ORGANIZATIONAL IDENTITY, HEALTH IDENTITY, AND MOTIVATION: A SYMBOLIC INTERACTIONIST APPROACH TO THE UNDERSTANDING OF HEALTH BEHAVIORS IN WORK SETTINGS

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Identity is an important determinant of behavior. This paper proposed an identity model as one way of understanding those factors related to the perceived probability or willingness of a worker to participate in health promotion programming at the worksite.

Part of a larger study on employee wellness, this study took place in the municipal complex of a small city in the southeastern United States. A stratified cross sectional sample of 150 employees was selected utilizing a systematic random sampling methodology. Structured interviews were conducted with 129 participants resulting in a response rate of 92% after adjusting for those people no longer employed by the city.

In order to test the identity model developed by this author, descriptive analysis, simple multiple regression analysis and path analysis were utilized. The dependent variable, perceived willingness to participate in health promotion programming, was examined in relationship to commitment to one's health identity, commitment to one's

organizational identity, tendency to comply with health initiatives, and the forms of supervisory power utilized to enact employee compliance.

The descriptive analysis revealed that subjective health status is moderately and positively associated with commitment to one's health identity, that individuals can be strongly committed to a negative/destructive health identity, and that both the family and physician play important roles as health advice givers.

The path analysis revealed that commitment to one's organizational identity, commitment to one's health identity, and tendency to comply with health initiatives are significantly and positively associated with willingness to participate in health promotion programming, accounting for 25% of the variance in the dependent variable. In contrast, the forms of supervisory power were not shown to be related to the dependent variable. In conclusion, the identity model appears to be a useful tool for the understanding of health attitudes and behaviors within a work setting.

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CHAPTER I

INTRODUCTION

The advent of organizational interest in promoting the health of employees provides sociological practitioners with an opportunity to utilize theoretical, analytical and interventionist skills in an emergent job market. Health promotion or wellness programs are oriented toward the development of a lifestyle that facilitates human excellence, high levels of energy, and optimal functioning (Dunn, 1961). Wellness is presented as a process of achieving one's potential, rather than as a state of health, with the primary responsibility for the wellness process residing in the individual (Patton, Corry, Gettman, & Graf, 1986).

Wellness programming is centered around health promotion rather than disease prevention. Dunn (1961) attempted to devise a new way of thinking about health by differentiating the disease process, which is dominated by medical practitioners, from the process of health promotion, which is dominated by social scientists, educators, and others. Health promotion programs at the work-site include weight reduction programs, smoke reduction programs, aerobic

exercise classes, blood pressure monitoring, general health education, nutrition programs, stress management programs, and so on.

Employers have become increasingly involved in health promotion activities. Studies have shown that some health promotion activities are offered by more than 20% of moderately sized companies (50-100 employees) (Davis, Rosenberg, Iverson, Vernon & Bauer, 1984; Fielding & Breslow, 1983). In one study, 78% of all companies in California were reported to have at least one health promotion program (Fielding & Breslow, 1983). Participation rates of programs range from 20 to 90% for on-site programs (Fielding, 1984; Kiefhaber & Goldbeck, 1986).

Escalating health care costs and employee absenteeism are two motivating forces behind organizational involvement in health programming. Each smoker costs employers an estimated $624-$4611 annually more than non-smokers in increased medical costs, absenteeism, replacement costs, maintenance, property damage, other insurance increases, and lower productivity (Kristein, 1980; Weis, 1981). Cardiovascular disease and hypertension result in an estimated 26 million work days lost annually (LaRosa, 1983). Finally, excessive drinking has resulted in an estimated 19 billion work days lost (Cunningham, 1982).

Health promotion programs have been shown to be effective. A few scientific evaluations have emerged from

work-site wellness studies. The Johnson and Johnson Live for Life Program, which includes annual blood screenings, nutrition programs, weight control, stress management, and blood pressure programs, has reported a 15% decrease in smoking for experimental sites compared to the control group, a 1% decrease in the percentage of the experimental population above the ideal weight compared to a 6% increase in the control group, a 32% reduction in the percentage of the experimental group with elevated blood pressure compared to a 9% decrease in the control group, as well as a 9% decrease in self-reported sick days in the experimental groups and a 14% increase within the control group (Kiefhaber & Goldbeck, 1986).

Evaluation of Control Data's Staywell program has confirmed health care benefit payment reductions within the Staywell Program (Naditch, 1984). Compared to non-smokers and those who quit smoking more than five years ago, smokers and those who quit less than five years ago claimed 25% more benefit payments and utilized two times the number of hospital days. In addition, the health claims of sedentary individuals as compared to those of active individuals averaged $436.92 with .57 hospital days and $321.01 with .31 hospital days, respectively.

Researchers have investigated individual health behaviors primarily outside of the organizational environment. Wellness behavior, or health protective

behavior, has been defined as "any behavior performed by a person regardless of his or her perceived health status, in order to protect, promote or maintain his or her health, whether or not such behavior is objectively effective toward that end" (Kasl & Cobb, 1966, p. 246). Harris and Guten's (1979) exploratory study of the health protective behaviors of 842 adults from a randomly chosen sample derived from a stratified-cluster sampling design of households in the Greater Cleveland Area resulted in the following conclusions: (a) Almost everyone performs some regular behaviors for the purpose of protecting his or her health, (b) protective behaviors concerning nutrition and eating habits are the most important and common behaviors reported, (c) the empirically derived dimensions of health behavior include personal health practices, safety practices, preventative health care, environmental hazard avoidance, and harmful substance avoidance, and (d) health condition is not substantially associated with protective health behaviors.

Attempts at understanding the impetus behind preventative health behaviors have not been very productive. One approach to the understanding of health behaviors is represented by Allport's (1935) classic model which linked information and attitudes with behavior. The model proposes that the acquisition of information about a behavior leads to the formation of a predisposition/attitude to respond

which leads to behavior which reflects that attitude. For example, learning that smoking is causally linked to lung cancer should result in a cessation of smoking. Bettinghaus's (1986) review of the literature on the utility of Allport's theory concluded that knowledge of attitudes is of limited use in predicting behavioral outcomes. Therefore, health promotion programs which focus on knowledge as a motivator of change are destined to have little impact.

The health belief model (HBM) is another approach to the understanding of the practice of preventative health behaviors. Initially formulated by Rosenstock and his associates (Rosenstock, 1966, 1969, 1974), and revised by Becker and his associates (Becker, 1974; Becker, Drachman, & Kirscht, 1974; Becker, Haefner, Kasl, Kirscht, Maiman, & Rosenstock, 1977a; Becker & Maiman, 1975; Becker, Maiman Kirscht, Haefner, & Drachman, 1977b), the health belief model currently proposes that health preventative behaviors are associated with the following factors: (a) a general tendency to engage in health behaviors, (b) the level of susceptibility of the particular illness or condition, (c) the level of severity of the consequences of the disease upon biological or social functioning, (d) the potential benefit of the health directives in preventing or reducing susceptibility and/or illness, and (e) the existence of physical, psychological or social barriers which might

affect initiating and/or continuing the health directive. Studies have demonstrated the utility of knowing the health beliefs of clients when attempting to predict health behaviors, especially compliance (Haynes, Taylor, & Sackett, 1981). In addition, health beliefs have been shown to be moderately associated with the adoption and maintenance of physical activity (Sallis, Haskell, Fortmann, Vranizan, Taylor, & Solomon, 1986) and the practice of protective health behaviors (Harris & Guten, 1979).

The HBM has provided some insight into the nature of health behaviors and beliefs. However, a number of problems emerge when attempting to use the model for prediction within the organizational setting. First, the HBM has been primarily used with a clinic population and not within an organizational setting. Second, the HBM does not account for situational effects. Third, prospective studies have generally not found correlations between health beliefs at the beginning of a course of therapy and subsequent compliance (Becker et al., 1977b; Taylor, 1979). The lack of temporal precedence results in a failure to establish health beliefs as a causal factor in health behavior. Rather, the literature suggests that health beliefs develop concurrently with experience (Taylor, 1979). If this is indeed true, then attempts to change health behaviors by modifying beliefs should not be successful.

Fourth, although many studies have shown health beliefs to be associated with specific health behaviors such as compliance, a number of studies have demonstrated no relationship between beliefs and compliance (Haynes, Taylor, & Sackett, 1979). According to Langlie (1977), the proportion of the variance in preventative health behaviors accounted for by HBM is generally small. Finally, the HBM has not overcome the difficulties encountered by Allport's (1935) theory in its attempts to predict behavioral outcomes from knowledge of attitudes. Although the HBM has been shown to aid in the prediction of health behaviors, the stated limitations curtail its usefulness.

The problems posed by the existing models are obstacles to their application in the organizational setting for the purpose of predicting health behaviors. Coherent introduction, testing, and revision of health promotion ideas are prohibited by the lack of a theoretical framework within the wellness field. The philosophical underpinnings of wellness programs, which emphasize individual action and self-responsibility, implicate the utilization of a micro-level perspective. Within this study, therefore, Mead's (1934) symbolic interactionist perspective, as expanded by Turner (1987) into a general interactionist model of motivation, is proposed as one way of synthesizing health promotion activities at the work-site.

The focus of this study is to assess those factors related to the perceived probability/willingness of a worker to participate in a health promotion program offered by his or her work organization. The uniqueness of this study resides in its attempts to synthesize the influence of both organizational identity and health identity upon one's decision to participate or not participate in health promotion programs.

CHAPTER II

LITERATURE REVIEW

The primary issues in the analysis of the relationship between the work-site and health from an interactionist perspective will be provided within this section. The chapter presents, first, a general interactionist model of motivation followed by a development of the constructs of organizational identity and health identity. Finally, guiding questions and hypotheses will be stated.

An Interactionist Model of Motivation

The influence of the self-concept upon actual conduct is a major concern of social psychologists. Sociological theories of socialization, including symbolic interactionist theories, have contributed to the development of a concept of humans as normatively constrained creatures. According to Gecas (1986), a proper conception of socialization must also include the creativity and the uniqueness of the individual. Motivation theory provides one avenue for the development of a concept of the individual as a unique acting participant in social conduct.

The symbolic interactionist school has been one route through which motivation has entered mainstream sociological

thought. Motivated behavior becomes distinguishable from nonmotivated behavior by its reference to specific ends, and by being "more or less subject to conscious control through choice among alternative ends and means" (Foote, 1951, p. 15). Digestion is an example of non-motivated behavior; eating, in contrast, is motivated behavior.

Interactionist theory provides a number of motivating forces. A model proposed by Jonathan Turner (1987), in his review of motivation theories within interactionist sociology, is provided below (see Figure 1). Within this model, Mead's social behaviorism is expanded to a general interactionist view of motivation. The core of Turner's model is the relationship between three factors which affect one's behavior or presentation of self within a situation: (a) capacity for reflective thought, (b) construction of a substantive self-concept, and (c) construction of definitions and orientations to situations. Each of these concepts will be discussed below.

Capacity for Reflective Thought

One motivating force within the interactionist model, the capacity for reflective thought, is determined by the ability to reflexively think. Reflexive thinking entails the ability of the self to be viewed as both the subject of and the object of action. As such, one can observe one's self, one can engage in an assessment of one's actions in

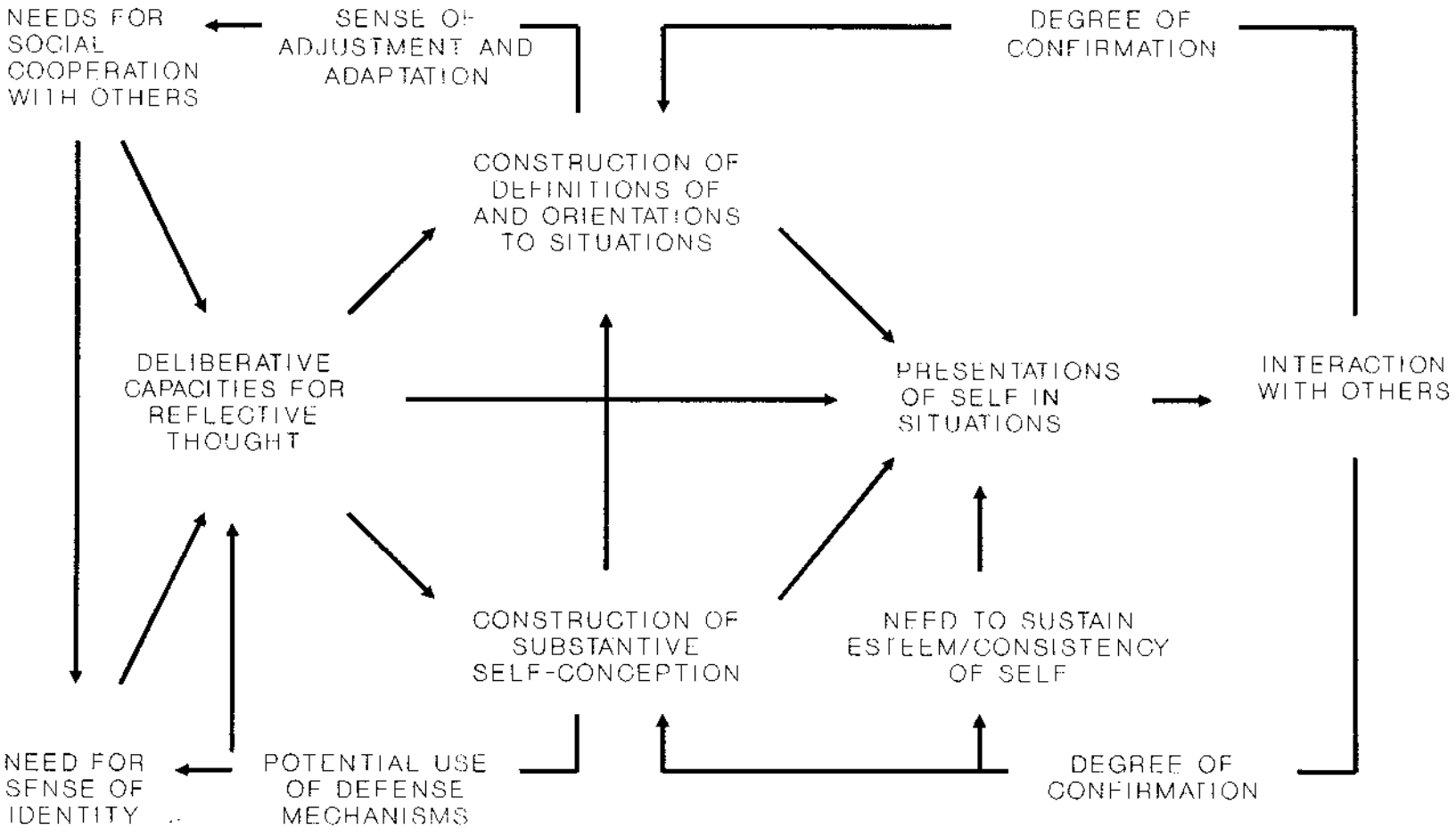


Figure 1. An interactionist model of motivation (Turner, 1987).

relationship to the actions of others, and one can form a response to the action of others (Mead, 1934). Together, these processes comprise the self-directed act.

Reflexive thinking is represented by the dialogue which takes place between the two phases of the self. One phase is termed the "I"; the other is termed the "me" (Mead, 1934). The "I" is not directly given in experience. Rather, the "I" exists in the present and is denoted by the response of an individual to a social situation. The response of the "I" is peculiar to an individual; thus, the "I" becomes an individual's basis for identification. However, the actions of the "I" can only be perceived by the individual in reflection, after the actions have been incorporated into the "me." The "me" is the product which evolves from the taking of the attitudes of those groups within which the individual is acting. Thus, the "me" can be conceived of as all possible responses of the group to the individual's action. Throughout the processes of perception and response, the "I" dominates. However, in the process of decision-making or choosing the appropriate response, the "me" dominates. Social action emerges as a result of the internal conversation between the "I" and the "me," with one calling out the other.

A synthesis of the definition of motivated behavior with that of reflexivity leads to the conclusion that one's capacity for reflexive thought positively influences one's

participation in behavior. In other words, if one can not think reflexively, one can not consciously plan a means to achieve an end; planning a means to achieve an end is one way motivation may be understood.

The Development of a Substantive Self-Concept

One's substantive self-concept affects behavior. According to Turner (1987), self-concepts are comprised of "self referencing attitudes, dispositions, feelings and definitions and meanings about themselves as objects in situations" (p. 17). Turner's use of substantive self-concept is equivalent to Gecas's (1982) use of identity.

In order to define identity clearly, self-concept must first be differentiated from self. Many different words have been used to denote the self (Kuhn & McPartland, 1954). Gecas's (1982) definition of the self as a process of reflexive thinking and the self-concept as the product of reflexive thinking will be utilized within this study.

Self-concept emerges through one's association with the attitude of others within one's environment. According to Mead (1934), "attitude" refers to the "beginning of acts". Secord and Backman (1964), expanded upon Mead's definition and proposed that the attitude refers to "certain regularities of an individual's feelings, thoughts and predispositions to act toward some aspect of his environment" (p. 97). As such, attitudes contain emotional,

cognitive and behavioral components. For example, one's attitude toward health is composed of one's enjoyment of healthful activities, one's thoughts about health as a means of achieving some goal, and one's tendency to behave in healthful ways, respectively.

Role playing results in the development of a self-concept. A role is like a script in that it indicates behaviors that are appropriate for the individual. When one role-plays, one places one's self in the shoes of the person with whom one is interacting. Through this process, one can view one's self as another person would view one's self. For example, if an employee is to make a decision, he or she may play the role of the boss in deciding which decision to make. In this manner, the employee may avoid potential conflict with the boss. The ability to view the attitude of the others within a group or community collectively occurs during the final stage of development. Also known as the game stage, the final stage of development is characterized by the development of "the generalized other," the perspective or attitude of the general group (Mead 1934). Occurring simultaneously with the emergence of "the generalized other" is the emergence of the self-concept, the product of reflective thinking.

The content of the self-concept is the identity. Interpretation of identity depends upon whether the Chicago School or the Iowa School of symbolic interaction is used.

The focus of the Chicago School of processual interactionists, as represented by Blumer (1969) and others, is the situation within which social identities are established and maintained. The Iowa School of structural interactionists, on the other hand, focuses upon roles. Because of the emphasis upon behaviors within this paper, the Iowa School of structural interactionists approach to identity will be used.

Within the Iowa School, identity is comprised of internalized roles with the close relationship between identities and roles represented by the term "role-identities" (Gecas, 1982). According to McCall and Simmons (1978), a role identity may be defined as "the character and the role that an individual devises for himself as an occupant of a particular social position" (p.65). A role identity is conceived of as an imaginary view of oneself as an occupant of a social position. Role identities are not all equal but differ in prominence and in importance. The self-concept thus becomes a hierarchical arrangement of role-identities (McCall & Simmons, 1978; Stryker, 1968). The organization of role identities as it exists at any one point in time is termed the "ideal self" (McCall, & Simmons, 1978, p. 74). Each identity may also be ranked by salience, the likelihood that an identity will be invoked in a situation (McCall, & Simmons, 1978). More prominent identities within a situation are more likely to affect

behavior. A resultant hierarchy of role identities in terms of salience is termed the "situational self". Thus, the situation one is in or, more specifically, one's perception of a situation, affects behaviors.

The Definition of the Situation

Capacity for reflective thinking and identity provide a basis for the definition of the situation, which in turn influences behavior. W.I. Thomas (1937) expressed the belief that "preliminary to any self-determined act of behavior there is always a stage of examination and deliberation which we may call the definition of the situation" (p. 47). When one defines a situation, one represents the situation to the self symbolically. On the basis of this symbolic representation, a self-directed response can be made. Thus, the subjective rather than the objective factors of a situation are the primary determinants of behavior. One's identity, as the conglomeration of values, roles and behaviors that the actor believes to be authentic, serves as a filter through which selective perception and recall occur. Hence, the definition of the situation is influenced by one's identity. In addition, action outcomes can be derived from an assessment of the definition of the situation.

One component of the definition of the situation important in this study is the theme which emerges within a

situation. A theme is defined as a general pattern of meaning (McHugh, 1968), one of many methods used to create temporal continuity. Temporal continuity is essential to the maintenance of a stable self concept.

Another component of the definition of the situation important within this study is the individual's assessment of the likelihood of behavior. The individual, in the process of decision-making, establishes an understanding of those who have similar perspectives due to their similar location in the social structure (McHugh, 1968). In the process of role-taking, the individual constructs their own likelihood of behaving in a certain way.

Reference Groups and the Multiplicity of Identities

Identities have situational components; situational identities emerge from taking the roles of the others within specific group situations (Hewitt, 1984). One's over-encompassing identity, or biographical identity, can be extracted from similarities between situational identities (Hewitt, 1984). For example, John may be both a manager and a father: two situational identities. John's biographical identity may include the aspect of a caring individual. Although John's biographical identity loses a specific situational context, his identity is based within specific experience. Therefore, if one asks John how he knows that he is a caring individual, the answer will be found within

John's perception of the reactions of others to his actions within specific situations.

Situational identities can be differentiated from biographical identities. Schlenker (1985), in his summary on identity and self-identification, postulated that the situated identity has qualities which differ from the individual's biographical identity. Differences can arise from: (a) one's attempt to fit into a social situation, (b) one's attempt to fabricate information in order to achieve a particular personal goal, and (c) other people's attempts at influencing the behavior of an actor.

Situational identities are based within the reference group. The concept of the reference group was introduced by Hyman in 1942 and subsequently developed by Merton and Kitt in 1950. Reference groups have been defined in two ways. First, the group with which individuals compare themselves is termed the "comparative reference group." In contrast, the "normative reference group" is comprised of people who enforce and create standards of conduct for the individual (Kelley, 1952). Within this paper, the former interpretation of reference groups will be utilized because of an emphasis upon comparative processes. The importance of reference groups is that reference groups "are a major point of 'contact' between the individual and the larger society. It is in relation to such others that identity is defined..." (Hewitt, 1984, p. 130).

The reference group is not identical to the generalized other. Unlike the development of the generalized other, the reference group does not necessitate the ability to take the role of the others within the group (Lauer & Handel, 1977). However, it appears plausible to assume that the individual must internalize the standards of the reference group in order for the reference group's standards to be a basis for self-directed actions.

Reference groups can be either concrete or abstract. Mead (1934) proposed one approach to the understanding of such groups. First, concrete groups are functional units, in terms of which individual members are directly related to one another; organizational groups such as manager and laborer would fall into this category. Second, abstract groups are marginally functional, in terms of which individual members are indirectly related; health groups such as ill and well would fall into this category. Both groups, however, possess specific attitudes which the individual must internalize in order to develop the respective self.

The organizational identity and the health identity are the focus of this paper. The organizational identity is the situational identity which emerges within the work context. Likewise, the situational identity, which is proposed to be formed from one's health-related interactions with health-care personnel, the family, and the peer group, will be

termed the health identity for the purposes of this research.

The Definition of the Problem: A Synthesis of Health Identity and Organizational Identity

The literature on the relationship between identities is sparse. Broadhead (1980), proposed that identities must be articulated. As defined by Broadhead, "articulation attends to resolving the experiential problem of how individuals themselves assemble their multiple identities in terms of relating them to one another, symbolically, as well as relating them to one another in behavior, within situations and across time" (p. 173). The most accepted mode of articulation within the identity literature is that of the hierarchy. Identities may be organized in terms of a hierarchy of prominence (McCall, & Simmons, 1978; Stryker, 1968). As mentioned previously, one's salience hierarchy or situational self is important in predicting behavior when two identities are concurrently invoked. When the potential for incompatible behavior occurs, the importance of the hierarchy of salience increases. The focus of this paper is the articulation of the health and the organizational identities within the work situation.

The articulation of identities affects behaviors through the definition of the situation. Utilizing Turner's (1987) model as a basis, health identity and the

organizational identity affect behavior through the definition of the situation (see Figure 2). The effect is differential in that the mode of articulation will determine the nature of the meaning of the situation for the individual.

The theme of importance within the definition of the health situation at the work-site is the probability of the employee participating in a health promotion program at the work-site. The behavior of importance within this model is participation within work-site health promotion programming. An attempt at a synthesis of these two situational identities within the definition of the situation results in the following identity model (see Figure 3).

Identity-Commitment

Organizational identity and health identity are two identities that the individual may possess. If an individual in the process of decision-making chooses to make decisions from the standpoint of the organization, an organizational identity has emerged. Health identity also emerges in relation to others. In this case, the others are those people who provide the individual with health advice. Physicians, other health care workers, family members, and friends are among those individuals who provide the basis for the formation of the health identity.

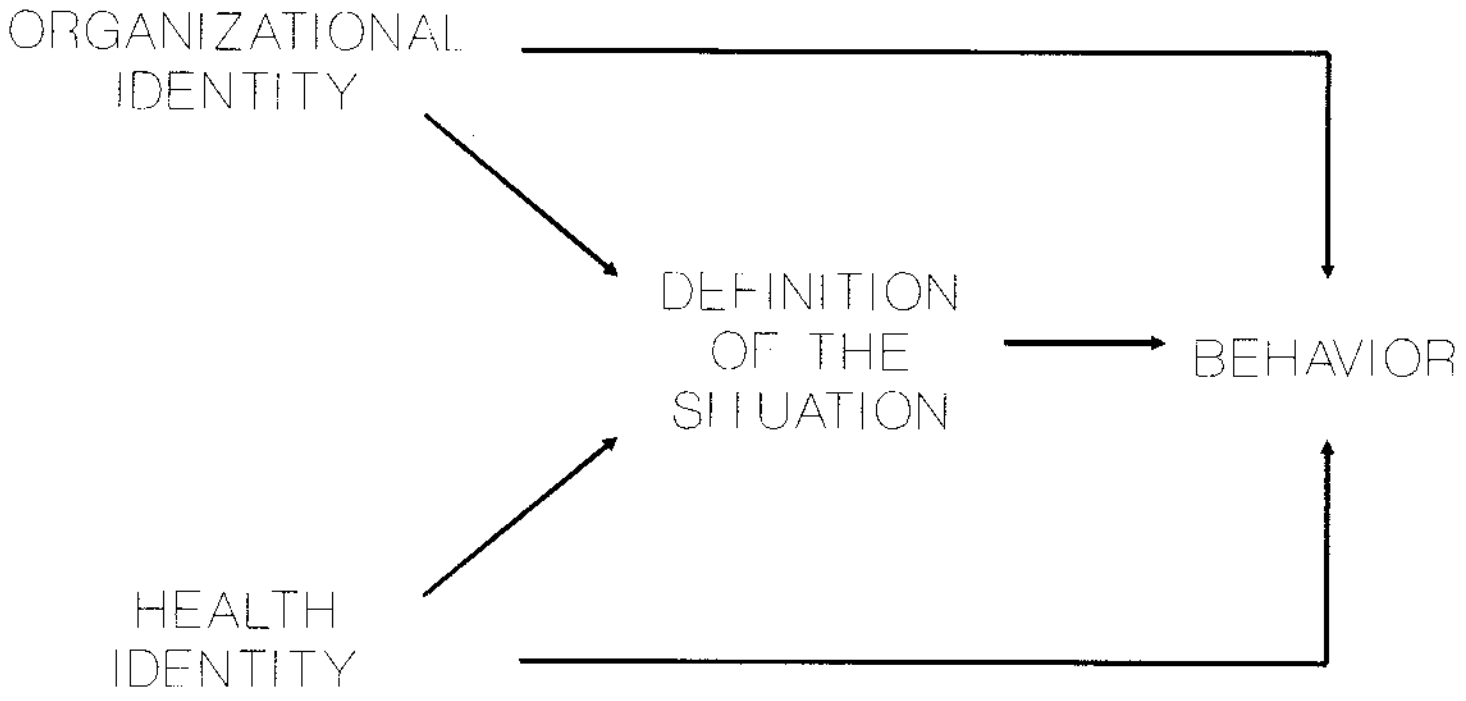


Figure 2. The relationship between organizational identity, health identity, and behavior.

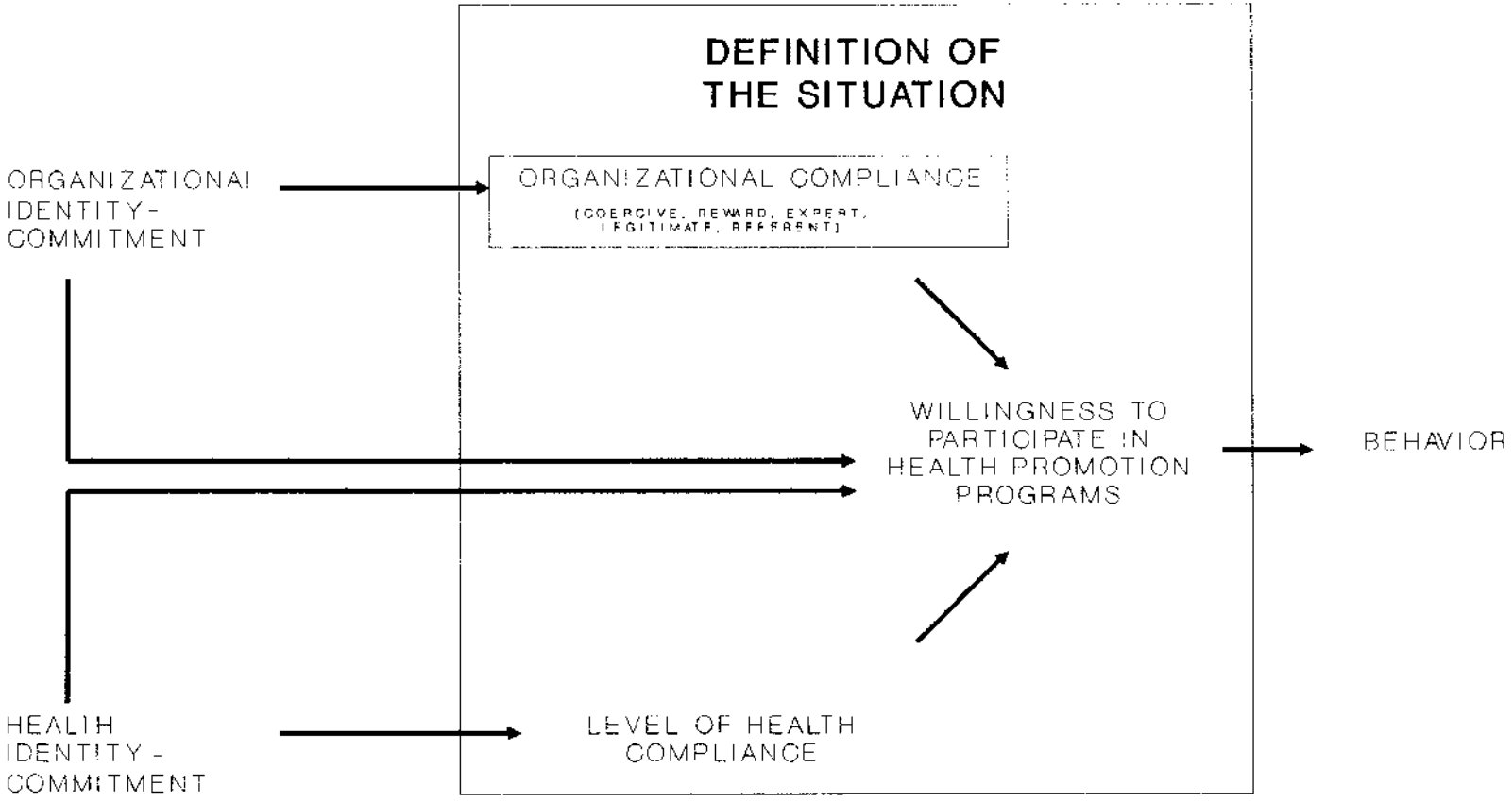


Figure 3. The identity model.

Commitment focuses upon the form of identification. Cheney (in press), in response to Kiesler's proposition that the "degree" of commitment refers to how closely behavior is "tied to self", derived three propositions about commitment. First, commitment has a "binding" nature. Second, commitment includes both private and public behaviors. Finally, a strong positive relationship exists between commitment and incorporation into self.

Commitment and identification are highly interrelated. According to Cheney (in press), "the development of identity is necessary so that the individual can make and hold social commitments" (p. 13). The relationship is a reciprocal one, with identity influencing commitment and commitment influencing identity.

Both organizational commitment and health commitment can be developed from Cheney's (in press) interpretation of commitment. The extent to which an organizational identity is incorporated into the self determines the extent to which behaviors are congruent with the stance of the organization. Likewise, the extent to which a health identity is incorporated into the self determines the extent to which behaviors emerge that are congruent with significant others in the individual's health arena. Within the situation under analysis, the stance of the organization and the stance of significant others within the individual's health arena can be defined as supportive of individual

participation in health promotion programming. The emphasis thus shifts from a focus on the individual's identity, to those situational factors which influence compliance, to recommendations to voluntarily participate in health promotion programming.

The Definition of the Situation

One theme of importance to the definition of the work situation may be an employee's perception of the nature of the supervisory power base utilized to enact compliance. According to Etzioni (1975), compliance "refers both to a relation in which the actor behaves in accordance with a directive supportive by another actor's power, and to the orientation of the subordinated actor to the power applied" (p. 3). A directive is supported when following the directive is rewarding and not following the directive leads to deprivation.

A socio-psychologic approach to power within organizations is more appropriate within this micro-level approach to health promotion programming. French and Raven (1960) provide a socio-psychological basis for the understanding of power based upon leadership factors as sources of organizational behavior. According to French and Raven (1960), coercive power, reward power, expert power, legitimate power, and referent power are the five bases of organizational influence. Coercive power is based upon the

expectation of punishment for failure to conform, reward power upon the expectation of benefits for conforming, expert power is based upon perceived knowledge of the group, and legitimate power upon the belief that an individual has the legitimate right to exercise power and that the individual who is being influenced by the power has an obligation to accept the influence. Finally, referent power is based upon the attractiveness of an individual/social situation and subsequent identification with the individual.

The definition of the health situation is slightly different than the definition of the work situation. Within the organizational context, compliance is assumed. If the individual is non-compliant, coercive means to elicit compliance will be used by those in power. Eventually, these coercive means will render an individual either compliant, at least in appearance, or unemployed by the organization. Hence, compliance is the end state. Within the health situation, however, compliance is not always the end state as indicated within the definition of compliance. Health compliance has been defined as " the extent [emphasis added] to which a person's behavior (in terms of taking medications, following diets or executing lifestyle changes) coincides with medical or health advice" (Haynes, Taylor, & Sackett, 1979, p. 1-2). Compliance to medical regimens is a significant problem within the health-care system. According to Sackett and Snow's (1979) review of the

literature pertaining to the magnitude of noncompliance, three conclusions may be drawn. First, patients keep 75% of the appointments they make and only 50% of the appointments made for them. Second, compliance to short-term regimens declines rapidly. Finally, only approximately 50% of patients on long-term regimens are compliant.

Social relationships may influence compliance with medical regimens or motivate people to engage in healthful behaviors (Berkman, 1984; Caplan, Harrison, Wellons, & French, 1980; Langlie, 1977; Suchman, 1964; Umberson, 1987). Umberson's (1987) study of family ties and mortality supported the hypotheses that social control is a mechanism through which family relationships affect behavior outcomes. Social control may influence behavior either through the internalization of norms for healthful behavior (Hirschi, 1969; Nye, 1958; Parsons, 1951) or through the enactment of sanctions for unhealthful behavior (Nye, 1958; Parsons, 1951).

Whereas organizations may function utilizing sanctions or coercive influences, coercion is not typically found within the health care setting. Family members may use coercive means (e.g., threatening to leave a spouse) if health initiatives are not followed through. In addition, physicians use coercive means (e.g., you'll die if you don't stop smoking) to elicit compliance from a patient. Except in extreme cases, however, the individual can remain within

the system of the person who proposes health advice without any detrimental consequences.

A review of the compliance literature has revealed a number of areas lacking in adequate research. First, compliance literature has focused upon compliance to medical regimens proposed by doctors. Compliance to the health advice of other social groupings such as family, friends, and so forth is virtually ignored. Second, the populations studied are traditionally people who are undergoing health problems. Thus, we know nothing about the compliance patterns of generally healthy individuals.

The level of compliance enacted by those social groupings whose health advice is most important to the individual may be important to participation in health promotion programming. Within the interactionist model of motivation, the importance of the health advice of these social groupings to the individual's health behavior is worthy of investigation.

Questions and Hypotheses

A study in the effects of identity upon behavior is in any sense exploratory. Some questions have been posed to guide a descriptive overview of the concepts and their relationships. First, an exploratory study into identity should first come to an understanding of the nature of health identity and organizational identity. Second, it

seems plausible that subjective health status would influence identity-commitment to one's health. However, McCall and Simmons (1978) postulate that identity is the imaginary view of oneself, which tends to indicate that even those people with a negative health status would have a strong commitment to a positive identity. Third, the relationship between commitment and identity is worthy of investigation. Can individuals have a strong commitment to a negative or destructive health identity? Fourth, the nature of the normative form of supervisory power within the organization would logically tend to influence behavior. Thus, it becomes important to know the form of power which predominates within the organization under study. Fifth, since little if any research has been conducted surrounding the importance of the health advice of various social groups, those social groups whose health advice is important to the individual should be identified. Finally, level of compliance to the health advice of that social group whose health advice is most important to the individual should be identified.

In addition to the guiding questions, a number of hypotheses can be derived from the model presented earlier in Figure 3. First, as organizational identity-commitment increases, the probability of participating in the health promotion program should increase. Second, as health identity-commitment increases, the probability of

participating in the health promotion program should increase. Third, as the perceived form of supervisory power within the work organization moves from a coercive to a referent basis (an indication of an increase in internalization of supervisory power), the probability of participating in a health promotion program should increase. Fourth, for that social group whose health advice is ranked as most important, as compliance to that social group's health advice increases, participation in the health promotion program should also increase. Fifth, those people with a higher commitment to their health identity should have a higher compliance to health directives and should have a higher probability of participating in the health promotion program. Sixth, within categories of supervisory power, the relationship between organizational identity-commitment and participation in health promotion programming should become stronger as one moves from those influenced by a coercive power base to those influenced by a referent power base. Seventh, among those people who rank health identity as more important, one should see a stronger relationship between health compliance and participation in health promotion programming than between supervisory power and participation in health promotion programming. Eighth, among those people who rank organizational identity as more important than health identity, one should see a stronger relationship between supervisory power and participation in

health promotion programming than between health compliance and participation in health promotion programming.

CHAPTER III

RESEARCH METHODOLOGY

The function of this study is to provide a theoretical basis for the understanding of health activities of employees in an organizational setting. The data was collected as part of a larger study on employee wellness which took place in the municipal complex of a small city in the southeastern United States.

Sampling

A stratified cross-sectional sample of 150 employees was selected utilizing a systematic random sampling methodology from the personnel office's roster of employees. The roster of employees is organized by department. A stratified sample was chosen to ensure that each department was represented. The total population was 616 employees. Of the 150 employees which were selected for participation, 10 people had been terminated or had retired prior to being contacted, 2 interviews were unusable, 2 people refused to participate after being approached, and 7 people were unable to be interviewed due to schedule conflicts, resulting in a response rate of 92% (after adjusting for those people who were no longer employed by the city).

Collection of Information

The information was collected utilizing a structured personal interview format. The interview was supplemented by response cards which were placed before the respondent, where appropriate. All interviews were conducted by the author.

Maximum participation was achieved utilizing the following procedure. First, the need for the survey was explained at the Mayor's staff meeting in order to solicit the support of department heads in encouraging those department members selected to participate. Second, letters of support for the project were sent to the department heads from the City Council. Third, a letter was sent directly to employees of the city explaining the reason for the survey and the need for their participation. Fourth, an incentive in the form of an hour of work time to complete the survey was provided.

Each employee selected to participate in the survey was informed of his or her selection and asked to participate. Interviews took place by appointment in either the author's office or the employee's office. Health insurance claims information and employee absenteeism rates were collected from existing files of information within the health insurance office and the personnel office, respectively.

Protection of Employees Rights

Employees were informed both verbally and in writing about their rights and about the information that was being collected (see Appendix A). The rights of the employees were protected through voluntary participation in the survey as a whole and through the right to refuse to answer any particular question. In addition, the employee's names were never placed on the surveys, all identifying information was removed, and information was only reported in group form such that no one individual could be identified. Finally, raw data was kept in a secure place not accessible to anyone but the author.

Operationalization of Variables

Each of the variables presented in Figure 3, page 23, was operationalized so that statistical analysis of the model could be conducted. The variables, categorized as either dependent variables or independent variables, are presented below.

Dependent Variable

Willingness to participate in the health promotion program. Numerous efforts have been made to predict compliance behaviors (Haynes, Taylor, & Sackett, 1979). However, merely asking the patient to estimate his or her probability of compliance has been shown to explain 57% of the variance in compliance (Taylor, 1979). Therefore,

respondents were asked to estimate the probability of their participating in the following health promotion programs: stress management programs, smoke reduction programs, weight reduction programs, alcohol reduction programs, blood pressure monitoring programs, aerobic exercise programs, nutrition classes, first aid classes, on-site nursing services, and personal growth and development programs. Response categories were "probably would not participate," and "probably would participate," coded as 0 and 1, respectively. A score which indicated the number of programs the individual was willing to participate in was created by summing the scores across categories. Another score indicating program eligibility was created by subtracting, from the total number of programs (10 programs), a 1 for each program from which the individual was logically exempt. Exemption from specific programs was determined if the employee was a non-smoker, was not overweight, did not drink, monitored his or her own blood pressure, already participated in aerobic exercise, already had training in first-aid classes, or was already seeing a mental health professional. The final score was derived by dividing the number of programs the individual was willing to participate in by the number of programs that the individual was eligible for. The range of the final scores was between 0 and 1. A zero indicated that the individual would not participate in any programs for which he or she

was eligible. A 1 (one) indicated that the individual was willing to participate in all programs for which he or she was eligible.

Independent Variables

Identity. Both health identity and organizational identity were assessed using an adapted form of the Twenty Statements Test (TST) (Kuhn & McPartland, 1954). The TST is an unstructured questionnaire in which respondents answer the question "Who am I?" Although the test has unknown reliability and validity (Wylie, 1974), it is a generally accepted method utilized to gain knowledge of the content of the self-concept or identity. To assess situational identities, the TST was shortened to ten statements and the general "I am ..." question was adapted to "As an employee of _____, who am I?" and "Health-wise, who am I?," respectively. Each response on the adapted TST was pre-empted by "I am...." The responses given were content analyzed into constructive, destructive and neutral categories scored with either a +1, -1 or a 0, respectively. The response scores were then summed to a total score which indicated a constructive self tendency with a positive total score, a destructive self tendency with a negative total score, and a neutral tendency with a total score of zero.

In order to gain an insight into the relative importance of each of these identities, health identity and

organizational identity were ranked. Respondents were asked the following question: "Is your health or being an employee of _____ more important to you?" By knowing the relative importance of each of the two identities, it was possible to investigate the nature of the relationship between the identities upon the probability of participating in the health promotion program.

Identity-Commitment. A measure of identity-commitment was developed based upon the identity construct. Each respondent had a possibility of completing up to 10 "I am..." statements for both health identity and organizational identity. The number of statements completed for each identity was used as an indicator of how extensively the identity was incorporated into the self and was called commitment. The identity-commitment score was derived by multiplying the identity score by the commitment score. For example, if John Doe completed one organizational identity statement with the response "I am bored," the identity score would be a -1 since John's answer is indicative of a destructive/negative organizational identity; the commitment score would be a 1 since only one "I am..." statement was completed. Thus, the identity commitment score would be a -1 (identity x commitment). The range of the index is between -100 and 100 for both health identity-commitment and organizational identity-commitment.

The newly constructed identity-commitment index was validated in two ways. First, face validity analysis revealed that the index maintains its logical integrity. For example, a person who has completed 4 identity statements (commitment score = 4) could have an identity score ranging from -4 to +4 depending on the number of constructive versus destructive statements reported. The identity-commitment score would range from -16 to +16. A person who has completed 4 identity statements but has 3 constructive statements and one destructive statement (identity score = 2) would have an identity-commitment score of +8. A person who has completed 4 identity statements all constructively (identity score = +4) would have an identity commitment score of +16. An identity-commitment score of +16 signifies an identity-commitment which is stronger and more constructive than an identity-commitment score of +8. Therefore, the ordering of identity-commitment scores has logical meaning which preserves and expands the information derived from the identity scores and the commitment scores alone.

Second, the convergent validity of the identity-commitment scale was assessed with a shortened version of Jackson's (1981) index of commitment to role identities. Jackson based her 23-question index upon Stryker's (1968, 1977) belief that the power of an identity to influence behavior (identity salience) is determined by commitment to

an identity. The strength of the affective response to an identity is signified by commitment. Salience, however, refers to the probability of a behavioral response.

The index statements tap different behaviors, which are indicative of commitment if elicited by the respondent. Discriminate validity was assessed by Jackson in relationship to both self-esteem as measured by Rosenberg's (1965) Self-Esteem Scale and social desirability as measured by Crowne and Marlowe's (1964) Social Desirability Scale. For those identities ranked as most important (first-ranked identities), commitment was slightly correlated with self-esteem, Pearson's $r=.14$, $p < .05$, and uncorrelated with social desirability, $r=.10$, ns. For those identities ranked as least important (seventh-ranked identities), commitment was uncorrelated with both self-esteem, $r=.01$, ns., and social desirability, $r=.14$, ns. In addition, reliability coefficients for most important and least important identities were .74 and .85, respectively, as measured by Kuder-Richardson 20 coefficients.

Construct validity was assessed by rating each identity's importance (on a scale of 1 to 100) with the score from the commitment index. Between first-ranked identities and seventh-ranked identities, rankings were significantly different, paired $t=35.22$, $p < .001$. Between first-ranked identities and fourth-ranked identities, scores were also significantly different, paired $t=6.66$, $p < .001$.

Finally, between fourth-ranked identities and seventh-ranked identities, scores were significantly different, paired $t=10.82$, $p < .001$.

The questionnaire was shortened from a 23-question format to an 11 question format. Nine questions which significantly differentiated first-ranked identities from fourth ranked identities and two questions which significantly differentiated fourth ranked from seventh ranked identities were included in the shortened index. The nine original statements underwent modification as a result of the pre-testing. The original questionnaire had been utilized on a college sample. During the pre-test, a number of the questions were not comprehensible to individuals with a limited education. Therefore the questions were simplified through the omission of double negatives and the use of simpler vocabulary. The following statements comprised the final index:

1. I try to think about problems in my life by taking into account how they affect my (health/job).

2. Compared to other concerns, I worry more about how good my (health/work) is.

3. If I had to give something up, (being an employee of _____/ my health) is the last thing I would give up.

4. I feel bad when I am not being a (good worker/healthy person).

5. I organize my day around my (job/health).

6. (Being an employee of _____/my health) is of little value to me.

7. I would feel a great sense of loss if suddenly I was unable to (work for _____/be healthy).

8. I am strongly committed to being (a good employee/a healthy person).

9. If people could know only one thing about me, I would want them to know that I am (an employee of _____/a healthy person).

10. During the past week, I have made 10 or more decisions in which (being an employee of _____/my health) has influenced my decision.

11. I devote very little time to my (job at _____/health).

The response categories were "mostly agree/mostly disagree." Answers indicative of commitment were coded as a 1. Likewise, answers which are non-committal are coded as a zero. The index score, the sum total of responses, has a range of 0-11. Reliability as measured by Cronbach's alpha was moderate for the organizational commitment index (alpha = .45) and strong for the health identity commitment index (alpha = .73).

The convergent validity analysis revealed that the health identity-commitment index was significantly and moderately associated to Jackson's health commitment index (Pearson's r = .31; p LE .001). However, organizational identity-commitment index was not significantly associated with Jackson's organizational commitment index (r = .14; p = ns). The differing conceptual bases of the two measures could be one reason why the two measures did not exhibit a significant relationship. Jackson bases her idea of

identity, in part, upon McCall and Simmons (1978) definition of identities as the "imaginative view" of oneself that indicates how one would ideally like to be in a given status. However, the belief that one can be committed to a destructive and not ideal conceptualization of identity is represented by the range of identity-commitment scores indicating both destructive and constructive tendencies.

Work compliance. An adaptation of Bachman's (1968) measure of the five different power bases used to enact compliance was used to measure compliance in this study. French and Raven's (1959) five bases of social power form the basis for this scale. In the measure's original form, five statements are given which the respondent must rank according to the importance to the respondent of reasons for doing things their supervisor suggests or wants them to do. In an effort to make this origional scale easier to comprehend, the language was simplified in the five statements and the response categories were changed to a 6-item Thurstone-type scale ranging from extremely important to not at all important. The response categories were coded from 5-0 with a score of 5 indicating that a particular form of power has a strong influence upon the respondent. The five statements adapted for this study are listed below:

1. I respect my supervisor and want him/her to respect me. (A measure of referent power.)

2. My supervisor has a right to expect my cooperation since he/she is my supervisor. (A measure of legitimate power.)

3. My supervisor is good at what he or she does. (A measure of expert power.)

4. My supervisor rewards those who cooperate. (A measure of reward power.)

5. My supervisor makes things difficult for those who do not cooperate. (A measure of coercive power.)

Bachman (1968) assessed the validity of the supervisory power scale through a comparison with other studies of the ranking of each power base with respect to job satisfaction. Price (1972), in his review of measure based upon French and Raven's typology, stated that Bachman's measure appears to be adequately valid although none of the measures based upon French and Raven's typology has been assessed for reliability.

Health compliance. In order to gain an insight into the importance of various groups for health compliance, respondents were asked to rank the importance of the health advice from family members, friends, doctors and health care workers other than doctors. The respondents were then asked to make an assessment of how often they listen to the health advice of the most important ranked group. The response categories were never, some of the time, most of the time, and all of the time coded as a 1, 2, 3, and 4, respectively.

Statistical Analysis

Coding of the questionnaire was performed by the author with assistance provided by an undergraduate student assistant trained in research methodology and in the process of coding this specific questionnaire. All open-ended items were coded by the author. Data entry was provided by the computer department of the University within which the study was housed. Statistical analysis was performed utilizing the SPSSX statistical package. Statistical analysis primarily included the utilization of descriptive statistics, multiple regression, and path analysis. Even though all of the variables were not interval level (especially health compliance), path analysis was utilized for three reasons. First, residual analysis of the variables included within the model revealed that the variables did not significantly violate standards of normality, linearity, or equality of variance established for the use of path analytic techniques. Second, Bollen and Barb (1981), have demonstrated that the differences in correlation coefficients for continuous variables and categorized variables are small if the variables are collapsed into more than two categories; all the variables in the identity model had four or more categories. Finally, the advantage of treating the variables at an interval level was deemed to be worth the possible error in measurement which might occur. According to Labovitz (1970), these

advantages include (a) the use of more powerful, sensitive, better developed and interpretable statistics with known sampling error, (b) the retention of knowledge about the data characteristics, and (c) the increased ability to manipulate the statistics.

CHAPTER IV

RESULTS

Within this section, the results from the statistical analysis will be presented. First, a descriptive overview of the sample will be provided. Second, the variables important in the analysis of the identity model will be described. Third, the answers to the guiding questions posed in Chapter 2 will be tentatively presented. The answer to each guiding question is prefaced by a subheading. Finally, the hypotheses will be investigated through the use of multiple regression and path analysis presented in the section entitled "A Path Analytic Model."

The Sample

One hundred twenty-nine individuals participated in the survey. Approximately three quarters (77.5%) of the sample were men. The racial distribution included 74.4% white, 23.3% black and 2.4% other. In reference to marital status, 67.4% of the sample were married, 11.6% were divorced, 14.0% were single, 3.9% were seperated, 2.3% were widowed and .8% were living with someone. The educational distribution included 5.4% who had completed college, 26.4% who had some college, 55.0% who had completed high school, and 13.2% who had not graduated from high school. Nine years was the

median length of employment within a range of 4 months to 36 years. In addition, the median family income was $25,000 within a range of $6,000 to $100,000. Finally, the median age was 37 years with a range of 20 years to 79 years. In summary, the sample was comprised predominantly of white, male, married, high school graduates with a median age of 37 years.

A Description of the Variables

Measures of the mean, the standard deviation, the skewness, the kurtosis, and the range of variables incorporated into the identity model are presented in Table 1. The mean is an indication of central tendency of the variables. The participation index mean score indicated that people were willing to participate in a large number of programs for which they were eligible. A comparison of health identity commitment mean scores and organizational identity commitment mean scores revealed that individuals tended to have a higher commitment to a constructive organizational identity. The health compliance mean score demonstrated that respondents complied most of the time to the health advice of that social group whose health advice was viewed as most important. The decrease in the strength of supervisory power as one moves from a referent form of power to a coercive form of power suggests that referent power is the form of supervisory power most important in

Table 1

Descriptive Statistics for Variables Included in the Identity Model (N=129)

Variable	Mean	STD DEV	Skewness	Kurtosis	Range
Participation Index Score	.93	.39	-.17	-.09	0-1.8
HealthID-Commitment	6.00	32.46	.28	1.11	-100-90
ORGID-Commitment	27.03	25.47	.73	.47	-36-100
Health Compliance	3.18	.73	-.46	-.56	1-4
Referent Power	5.28	.97	-2.08	7.02	0-6
Legitimate Power	5.01	1.17	-1.52	2.20	1-6
Expert Power	4.62	1.55	-.83	-.36	0-6
Reward Power	2.84	2.00	-.07	-1.25	0-6
Coercive Power	2.42	2.24	.32	-1.40	0-6

the work place; in contrast, coercive power is least important within this work-place.

The standard deviation and the range are indicators of the variability in responses. Overall, the standard deviations and the ranges demonstrated that there was a

variation in responses. The increase in standard deviation as one moved from a referent power source to a coercive power source shows that the variation in responses increases for more external forms of supervisory power such as reward power and coercive power.

The skewness and kurtosis measures are indicators of the normality of the distributions of the measures. The skewness and kurtosis measures of the variables indicated that the distribution of variables was not exactly normal. Health identity-commitment, organizational identity commitment and coercive power were skewed slightly to the right. The distributions for the participation index score, health compliance, referent power, legitimate power expert power and reward power were skewed slightly to the left. In addition, referent power, and legitimate power exhibited a leptokurtic distribution whereas expert power, reward power, and coercive power exhibited a platykurtic distribution. Although each of the variables was not exactly normally distributed, each of the variables was kept in the analysis for two reasons. First, according to Labovitz (1972), variables which violate statistical assumptions should not be immediately discarded; statistics should be chosen on the basis of the degree to which the assumptions are met. All of the variables, with the possible exception of referent power, did not appear to significantly violate the assumption of normality. Second, the residual analysis

performed on all variables to be included within the model did not reveal any significant deviations from assumptions of normality, linearity, and equality of variance. The residual analysis will be discussed in more detail in the section on the path analytic model.

The Nature of Organizational and Health Identity

What is the nature of organizational identity and health identity? A review of the frequency distribution of identity scores was performed in order to gain an insight into identity (see Appendix B, Table 2). Identity scores were created by scoring each response to the "I am..." statements as either a +1, 0, or -1, indicating a constructive orientation, a neutral orientation, or a destructive orientation, respectively. Scores were then summed up for each individual. Positive scores indicate a positive or constructive identity orientation. In contrast, negative scores indicate a negative or destructive identity orientation. The median identity score of +3 for organizational identity indicates a slight positive bias for reporting of organizational identities. The presence of such a bias does not seem unlikely given that the interview was done in the organizational setting and employees expressed concern over the fact that they felt that the information may be used against them. In addition, it is not unreasonable to assume that those individuals who had

extremely negative organizational identities would probably not be working within this setting any longer. In comparison, the median score of 0 for health identity did not reveal a bias in the reporting of health identity. Overall, the scores indicate that organizational identities tend to be more constructive than health identities.

Another insight into the nature of identity was obtained through an assessment of the number of identity statements completed. The number of completed identity statements reveals the extent of commitment, more specifically, the extent to which the identity is incorporated into the self. A frequency distribution of the number of identity statements is provided in Appendix B, Table 3. The median number of statements for both organizational identity and health identity was 7, indicating a fairly high commitment to both identities. In addition, the modal categories for both identities was 10. The concentration of identity statements at the end of the continuum suggests that a large number of individuals could have responded with more than 10 statements. Future studies utilizing this method to assess identity should not limit the number of identity statements. With this correction, the distribution of identity statements should become more normal.

Finally, an insight into identity was obtained by assessing the content of the identity statements. A list of

the actual statements would be prohibitively long. Three types of statements emerged: role statements (e.g., "I am a typist"), esteem statements (e.g., "I am conscientious"), and a combination of the two (e.g., "I am a conscientious typist"). One hundred sixteen destructive statements, 548 constructive statements, and 263 neutral statements were recorded for organizational identity. In contrast, 396 destructive statements, 448 positive statements, and 68 neutral statements were recorded for health identity. Overall, 280 more destructive statements were recorded for health identity than for work identity. Again, the bias toward a more positive work orientation appears in the data.

Subjective Health Status and Health Identity-Commitment

What is the nature of the relationship between subjective health status and health identity-commitment? An analysis of the relationship between health status and identity-commitment indicates if one's identity commitment is related to actual health status. The frequency distribution of health status scores and of health identity-commitment scores is presented in Appendix B, Table 4 and Table 5, respectively.

A review of the health status scores indicates that two-thirds of the respondents believed that they were in excellent to fair health. In comparison, approximately one-half of the respondents indicated that they had a

constructive identity-commitment (score > 1). Utilizing Pearson's product-moment correlation, subjective health status and health-identity commitment were found to be moderately and positively associated (r=.37, p LE .001). People who indicated that their health status was poor tended to have a high commitment to a destructive or negative identity. In contrast, people who rated their health status as excellent tended to indicate a high commitment to a constructive or positive health identity. These data indicate that those individuals who do not perceive their health status as extreme tend to exhibit a lower commitment to their identities.

Constructive/Destructive Orientations and Identity-Commitment

Can someone be strongly committed to a destructive orientation? A review of the distributions of identity-commitment scores provides some insight into the answer to this question (see Appendix B, Table 5). The top 25th percentile of possible destructive oriented scores (e.g., those scores between -50 and -100), revealed that there were no cases of strong identity commitment to a destructive work orientation. However, 2.3% of the cases revealed a strong commitment to a destructive health identity. In addition, 5.4% and 41.1% of cases reported a destructive organizational identity-commitment and health identity-

commitment, respectively. These results indicate that individuals can have destructive or negative identities; in addition, individuals may be strongly committed to a negative identity.

Supervisory Power and the Work Organization

What is the nature of the normative form of power within the work organization being studied? The five forms of supervisory power assessed in this study were referent power, legitimate power, expert power, reward power, and coercive power. The median category for each of the forms of power is presented in Appendix B, Table 6. The median categories are derived from a seven point Thurstone-type scale ranging from not at all important to extremely important.

The form of supervisory power which predominated within this work place was referent power, though the other forms of power also played roles within the work-place. The appearance of the fair importance of coercive power (a score of 2 on a scale of 0 to 6) implies the possibility of a coercion bias. In other words, some employees may have felt either that they had to participate in the interview or that the responses may be used against them. The validity of these employees' responses still remains to be determined.

The Nature of Health Compliance

The two guiding questions which approach the nature of health compliance will be tentatively answered within this section. First, an answer to the question "What social groups' health advice is deemed most important to the individual?" will be broached. Second, this section will treat the question "How often do individuals comply with that social group whose health advice is deemed most important?"

Little if any work has been done on the importance of different social groups' health advice and compliance to health directives from groups other than physicians and health care workers. In order to determine which social groups' health advice the respondents felt to be most important, the respondents were asked to rank-order the importance of health advice from doctors, family members, friends, and health-care workers other than doctors. The frequency with which each social groups' health advice was ranked <u>most important</u> is presented in Appendix B, Table 7. Approximately three-quarters of the employees perceived their doctor's health advice to be the most important. In addition, approximately one-fifth of the employees believed their family's health advice to be the most important.

How often do individuals comply with that social group whose health advice is deemed most important? The overall level of compliance to the group whose health advice was

viewed as most important is presented in Appendix B, Table 8. The respondents revealed a fairly high level of compliance to those social groups whose health advice was most important to them. The median and modal category indicate that individuals complied most of the time.

A Path Analytic Model

Within this section, the specific hypotheses stated in Chapter II will be analyzed. To test the relationship between variables included in the model and variables related to model variables, Pearson's Product Moment Correlations were computed (see Table 9).

A review of the correlation matrix reveals no evidence of colinearity. However, a number of relationships are particularly noteworthy. First, only two of the variables to be included in the identity model, health identity commitment and health compliance, appeared to be significantly associated with the dependent variable. Second, health compliance and a referent power-based supervisory style were significantly related (r = .224, p LE .01). Although not predicted by the model, the relationship between compliance and referent power suggests that those people who respond to a referent power base are more likely to comply with health directives. Finally, the various forms of supervisory power were significantly and

Table 9

Correlation Matrix for Factors Related to Program Participation (N=121)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Willingness to Participate	1.00								
2. HealthID-Commitment	.28**	1.00							
3. Organizational ID-Commitment	.12	.08	1.00						
4. Health Compliance	.23*	.20*	-.02	1.00					
5. Referent Power	.06	.10	-.01	.20*	1.00				
6. Legitimate Power	.11	.13	.11	.08	.37**	1.00			
7. Expert Power	.14	.07	.10	.19	.45**	.38**	1.00		
8. Reward Power	.04	.06	.02	.08	.25*	.21*	.40**	1.00	
9. Coercive Power	.05	.02	-.19	.04	-.06	.10	-.05	.18*	1.00

* p <= .05. ** p <= .001.

moderately associated with each other. Since each of these variables was measuring a form of supervisory power, the relationships were not unexpected. Collapsing the supervisory power variables into an index score would not maintain its logical validity. Therefore, each of the variables was entered separately into the identity model.

Another simple correlation which was not put into the correlation matrix deserves mentioning. Perceived coerciveness of supervisors was significantly and negatively associated with the number of organizational identity statements reported (r = -.271, p LE .01). The relationship between the number of identity statements and perceived coercion in the work-place indicated that as coerciveness in the work-place increased, the number of organizational identity statements reported decreased. The impact of this coercion bias upon the model will be investigated in more detail, below.

A residual analysis was then computed for the variables which were to be included in the model. In general, the residual analysis revealed that the assumptions of linearity, normality of the population, and homoscedasticity were not significantly violated. However, the relationships between organizational identity-commitment and each of the five forms of supervisory power appeared to be skewed slightly to the right. The larger than expected number of positive scores may be related to the coercion

bias indicated above; those people who were suspicious of the survey or who felt that their supervisors were coercive may have presented more positive answers than expected. Since the skewness was not extreme, the variables were kept in the analysis.

In order to ascertain the relative influence of the variables upon willingness to participate in health promotion programming, a multiple regression was conducted. The results of the multiple regression are presented in Table 10. A number of patterns are worth noting. First, when controlling for other variables in the regression model, none of the forms of supervisory power were related to the dependent variable. Second, the low positive association between health identity-commitment and the dependent variable was the only relationship within the regression model which achieved significance ($p <= .05$). However, the low positive association between compliance and the dependent variable almost achieved significance.

In order to ascertain the relative influence of variables in the model upon willingness to participate in health promotion programming, path analysis was conducted. Since the multiple regression revealed that the forms of supervisory power and organizational identity-commitment were not signifcantly associated with the dependent variable, these variables were not included within the path analysis. Table 11 shows the results of the path analysis.

Table 10

Multiple Regression Results for Identity Model Variables upon Willingness to Participate (N=121)

Variable	r	B	Beta	S.E.	T	Sig T.
HealthID-Commitment	.28***	.00**	.23	.09	2.5	.01
ORGID-Commitment	.12	.00	.11	.09	1.2	.23
Health Compliance	.23**	.09*	.18	.09	1.9	.06
Referent Power	.06	-.02	-.04	.10	-.39	.70
Legitimate Power	.11	.01	.02	.10	.23	.82
Expert Power	.14	.03	.11	.11	1.0	.30
Reward Power	.04	-.04	-.04	.10	-.45	.65
Coercive Power	.05	.01	.08	.09	.81	.42

Note. R^2 (adjusted) = .074.

* p = .06. ** p <= .05. *** p <= .01.

Table 11

Decomposition of Health Identity upon Willingness to Participate in Health Promotion Programs (N=121)

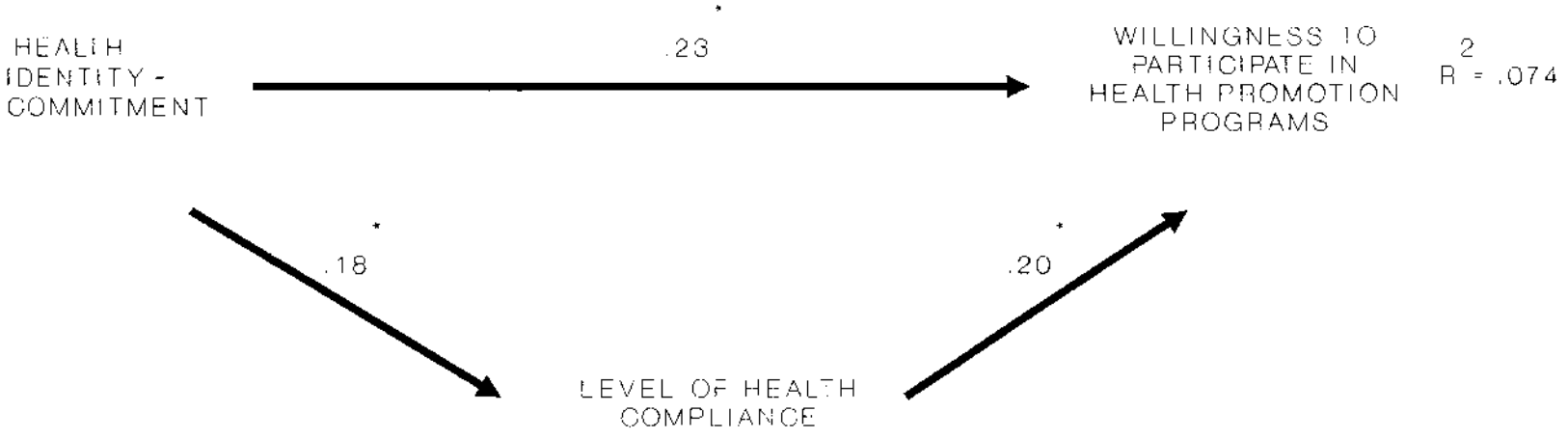
Bivariate Relationship	Total Covariance	Causal			Non-Causal
		Direct	Indirect	Total	
Participation & HealthID-Commitment	.28**	.23	.04	.27	.04
Participation & Health Compliance	.23*	.18	NONE	.18	.07
Health Compliance & HealthID-Commitment	.20*	.20	NONE	.20	NONE

Note. Health Path R^2 = .074.

* p <= .05. ** p <= .001.

The model accounted for only 7.4% of the variance in the dependent variable leaving 92.6% of the variance unexplained. The decomposition table is graphically depicted in Figure 4.

The path analysis provides the necessary information to investigate hypotheses 1-6 presented in Chapter II. Research hypotheses can not be directly proven. Rather, a researcher must state the opposite hypothesis or null hypothesis and prove that the null hypothesis is false.



* $p <= .05$

Figure 4. Path diagram of identity model variables.

Thus, it is feasible that the research hypothesis represents an actual relationship. The null hypothesis for the first six research hypotheses presented in Chapter II will be analyzed in sequential order.

Null hypothesis 1 states that there is no relationship between organizational identity-commitment and the probability of participating in health promotion programming. The null hypothesis is supported because the low positive association between the two variables did not achieve significance.

Null hypothesis 2 states that there is no relationship between health identity-commitment and the dependent variable. The null hypothesis is rejected since a low positive association between the two variables achieved significance.

Null hypothesis 3 states that there is no change in relationship between the forms of supervisory power as one moves from a coercive to a referent power basis. The null hypothesis is supported since none of the relationships between the forms of supervisory power and dependent variable achieved significance.

Null hypothesis 4 states that there is no relationship between compliance to that social group whose health advice is ranked as most and willingness to participate in health promotion programming. The null hypothesis is rejected due to the appearance of a significant low positive association.

Null hypothesis 5 states that there will be no relationship between commitment to health identity, compliance to health directives, and willingness to participate in health promotion programming. The null hypothesis is rejected in favor of the research hypothesis which states that those people with a higher commitment to their health identity will have a higher compliance to health directives and will have a higher probability of participating in health promotion programming. The research hypothesis is supported by the significant low positive associations between health identity-commitment and the level of health compliance, and between the level of health compliance and willingness to participate in health promotion programming.

Null hypothesis 6 states that within categories of health power, there is no relationship between organizational identity-commitment and willingness to participate in health promotion programming. The null hypothesis is supported by the nonexistence of a significant relationship between organizational identity-commitment, forms of supervisory power, and willingness to participate in health promotion programming.

Investigation of hypotheses 7 and 8 required the splitting of the data file on the basis of the response to the question "Which is more important to you, your health or working for _____ City?" Eighty-three percent of the sample

(N=106) stated that their health was more important to them than their work for _____ City. Seven percent of the sample (N=9) stated that their work for _____ City was more important to them. Since there were only 9 cases in the latter grouping, it was not feasible to compare the two groups using multiple regression analysis. A comparison of first-order correlation coefficients, however, provides some insight into the effect of differential identity relations (see Table 12).

A comparison of the correlations for those who felt that their health was more important than work and the overall sample reveals very little difference. When comparing the association for those who felt work more important than health with those who felt that their health was more important, two relationships are worth noting. First, the relationships between health identity-commitment and the dependent variable, and between health compliance and the dependent variable, were no longer significant for those who ranked work more important. Second, a strong positive relationship appeared between legitimate power and the dependent variable and between reward power and the dependent variable for those who felt that work was more important. Although the strong relationship between legitimate power and the dependent variable may be evidence of collinearity, future studies should investigate the relationship between the influence that the forms of

Table 12

First Order Pearson Correlation Coefficients Between Willingness to Participate in Health Promotion Programming and Identity Model Variables as Influenced by Health or Work more Important

Variable	Health (N=106)	Work (N=9)	Overall (N=129)
HealthID-Commitment	.30*	.49	.31*
ORGID-Commitment	.13	-.11	.14
Health Compliance	.23*	.27	.25*
Referent Power	.03	.39	.05
Legitimate Power	.06	.90**	.10
Expert Power	.13	.40	.15
Reward Power	.00	.66*	.15
Coercive Power	-.01	.48	.02

*p <=.05. **p <= .001.

supervisory power have upon program participation for those individuals who feel that their work is more important than their health.

In an attempt to discover why the organizational path was not significant and why the model did not explain more of the variance, the data was reviewed. As noted previously, the significant negative relationship between the number of organizational identity statements and the perceived level of supervisory coerciveness indicated a potential bias in the data. In order to discover if this coercion bias suppressed the relationship between organizational identity and willingness to participate, the data file was split in a number of ways based upon the perceived level of supervisory coerciveness. First, those individuals who felt that their supervisors were not at all coercive were grouped together (score = 0, N = 43); those individuals who felt that their supervisors were coercive (score = 1, 2, 3, 4, 5, 6; N = 83) were also grouped together. Second, those individuals who stated that supervisory coercion was not at all important or only a little important for compliance (score = 0, 1, respectively; N = 56) were grouped together; those who stated that supervisory coercion was fairly important, important, pretty important, very important or extremely important (score = 2, 3, 4, 5, and 6, respectively; N = 70) were also grouped together. Third, those individuals who felt that

supervisory coercion was either not at all important, a little important, or fairly important (score= 0, 1, 2, respectively; N = 65) were grouped together; those individuals who stated that supervisory coercion was important, pretty important, very important, or extremely important (score = 3, 4, 5, 6, respectively; N = 61) were grouped together. The results of the multiple regressions using a forced entry technique indicated that the second method which split the file between those who felt supervisory coercion was a little important and those who felt it was fairly important maximized the variance explained by the independent variables while maintaining the significance of the relationships.

The results of a Pearson's Product Moment correlation conducted to compare the relationships between willingness to participate in health promotion programming and the independent variables are presented in Table 13.

Removing the effects of supervisory coercion from the sample resulted in strengthening the relationships between all the independent variables and willingness to participate in wellness programming except for organizational identity-commitment and reward power. In addition, the relationship between the dependent variable and referent power, legitimate power, and expert power became significant when the influence of supervisory coercion was removed. None of the relationships for those individuals who felt that

Table 13

First-Order Correlations between Willingness to Participate in Health Promotion Programming and Other Factors as Influenced by Coercion

Variable	Low Coercion (N=54)	Coercion (N=67)	Overall (N=121)
HealthID-Commitment	.34*	.22*	.28*
ORGID-Commitment	.21	.08	.12
Health Compliance	.41**	.12	.23*
Referent Power	.33*	-.09	.06
Legitimate Power	.35*	-.12	.11
Expert Power	.31*	.01	.14
Reward Power	-.03	.07	.04

* p LE .01. ** p LE .001.

supervisory power was important for compliance was significant except for the relationship between health identity commitment and willingness to participate.

A multiple regression using the forced entry technique was then computed to assess the relationships between each

of the independent variables and the dependent variables. The results are presented in Table 14.

The variables in the multiple regression model explain 29% of the variance in willingness to participate in health promotion programming. As indicated in Table 14, health compliance was the only variable whose relationship to the dependent variable achieved significance ($p <= .05$) after controlling for the effects of other model variables. In addition, the relationship between health identity-commitment and the dependent variable almost achieved significance. Finally, the relationships between the forms of supervisory power and the dependent variable did not maintain their significance after controlling for other variables in the identity model.

The total covariance for each of the independent variables was decomposed into direct and indirect relationships. The results of the decomposition are presented in Table 15. The 29% of the variance in willingness to participate in health promotion programming appears to be primarily explained by organizational identity-commitment, health identity-commitment, and health compliance. The effect of organizational identity-commitment upon the dependent variable appears not to be mediated by the forms of supervisory power; the indirect causal relationships between organizational identity-commitment and the dependent variables are all virtually

Table 14

Regression of Willingness to Participate upon Variables in the Identity Model for Cases with No or Low Coercion (N=54)

Variables	r	B	Beta	S.E.	T.	Sig T
HealthID-Commitment	.34**	.00*	.23	.12	1.9	.06
ORGID-Commitment	.21*	.00	.21	.12	1.7	.12
Health Compliance	.41**	.16**	.29	.13	2.3	.03
Referent Power	.33**	.03	.06	.17	.38	.71
Legitimate Power	.35**	.06	.18	.14	1.3	.19
Expert Power	.31**	.04	.17	.16	1.1	.29
Reward Power	-.03	-.04	-.20	.13	-1.6	.11

Note. R^2 (adjusted) = .29.

* $p = .06$. ** $p <= .05$.

non-existent. In addition, almost half of the relationship between participation and the forms of supervisory power is non-causal. A graphic depiction of the path model is presented in Figure 5.

Table 15

Decomposition of Willingness to Participate in Health Promotion Programming upon Variables in the Regression Model for Cases with No or Low Coercion (N=54)

Bivariate Relationship	Total Cov.	Causal			Non-Causal
		Direct	Indirect	Total	
Participation & ORGID-Commitment	.21*	.21	.02	.23	.04
Participation & Referent Power	.33**	.06	NONE	.06	.27
Participation & Legitimate Power	.35**	.18	NONE	.18	.17
Participation & Expert Power	.31**	.17	NONE	.17	.14
Participation & Reward Power	-.03	-.20	NONE	-.20	.17
Referent Power & ORGID-Commitment	-.06	.05	NONE	.05	.00
Legitimate Power & ORGID-Commitment	.17	.17	NONE	.17	.00
Expert Power & ORGID-Commitment	-.07	-.07	NONE	-.07	.00
Reward Power & ORGID-Commitment	-.10	-.10	NONE	-.10	.00
Participation & HealthID Commitment	.34**	.23	.07	.30	.05
Participation & Health Compliance	.41**	.29	NONE	.29	.10

(table continues)

Bivariate Relationship	Total Cov.	Causal			Non-Causal
		Direct	Indirect	Total	
Health Compliance & HealthID Commitment	.25**	.24	NONE	.24	.00

Note. Total R^2 = .29

* p = .06. ** p <= .05.

In an attempt to achieve the most parsimonious model, the forms of supervisory power were removed from the model and another regression analysis was performed. Table 16 provides the regression analysis. The regression model explained approximately 25% of the variance in willingness to participate in health promotion programming. A comparison of the average variance, explained by the identity models which included the forms of supervisory power, with the identity model, which just included 4 variables, indicates that almost all of the variance in willingness to participate explained by the 8-variable model is explained by just three variables: health identity-commitment, organizational identity, and health compliance. The forms of supervisory power do not seem to explain any unique variance. The results of the decomposition of the

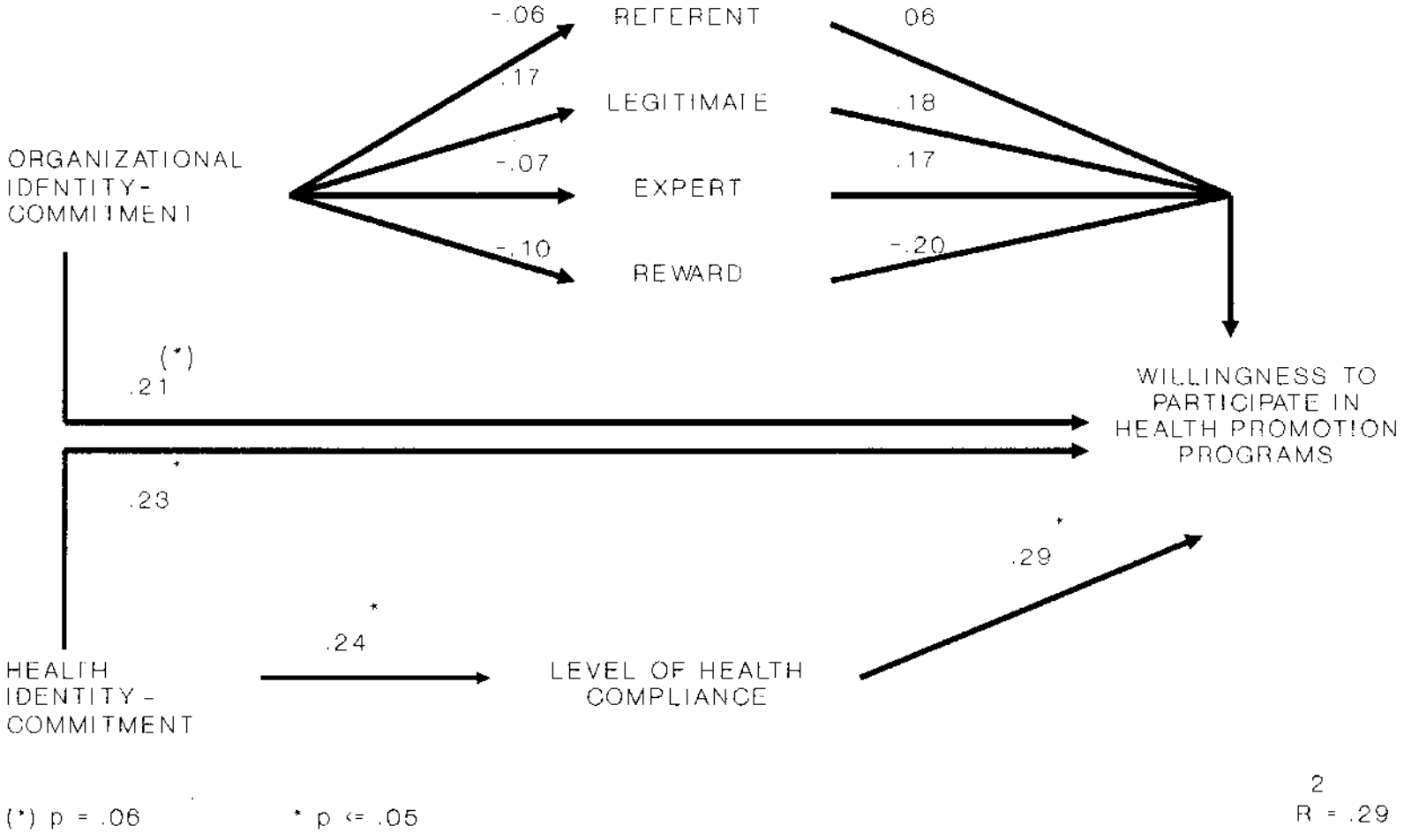


Figure 5. Path diagram for identity model variables for cases with no or low coercion.

Table 16

Regression Analysis for Willingness to Participate in Health Promotion Programming upon Selected Variables for Cases with No or Low Coercion (N=54)

Variables	r	B	Beta	S.E.	T.	Sig.T
HealthID-Commitment	.35**	.00**	.25	.12	2.05	.05
ORGID-Commitment	.21*	.00**	.25	.12	2.08	.04
Health Compliance	.39	.20**	.37	.12	3.0	.004

Note. $R = .54$. R^2 (adjusted) = .249.

* $p = .06$. ** $p <= .05$.

relationships are presented in Table 17. A graphic illustration of the path model is presented in Figure 6.

Each of the research hypotheses presented in Chapter II will be reviewed because the elimination of both the effect of perceived supervisory coercion and the forms of supervisory power substantially changed the relationships between the identity model variables. As mentioned previously, a null hypothesis must be rejected in order for the research hypothesis to be possibly be true. Null hypothesis 1 stated that there is no relationship between

Table 17

The Decomposition of Willingness to Participate in Health Promotion Programming Upon Identity Model Variables for Cases with No or Low Coercion (N=54)

Bivariate Relationship	Total Cov.	Causal			Non-Causal
		Direct	Indirect	Total	
Participation & ORGID-Commitment	.21 *	.25 **	0	.25	-.04
Participation & HealthID-Commitment	.35 *	.25 **	.09	.34	.01
Compliance & HealthID-Commitment	.24 **	.24 **	NONE	.24	.00
Participation & Compliance	.39 **	.38 **	NONE	.37	.02

Note. $R^2 = .249$

* $p = .06$. ** $p <= .05$.

organizational identity-commitment and the probability of participating in health promotion programming. The null hypothesis is disproved by the appearance of a significant low positive association between the two variables.

Null hypothesis 2 stated that there is no relationship between health identity-commitment and the dependent

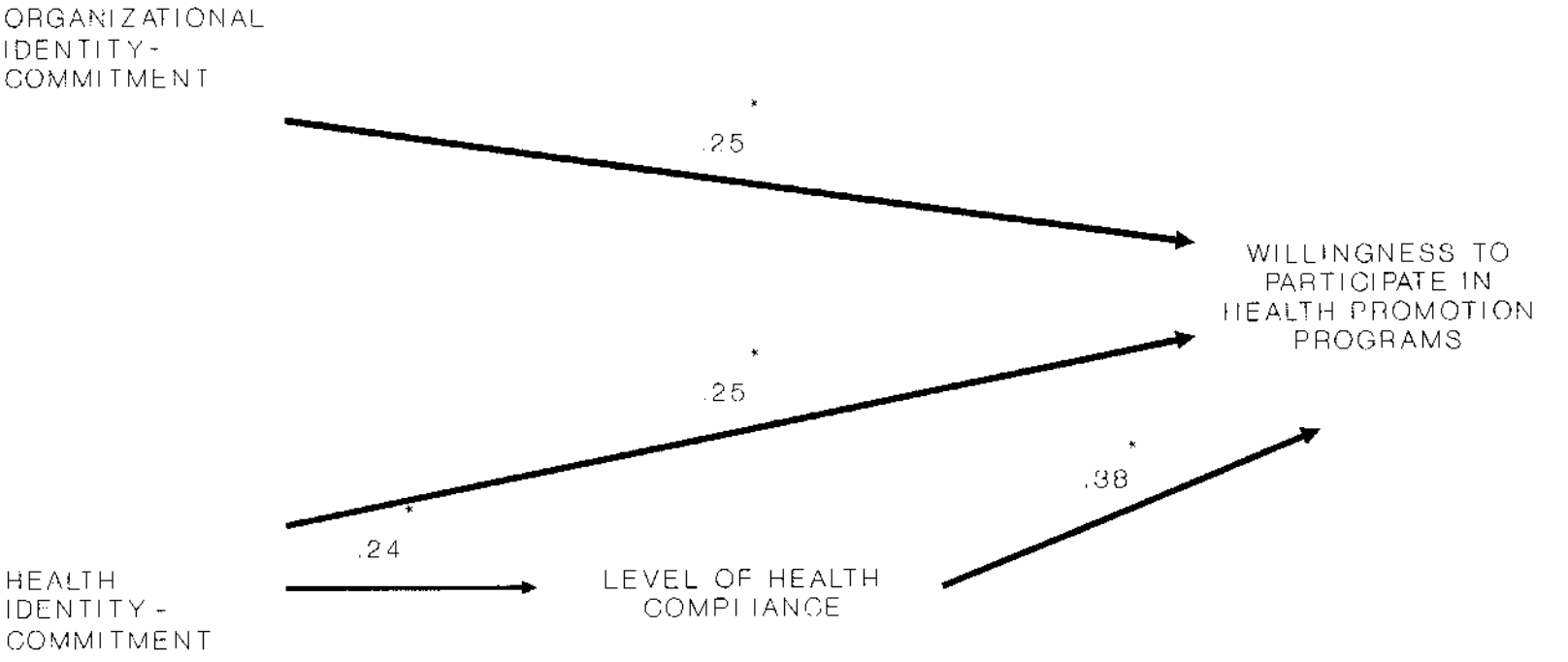


Figure 6. Parsimonious identity model path diagram.

variable. The null hypothesis is rejected since a low positive association between the two variables achieved significance.

Null hypothesis 3 stated that there is no change in the relationship between the forms of supervisory power and the dependent variable as one moves from a coercive to a referent power base. The null hypothesis is accepted because none of the relationships between the forms of supervisory power and willingness to participate in health promotion programming achieved significance.

Null hypothesis 4 stated that there is no relationship between compliance to that social group's health advice which is ranked as most important and willingness to participate in health promotion programming. The null hypothesis is rejected because of the appearance of a significant moderate positive association between the variables.

Null hypothesis 5 stated that there will be no relationship between commitment to health identity, compliance to health directives, and willingness to participate in health promotion programming. The null hypothesis is rejected in favor of the research hypothesis which states that those people with a higher commitment to their health identity will have a higher compliance to health directives and will have a higher probability of participating in health promotion programming. The research

hypothesis is supported by the significant low positive associations between health-identity commitment and level of health compliance, and between level of health compliance and willingness to participate in health promotion programming.

Null hypothesis 6 states that within categories of supervisory power, there is no change in the relationship between organizational identity-commitment and willingness to participate in health promotion programming. This null hypothesis is supported by the non-existence of a significant relationship between organizational identity-commitment, forms of supervisory power and willingness to participate in health promotion programming.

CHAPTER V

DISCUSSION AND CONCLUSIONS

The goal of this study was to develop a model for the understanding of health behaviors within an organizational setting. Within this chapter, the results of the data analysis will be discussed as they pertain to existing theoretical models and future research. In addition, conclusions will be stated.

A number of limitations on this study exist. First, the study was a cross-sectional study rather than a longitudinal study. Therefore, testing the temporal ordering of the variables to verify the predicted causal relationship was not possible. However, this initial study did establish a relationship between the variables in the identity model, the first step in testing any model. Second, the study was based upon a subjective rather than an objective interpretation. For example, the researcher does not actually know the level of compliance of the respondent to that group whose health advice is viewed as most important. Such a criticism has been levied against most studies which rely upon the respondents' views as the basis of scientific investigation. Such a criticism ignores the primary premise of interactionist studies, however; what an

individual feels about a social issue, fact or not, is the most important facet of behavior which needs to be understood by the researcher. In interactionist studies, individual interpretation is felt to be the primary motivator of individual behavior. Finally, the most obvious short-coming of this study is that a measure of actual participation in health promotion programming was not included. The author's primary concern was the influence of identity upon the development of attitudes or beliefs. The attitude, according to Secord and Backman (1964), is the beginning of the act. Although the inclusion of a measure of participation would have been ideal, the exclusion of such a measure resulted in a study which has provided some useful information.

A general insight into the nature of identity and behavior was provided by the descriptive data analysis of the guiding questions. The respondents appeared to have a more positive orientation to their health identities than to their work identities. Such a difference in orientation, however, may be a reflection of the environment within which the interview was conducted; respondents may have felt uneasy about saying negative things about their work orientation.

Subjective health status was positively and moderately associated with health identity-commitment. Those individuals with a poor health status indicated a strong

commitment to a negative health identity. In contrast, those individuals with an excellent health status indicated a strong commitment to a positive health identity. Those individuals with fair to good health status indicated a more neutral/weaker commitment to their health identity. The visibility of health initiatives and issues within an individual's health arena may influence the level of commitment to one's identity. For example, individuals who claim an excellent health status may spend a lot of time preoccupied with health initiatives such as exercising and dieting. In contrast, those people who declare a poor health status may also spend a lot of time attending to their health by visiting doctors, and so on. Those individuals whose health is not an issue (e.g., those who feel that their health is fair to good) would be expected to participate in fewer health activities and, thus, be expected to exhibit a lower commitment to their health identity.

Individuals were also shown to be strongly committed to a destructive or negative identity. The existence of a strong commitment to a negative identity contradicts McCall and Simmon's (1978) proposal that identities reflect how one would ideally like to be as an occupant of a given status. Twelve and one half percent of the organizational identity statements and 43% of the health identity statements were negatively or destructively oriented. Commitment, as

defined by Cheney (in press), exhibits a strong positive relationship with incorporation into self. If this is true, then destructive identities can also be motivating forces in behavior. Thus, the individual who is highly committed to his or her orientation as a smoker and drinker will continue to smoke and drink. Since identities are formed through interactions within the environment, if the organization desires to change the destructive health identity or organizational identity to a more constructive one, situations must be provided in which the individual can perceive himself or herself in such a light (e.g., as a non-smoker or a non-drinker).

Both the physician and the family played important roles as health advice givers with the physician clearly ranked as the most important health advice giver. However, 1 out of 5 people felt that his or her family's health advice was the most important. Compliance to the group whose health advice is perceived as more important was high; over four-fifths of the respondents indicated that they complied most of the time or all of the time with the health advice of the group viewed as most important. These results have direct implications for compliance research; the family should be counted as a valuable ally in attempts to get patients to comply.

The path analysis was conducted in an attempt to identify factors useful in the prediction of attitudes

toward participating in health promotion programming. The creation of a parsimonious identity model which alleviated the effects of perceived coerciveness of the work-place was a valuable development. The parsimonious identity model accounted for one-quarter of the variance in willingness to participate in health promotion programming. The research hypotheses which were supported by the results from the analysis of the parsimonious identity model will be discussed below.

First, organizational identity-commitment exhibited a low positive association with the dependent variable. Those individuals who had a high commitment to a negative identity tended to have a lower willingness to participate in health promotion programming than those individuals that had a high commitment to a positive identity.

Second, both health identity-commitment and compliance exhibited a moderate positive association with the dependent variable. As with organizational identity-commitment, those people who were highly committed to a negative health identity tended to have a lower willingness to participate in organizational health promotion programming than those people who possessed a high commitment to a positive identity. In addition, those people who tended to comply more to the group whose health advice is viewed as most important to them tended to be more willing to participate in health promotion programming.

Finally, health identity-commitment and compliance exhibited a low positive association. Those people who had a high commitment to a destructive health identity tended to comply less to the health advice of the social group whose health advice was viewed as more important to them than those people who had a high commitment to a constructive health identity.

A number of problems were encountered with the testing of the identity model. One problem which developed was that the measures of supervisory power were not significantly related to the dependent variable after the effects of the other variables were taken into account. Two methods of deciphering the relationship between the forms of supervisory power and health promotion programming are proposed. First, an overall measure of the importance of the various forms of supervisory power may prove helpful. Respondents could be asked to rank the forms of supervisory power in the order of importance for compliance. The creation of a composite score would lead to the prediction that those individuals who felt that referent power was more important than coercive power would be more willing to participate in health promotion programming. Second, perhaps the reason why no relationship appeared between the forms of supervisory power and the dependent variable was that the compliance orientation to specific individuals was

measured. A measure of compliance or power orientation to the organization as a whole may be more appropriate.

Another problem with testing the influence of the hierarchy of prominence upon behavior emerged. The multiple regression analysis and the path analysis were prohibited by the small number of respondents who indicated that their organizational identity was more important than their health identity. As a result, Pearson's product-moment correlation was the only statistic which could be used for comparative purposes. The comparison revealed that legitimate power had a strong positive relationship with the dependent variable for those who felt that their work was more important than their health. Such a strong association may be an indicator of collinearity; for those people who feel that their organizational identity is more important than their health identity, perhaps the perceived legitimacy of their supervisor and willingness to participate in the health promotion program are one and the same thing. Future research into the characteristics of that group of people who feel that their work is more important than their health seems warranted.

A final, more important problem was encountered within this study. The effects of perceived supervisory coercion distorted the relationships between those variables in the organizational identity path. Although supervisory coerciveness was only regarded as fairly important within

the work-place being studied, the appearance of a perceived fair to high level of coerciveness by respondents resulted in apparent inaccurate or incomplete data, especially for the organizational path. However, since a measure of supervisory coerciveness was included within the study, adjustments of the data could be made. Future studies which take place within an organizational setting should take into account the possible effects of coercion. In addition, more accurate results might be obtainable by assessing organizational identity in a non-organizational environment.

The identity model can be compared to existing models which attempt to explain health behaviors. The identity model is an operationalized version of a portion of the interactionist model of motivation presented by Turner (1987) (see Figure 1). The relationships between development of a substantive self-concept and the definitions of and orientations to situations are supported by the results from the testing of the operationalized identity model. The adaptation of Turner's (1987) model to include the differential influence of two identities demonstrates the flexible nature of the model. Researchers can then adapt the model to test the relationship between identities which emerge from specific situations and resultant behaviors.

The identity model overcomes some of the problems encountered by both Allport's (1935) model and the Health

Belief Model (HBM). First, the identity model takes into account the situational context of attitude and behavior formation through the use of identity constructs which are grounded in reference groups and the inclusion of the definition of the situation. Second, the identity model includes the various sources of health advice which may affect compliance behaviors. Third, the identity model does not rely solely upon beliefs about a situation; rather the emphasis is placed upon the basis of belief formation, identity. Unlike the HBM, the identity model proposes that only those experiences which have self-impact or identity impact would tend to modify the identity construct and have long-lasting impact. Fourth, the identity model provides an intervention point for the development of health promotion programming. Programs which either emphasize reflexive thinking or attempt to devise a health identity/organizational identity which is a view of how one would like to be as an occupant of a social status, the "ideal self" (McCall & Simmon, 1978), could prove effective. Finally, although the causal nature of identity was not explicitly tested, the existence of a more global health identity and organizational construct prior to immersion in a specific program/treatment (e.g., health promotion programming) would allow for prediction. Therefore, those people who would not participate under ordinary circumstances could be identified and targeted.

Although an insight into the nature of identity and behavior was presented, a number of areas still need to be researched. First, since the forms of supervisory power did not explain any of the unique variance in willingness to participate in health promotion programming, other variables which influence the definition of the situation should be identified. Organizational alienation and work satisfaction, two extensively studied organizational variables, might be useful in this regard.

Second, the hierarchy of prominence and its effects on behavior still needs to be investigated. Within this study, the descriptive results from the small number of people who felt that their organizational identity was more important than their health identity implicate further investigation of this group of people. What are the factors which influence such a strong organizational orientation?

Third, the relationship between health identity-constructs and the HBM variables needs to be studied. Identity appears be an important factor in the formation of attitudes. The proposed identity model and the HBM, as described in Chapter I, may be complementary components of a larger model which better explains health behaviors. The identity model encompasses beliefs/attitudes in the definition of the situation. Therefore, the health belief model may exert its influence upon the identity model through the health compliance variable. The two models

logically appear to be related to one another. If this is indeed the case, it is important to know if separate models explain any unique variance and how much of the variance in health behavior can be explained by an identity-belief model.

Finally, the relationship between power and health compliance should be researched. One unexpected result from the data analysis was the significant positive relationship between perceived importance of referent power as a basis for organizational compliance and level of health compliance. The forms of power which health advisors use and the importance of these powers to individuals may provide some insight into the nature of health compliance.

In summary, the development of a symbolic interactionist model of motivation has been shown to be useful in the understanding of health behaviors within an organizational setting. A descriptive overview revealed the following: (a) Subjective health status is positively and moderately associated with health identity-commitment; (b) individuals can be strongly committed to a negative/destructive health identity; and (c) both the family and physician play important roles as health advice givers.

The results from the path analysis indicated the following. First, organizational identity-commitment exhibited a low positive relationship with willingness to

participate in health promotion programming. Second, both health identity-commitment and health compliance exhibited a moderate positive association with willingness to participate in health promotion programming. Finally, health identity commitment and health compliance exhibited a low positive relationship with willingness to participate in health promotion programming. Together, these independent variables accounted for 35% of the variance in the dependent variable.

The identity model appears to be a useful tool in the understanding of health behaviors. Turner's (1987) model, from which the identity model was derived, is supported by these results. In addition, the identity model appears to circumvent some of the problems posed by the Health Belief Model and Allport's (1935) model.

APPENDIX A

CONSENT FORM

Hello!

My name is Linda Weber. I am conducting this health survey for the city. You are one of 150 employees selected to participate in this survey. The survey is designed to assess your present health practices, work practices, health beliefs, and work beliefs. The survey will be used to help develop a wellness program for all employees of Bossier City. Wellness programs usually include such activities as blood-pressure monitoring, aerobics classes, stress management classes, weight reduction classes, smoke reduction classes, and other services to meet your physical and mental health needs.

_____ will have access to this information about you. I am not an employee of the city. When reports on the results of this survey are made, no information will be able to be identified as coming from you. Absenteeism and insurance information will be pulled from existing files in the personnel office and health benefits office.

You have the right to refuse to answer particular questions or to refuse to participate. I wish that you would at least start the survey.

Do you have any questions regarding this study or the safe-keeping of information?

If not, please sign this sheet. Your signature indicates that you voluntarily agree to participate in the study and that the above information was read to you.

_____

APPENDIX B

TABLES

Table 2

The Frequency Distribution of Organizational Identity Scores and Health Identity Scores

Value	Frequency	Percent	Cumulative Percent
Organizational Identity:			
-4.00	1	.8	.8
-2.00	4	3.1	3.9
-1.00	2	1.6	5.4
.00	9	7.0	12.4
1.00	14	10.9	23.3
2.00	24	18.6	41.9
3.00	17	13.2	55.0
4.00	16	12.4	67.4
5.00	12	9.3	76.7
6.00	15	11.6	88.4
7.00	7	5.4	93.8
8.00	3	2.3	96.1
9.00	4	3.1	99.2
10.00	1	.8	100.0
Total	129	100.0	
Health Identity:			
-10.00	1	.8	.8
-8.00	1	.8	1.6
-7.00	1	.8	2.3
-6.00	3	2.3	4.7
-5.00	8	6.2	10.9
-4.00	5	3.9	14.7
-3.00	13	10.1	24.8
-2.00	12	9.3	34.1
-1.00	9	7.0	41.1
0.00	12	9.3	50.4
1.00	14	10.9	61.2
2.00	14	10.9	72.1
3.00	12	9.3	81.4
4.00	5	3.9	85.3
5.00	6	4.7	89.9

(table continues)

Value	Frequency	Percent	Cumulative Percent
6.00	4	3.1	93.0
7.00	2	1.6	94.6
8.00	2	1.6	96.1
9.00	5	3.9	100.0
Total	129	100.0	

Table 3

The Frequency Distribution of the Number of Organizational Identity Statements and Health Identity Statements Completed

Value	Frequency	Percent	Cumulative Percent
Organizational Identity:			
2	3	2.3	2.3
3	8	6.2	8.5
4	14	10.9	19.4
5	7	5.4	24.8
6	18	14.0	38.8
7	17	13.2	51.9
8	15	11.6	63.6
9	11	8.5	72.1
10	36	27.9	100.0
Total	129	100.0	
Health Identity:			
1	2	1.6	1.6
2	2	1.6	3.2
3	4	3.1	6.2
4	10	7.8	14.0
5	18	14.0	27.9
6	19	14.7	42.6
7	15	11.6	54.3
8	15	11.6	65.9
9	15	11.6	77.5
10	29	22.5	100.o
Total	129	100.0	

Table 4

The Frequency Distribution of Health Status Scores

Health Status	Frequency	Percent	Cumulative Percent
Poor	10	7.8	7.8
Fair	33	25.6	33.3
Good	65	50.4	83.7
Excellent	21	16.3	100.0
Total	129	100.0	

Table 5

The Frequency Distribution of Organizational and Health Identity-commitment Scores

Values	Frequency	Percent	Cumulative Percent
Organizational Identity-Commitment:			
-30-(-39)	1	.8	.8
-21-(-30)	0	0.0	.8
-11-(-20)	4	3.2	3.9
-1-(-10)	2	1.6	5.4
0	9	7.0	12.6
1-10	27	21.1	33.3
11-20	22	17.1	50.4
21-30	18	14.1	64.3
31-40	16	12.5	76.7
41-50	10	7.8	84.5
51-60	9	7.4	91.5
61-70	3	2.4	93.8
71-80	3	2.3	96.1
81-90	4	3.1	99.2
91-100	1	.8	100.0
Total	129	100.0	
Health Identity-Commitment:			
-91-(-100)	1	.8	.8
-81-(-90)	0	0.0	.8
-71-(-80)	1	.8	1.6
-61-(-70)	0	0.0	1.6
-51-(-60)	1	.8	2.3
-41-(-50)	5	3.9	6.2
-31-(-40)	8	6.3	12.4
-21-(-30)	9	7.2	19.4
-11-(-20)	15	18.9	31.0
-1-(-10)	13	10.2	41.1
0	12	9.3	50.4
1-10	18	14.2	64.3
11-20	18	14.1	78.3

(table continues)

Values	Frequency	Percent	Cumulative Percent
21-30	8	6.4	84.5
31-40	6	4.7	89.1
41-50	4	3.2	92.2
51-60	2	1.6	93.8
61-70	2	1.6	95.3
71-80	1	.8	96.1
81-90	5	3.9	100.0
Total	129	100.0	

Table 6

Median Categories for Forms of Supervisory Power Organized in Order of Importance

Supervisory Power	Level of Importance
Referent	Extremely
Expert	Very
Legitimate	Pretty
Reward	Important
Coercive	Fairly

Table 7

The Frequency Distribution of the Number of Times Each Social Groupings Health Advice was Ranked as Most Important

Social Group	Frequency	Percent	Cumulative Percent
Doctors	98	76.0	76.0
Family	23	17.8	93.8
Friend	6	4.7	98.5
Health-Care Workers	2	1.6	100.1
Total	129	100.1	

Table 8

Level of Compliance to Health Advice from Most Important Group

Compliance Level	Frequency	Percent	Cumulative Percent
None	1	.8	.8
Some	21	16.3	17.1
Most	58	45.0	62.1
All	49	38.0	100.0
Total	129	100.1	

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