do you suppose prompts you to read?

Did you bring any reading material here to the hospital? (If yes, specify type and ask about satisfaction derived.)

How would you feel if you no longer had access to the reading material (magazines/newspapers)?

D. Now I would like to know more about your use of the telephone. When do you tend to talk on the phone?

About how many times a day do you talk on the phone?

Do you use the phone for business or social reasons primarily?
What is likely to you prompt you to pick up the phone to make a call?

Now that you are in the hospital, what purpose is the telephone serving for you?

In general how would you feel if you no longer had access to the phone?

E. Did you bring any entertainment mediums to the hospital with you?
   _____ Yes
   _____ No

   If yes, what mediums?

F. What entertainment medium do you miss the most now that you are in the hospital? Tell me more about this.

III. Tell me something about how you spend your typical day.
    What time do you get up, what happens next.............
    .......................what activities precede bedtime?
APPENDIX H

DOCUMENT FROM PATIENT'S CHART
Documentation from Patient’s Record

Name_____________________

Age_____________________

Gender_____________________

Employment_____________________

Summary of diagnosis and treatment:

Record of PRN pain medication

<table>
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<tr>
<th>Date</th>
<th>Time</th>
<th>Medication</th>
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## CODE BOOK

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</tr>
<tr>
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<td>First</td>
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</tr>
<tr>
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<td></td>
<td>Soap opera</td>
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<td>Game</td>
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<td></td>
<td>Variety/music</td>
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<td>No. of visitors</td>
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<td>9</td>
<td>Self-report moods</td>
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Anxious/restless 4
Bored/unfulfilled 5
Cheerful/optimistic 6
Lonely 7
Other 8
Sleepy/asleep 9

10 Motive
Arousal/enjoyment 1
Learning
  information 2
Relaxation/unwind 3
Pass time/habit 4
Lonely/companion 5
Escape 6
Lullaby 7
Distraction 8
Deference 9

11 Roommate
No 0
Yes 1

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<tr>
<td></td>
<td></td>
<td>Medical 1</td>
</tr>
<tr>
<td>6</td>
<td>Treatment</td>
<td>Surgical 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medical 1</td>
</tr>
<tr>
<td>7</td>
<td>Room arrangement</td>
<td>Semi-private 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Private 1</td>
</tr>
<tr>
<td>8</td>
<td>PRN requests - Day 1</td>
<td>Number 0, 1, 2, ... 7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PCA 8</td>
</tr>
<tr>
<td>9</td>
<td>PRN requests - Day 2</td>
<td>Number 0, 1, 2, ... 7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PCA 8</td>
</tr>
<tr>
<td>10</td>
<td>Mobility - Day 1</td>
<td>Bed 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chair 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Out of room 3</td>
</tr>
<tr>
<td>11</td>
<td>Mobility - Day 2</td>
<td>Bed 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chair 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Out of room 3</td>
</tr>
<tr>
<td>Column</td>
<td>Variable</td>
<td>Code</td>
</tr>
<tr>
<td>--------</td>
<td>---------------------</td>
<td>------</td>
</tr>
<tr>
<td>12</td>
<td>Needs Assistance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Diagnosis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Orthopedic</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Accident</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Infection</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Internal Medicine</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>Status</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-operative</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Pre-diagnosis</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Under treatment</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Post-operative</td>
<td>4</td>
</tr>
<tr>
<td>15</td>
<td>Unit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infectious Disease</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Surgery</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Medical</td>
<td>3</td>
</tr>
<tr>
<td>16 &amp; 17</td>
<td>Moods</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Mixed</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>General Medium Gratification</td>
<td></td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Arousal</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Information</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Compensation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Escape</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX J

TABLES
Table 1: Communication Media and Frequency of Selections

<table>
<thead>
<tr>
<th>Medium</th>
<th>Times Selected</th>
<th>(Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television</td>
<td>763</td>
<td>63</td>
</tr>
<tr>
<td>Telephone</td>
<td>345</td>
<td>28</td>
</tr>
<tr>
<td>Print</td>
<td>90</td>
<td>7.5</td>
</tr>
<tr>
<td>Radios/tapes</td>
<td>16</td>
<td>1.5</td>
</tr>
</tbody>
</table>

1214 TOTAL
Table 2: Imported Media

<table>
<thead>
<tr>
<th>Type of Medium</th>
<th>Number Imported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print</td>
<td>61</td>
</tr>
<tr>
<td>Magazines</td>
<td>20</td>
</tr>
<tr>
<td>Books</td>
<td>16</td>
</tr>
<tr>
<td>Newspapers</td>
<td>14</td>
</tr>
<tr>
<td>Word puzzles</td>
<td>9</td>
</tr>
<tr>
<td>Bibles</td>
<td>2</td>
</tr>
<tr>
<td>Radios</td>
<td>4</td>
</tr>
<tr>
<td>Headsets/tapes</td>
<td>6</td>
</tr>
<tr>
<td>Camera/photos</td>
<td>1</td>
</tr>
<tr>
<td><strong>72 TOTAL</strong></td>
<td></td>
</tr>
</tbody>
</table>
Table 3: Medium and Type of Content Selected.

<table>
<thead>
<tr>
<th>Medium</th>
<th>Content Selected</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television</td>
<td>Newscasts</td>
<td>314</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Talk/interview</td>
<td>104</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Comedy</td>
<td>123</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Drama/adventure</td>
<td>84</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Movies</td>
<td>73</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Soap operas</td>
<td>74</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Game shows</td>
<td>57</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>Music/variety</td>
<td>56</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>Sports</td>
<td>43</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Unknown</td>
<td>64</td>
<td>7</td>
</tr>
<tr>
<td>Telephone</td>
<td>Personal reasons</td>
<td>358</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>Business purposes</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td>Radio</td>
<td>Headsets for music</td>
<td>12</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Talk programming</td>
<td>6</td>
<td>34</td>
</tr>
</tbody>
</table>
Table 4: Gratifications Associated with Specific Media
by Number of Respondents

<table>
<thead>
<tr>
<th>Gratification</th>
<th>Television</th>
<th>Telephone</th>
</tr>
</thead>
<tbody>
<tr>
<td>None or hardly any</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Companionship</td>
<td>4</td>
<td>30</td>
</tr>
<tr>
<td>Information/Learning</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Fill time</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>Escape</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Cope with boredom</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Habit</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Cope with loneliness</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Gives someone else to talk to</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>For cheering up</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Source of support</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Gives social contact</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>To order food, supplies, etc.</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Conduct business</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>60</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>
Table 5: Medium Type and Gratification.

<table>
<thead>
<tr>
<th>Medium Type</th>
<th>Television</th>
<th>Print</th>
<th>Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoy/Arouse</td>
<td>306 (39%)</td>
<td>28 (32%)</td>
<td>3 (17%)</td>
</tr>
<tr>
<td>Learn/Inform</td>
<td>124 (16%)</td>
<td>25 (29%)</td>
<td>7 (39%)</td>
</tr>
<tr>
<td>Compensate</td>
<td>348 (45%)</td>
<td>34 (39%)</td>
<td>8 (44%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>778</td>
<td>87</td>
<td>18</td>
</tr>
</tbody>
</table>
### Table 6: Gratifications and Program Choices

<table>
<thead>
<tr>
<th>Gratification</th>
<th>Arouse/Enjoy</th>
<th>Learn/Inform</th>
<th>Compensate</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>News</td>
<td>84 (27%)</td>
<td>133 (43%)</td>
<td>92 (30%)</td>
<td>309</td>
</tr>
<tr>
<td>Comedy</td>
<td>71 (36%)</td>
<td>4 (2%)</td>
<td>121 (62%)</td>
<td>196</td>
</tr>
<tr>
<td>Sports</td>
<td>27 (63%)</td>
<td>4 (9%)</td>
<td>12 (28%)</td>
<td>43</td>
</tr>
<tr>
<td>Movie</td>
<td>40 (55%)</td>
<td>0 (0%)</td>
<td>33 (45%)</td>
<td>73</td>
</tr>
<tr>
<td>Soap Opera</td>
<td>22 (30%)</td>
<td>2 (3%)</td>
<td>50 (67%)</td>
<td>74</td>
</tr>
<tr>
<td>Game</td>
<td>30 (53%)</td>
<td>3 (5%)</td>
<td>24 (42%)</td>
<td>57</td>
</tr>
<tr>
<td>Variety 19</td>
<td>(34%)</td>
<td>6 (11%)</td>
<td>31 (55%)</td>
<td>56</td>
</tr>
<tr>
<td>Adventure/</td>
<td>44 (52%)</td>
<td>3 (4%)</td>
<td>37 (44%)</td>
<td>84</td>
</tr>
<tr>
<td>Drama</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mood State</td>
<td>Number</td>
<td>Percent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>--------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sad</td>
<td>54</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>524</td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sentimental</td>
<td>35</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxious</td>
<td>122</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bored</td>
<td>125</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheerful</td>
<td>206</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lonely</td>
<td>47</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Negative)</td>
<td>145</td>
<td>10</td>
<td></td>
<td></td>
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Table 7: Accounts of Mood States
Table 8: Medium Choice by Positive and Negative Moods

<table>
<thead>
<tr>
<th>Medium</th>
<th>Positive</th>
<th></th>
<th>Negative</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Television</td>
<td>429</td>
<td>63</td>
<td>326</td>
<td>63</td>
</tr>
<tr>
<td>Telephone</td>
<td>231</td>
<td>34</td>
<td>147</td>
<td>29</td>
</tr>
<tr>
<td>Print material</td>
<td>11</td>
<td>1.5</td>
<td>34</td>
<td>7</td>
</tr>
<tr>
<td>Radios and audiotapes</td>
<td>11</td>
<td>1.5</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>682</strong></td>
<td><strong>513</strong></td>
<td><strong>682</strong></td>
<td><strong>513</strong></td>
</tr>
</tbody>
</table>
Table 9: Program Choices by Negative and Positive Moods

<table>
<thead>
<tr>
<th>Program Choice</th>
<th>Negative Mood</th>
<th>Positive Mood</th>
</tr>
</thead>
<tbody>
<tr>
<td>News</td>
<td>123 (34%)</td>
<td>189 (38%)</td>
</tr>
<tr>
<td>Comedy</td>
<td>49 (13%)</td>
<td>71 (14%)</td>
</tr>
<tr>
<td>Adventure/Drama</td>
<td>35 (10%)</td>
<td>49 (10%)</td>
</tr>
<tr>
<td>Movies</td>
<td>33 (9%)</td>
<td>38 (8%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>29 (8%)</td>
<td>18 (4%)</td>
</tr>
<tr>
<td>Soap Operas</td>
<td>28 (8%)</td>
<td>45 (9%)</td>
</tr>
<tr>
<td>Game Shows</td>
<td>26 (7%)</td>
<td>31 (6%)</td>
</tr>
<tr>
<td>Sports</td>
<td>21 (6%)</td>
<td>22 (4%)</td>
</tr>
<tr>
<td>Variety/Music</td>
<td>20 (5%)</td>
<td>35 (7%)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>364</strong></td>
<td><strong>498</strong></td>
</tr>
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</table>
Table 10: Time of Day and Requests for Pain Medication.

<table>
<thead>
<tr>
<th>Morning Time</th>
<th>Requests</th>
<th>Time</th>
<th>Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midnight to 12:59</td>
<td>12</td>
<td>Noon to 12:59</td>
<td>10</td>
</tr>
<tr>
<td>1:00 - 1:59</td>
<td>2</td>
<td>1:00 - 1:59</td>
<td>6</td>
</tr>
<tr>
<td>2:00 - 2:59</td>
<td>7</td>
<td>2:00 - 2:59</td>
<td>9</td>
</tr>
<tr>
<td>3:00 - 3:59</td>
<td>3</td>
<td>3:00 - 3:59</td>
<td>6</td>
</tr>
<tr>
<td>4:00 - 4:59</td>
<td>6</td>
<td>4:00 - 4:59</td>
<td>6</td>
</tr>
<tr>
<td>5:00 - 5:59</td>
<td>2</td>
<td>5:00 - 5:59</td>
<td>11</td>
</tr>
<tr>
<td>6:00 - 6:59</td>
<td>8</td>
<td>6:00 - 6:59</td>
<td>6</td>
</tr>
<tr>
<td>7:00 - 7:59</td>
<td>1</td>
<td>7:00 - 7:59</td>
<td>6</td>
</tr>
<tr>
<td>8:00 - 8:59</td>
<td>13</td>
<td>8:00 - 8:59</td>
<td>13</td>
</tr>
<tr>
<td>9:00 - 9:59</td>
<td>10</td>
<td>9:00 - 9:59</td>
<td>10</td>
</tr>
<tr>
<td>10:00 - 10:59</td>
<td>10</td>
<td>10:00 - 10:59</td>
<td>5</td>
</tr>
<tr>
<td>11:00 - 11:59</td>
<td>6</td>
<td>11:00 - 11:59</td>
<td>6</td>
</tr>
</tbody>
</table>
Table 11: Mobility and Choices in Television Programming

<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Bedrest</th>
<th>In Chair</th>
<th>Ambulatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of Viewing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>153</td>
<td>432</td>
<td>303</td>
</tr>
<tr>
<td>Percent</td>
<td>17</td>
<td>49</td>
<td>34</td>
</tr>
<tr>
<td>Programming Preference</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Choice</td>
<td>News/Talk Information</td>
<td>News/Talk Information</td>
<td>News/Talk Information</td>
</tr>
<tr>
<td>Second Choice</td>
<td>Comedy</td>
<td>Comedy</td>
<td>Comedy</td>
</tr>
<tr>
<td>Third Choice</td>
<td>Adventure/ Drama</td>
<td>Adventure/ Drama</td>
<td>Game Shows</td>
</tr>
</tbody>
</table>
Table 12: t-Test for Television Use and Rooming Arrangement

<table>
<thead>
<tr>
<th>Room</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>41</td>
<td>1080.634</td>
<td>793.971</td>
<td>123.997</td>
</tr>
<tr>
<td>1</td>
<td>19</td>
<td>851.000</td>
<td>811.720</td>
<td>186.221</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variances</th>
<th>t</th>
<th>DF</th>
<th>P [T]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unequal</td>
<td>1.0264</td>
<td>34.5</td>
<td>0.3119</td>
</tr>
<tr>
<td>Equal</td>
<td>1.0349</td>
<td>58.0</td>
<td>0.3050</td>
</tr>
</tbody>
</table>

For HO: Variances are equal, $F' = 1.05$  DF = (18,40)

Prob $F' = 0.8725$
Table 13: t-Test for Amount of Time with Print Material and Rooming Arrangement.

<table>
<thead>
<tr>
<th>Room</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>22</td>
<td>100.000</td>
<td>85.607</td>
<td>18.251</td>
</tr>
<tr>
<td>1</td>
<td>15</td>
<td>245.600</td>
<td>406.093</td>
<td>104.853</td>
</tr>
</tbody>
</table>

Variance  t   DF   P [T]
----------  ----  ----  ----
Unequal    -1.3680 14.9  0.1917
Equal      -1.6393 35.0  0.1101

For HO: Variances are equal, F' = 22.50  DF = (14,21)

Prob F' = 0.0000
Table 14: t-Test for Time Spent Listening to Radio/Audiotape and Rooming Arrangement.

<table>
<thead>
<tr>
<th>Room</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>5</td>
<td>442.800</td>
<td>3.83382E+02</td>
<td>1.71454E+02</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>180.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Variance

|        | t   | DF | P | |T| |
|--------|-----|----|---|---|
| Unequal|     |    |   |   |
| Equal  | 0.6258 | 4.0 | 0.5654 |
Table 15: t-Test for Time Spent on Telephone and Rooming Arrangement.

<table>
<thead>
<tr>
<th>Room</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>38</td>
<td>76.526</td>
<td>66.881</td>
<td>10.850</td>
</tr>
<tr>
<td>1</td>
<td>19</td>
<td>76.211</td>
<td>71.793</td>
<td>16.470</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variances</th>
<th>t</th>
<th>DF</th>
<th>P [T]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unequal</td>
<td>0.0160</td>
<td>33.9</td>
<td>0.9873</td>
</tr>
<tr>
<td>Equal</td>
<td>0.0164</td>
<td>55.0</td>
<td>0.9870</td>
</tr>
</tbody>
</table>

For HO: Variances are equal, $F' = 1.15$  DF = (18,37)

Prob $F' = 0.6927$
Table 16: t-Test for Time Spent with Visitors and Rooming Arrangement.

<table>
<thead>
<tr>
<th>Room</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>31</td>
<td>347.742</td>
<td>355.049</td>
<td>63.769</td>
</tr>
<tr>
<td>1</td>
<td>16</td>
<td>325.063</td>
<td>198.076</td>
<td>49.519</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variances</th>
<th>t</th>
<th>DF</th>
<th>P [T]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unequal</td>
<td>0.2809</td>
<td>44.6</td>
<td>0.7801</td>
</tr>
<tr>
<td>Equal</td>
<td>0.2364</td>
<td>45.0</td>
<td>0.8142</td>
</tr>
</tbody>
</table>

For HO: Variances are equal, $F' = 3.21$  DF = (30,15)

Prob $F' = 0.0200$
Table 17: t-Test for Time Spent with Spouse and Rooming Arrangement.

<table>
<thead>
<tr>
<th>Room</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>19</td>
<td>391.579</td>
<td>325.534</td>
<td>74.683</td>
</tr>
<tr>
<td>1</td>
<td>12</td>
<td>930.417</td>
<td>784.626</td>
<td>226.502</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variances</th>
<th>t</th>
<th>DF</th>
<th>P [T]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unequal</td>
<td>-2.2593</td>
<td>13.4</td>
<td>0.0411</td>
</tr>
<tr>
<td>Equal</td>
<td>-2.6711</td>
<td>29.0</td>
<td>0.0123</td>
</tr>
</tbody>
</table>

For HO: Variances are equal, $F' = 5.81$, $DF = (11,18)$

Prob $F'$ = 0.0011
Table 18: Choice and Visitor and Significant Other Presence.

<table>
<thead>
<tr>
<th>Medium</th>
<th>Visitor</th>
<th></th>
<th>Spouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television</td>
<td>37 (38%)</td>
<td></td>
<td>61 (62%)</td>
</tr>
<tr>
<td>Print</td>
<td>4 (36%)</td>
<td></td>
<td>7 (64%)</td>
</tr>
<tr>
<td>Radio</td>
<td>0</td>
<td></td>
<td>2 (100%)</td>
</tr>
</tbody>
</table>
Table 19: Analysis of Variance of Influences Contributing to Total Time the Patients
Spent Media

ANOVA

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sums of Squares</th>
<th>Mean Squares</th>
<th>F</th>
<th>PF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>59</td>
<td>37760256.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td>1</td>
<td>1447358.93</td>
<td>1447358.93</td>
<td>2.99</td>
<td>0.09</td>
</tr>
<tr>
<td>New Mob.</td>
<td>1</td>
<td>92567.08442</td>
<td>92567.08442</td>
<td>0.19</td>
<td>0.66</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>4</td>
<td>3244770.47887</td>
<td>811192.5</td>
<td>1.68</td>
<td>0.17</td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
<td>1815008.73600</td>
<td>1015008.73600</td>
<td>3.75</td>
<td>0.05</td>
</tr>
<tr>
<td>Moodday1</td>
<td>2</td>
<td>363030.07749</td>
<td>181515.03</td>
<td>0.38</td>
<td>0.68</td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>355695.03368</td>
<td>355695.03368</td>
<td>0.74</td>
<td>0.39</td>
</tr>
<tr>
<td>Mood*Gend</td>
<td>2</td>
<td>3623392.15</td>
<td>1811696.1</td>
<td>3.75</td>
<td>0.03</td>
</tr>
<tr>
<td>Error</td>
<td>47</td>
<td>22718389.7647</td>
<td>483369.97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>