THE RELATIONSHIP OF THE PERSONAL HEALTH CONCERNS AND THE HEALTH CARE EXPECTATIONS OF FEMALE PRISONERS TO THEIR PERCEPTIONS OF HEALTH CARE DELIVERY IN PRISON

by

Faith J. Knox, R.N., B.A.

A Thesis

Presented to
The Oregon Health Sciences University
School of Nursing
in partial fulfillment
of the requirements for the degree of
Master of Nursing

June 10, 1983

APPROVED:

[redacted]

Beverly Hoelter, R.N., D.N.Sc., Associate Professor, Thesis Advisor

[redacted]

Florence Hardesty, R.N., Ph.D., Associate Professor, First Reader

[redacted]

William Jenne, Ph.D., Associate Professor, Second Reader

[redacted]

[redacted]

Carol A. Lindeman, Ph.D., Dean, School of Nursing

Acknowledgements

I would like to thank the many people who have had a significant role in my attaining one of the most important goals of my life.

To Rue McIntosh who allowed me to enter the Women's Prison and who helped me focus on a significant nursing problem - thank you.

To Pat Tuthill, Neil Chambers and others in the Corrections Division who so graciously allowed me to investigate a politically sensitive area - thank you.

To Beverly Hoeffer, my thesis advisor, who guided me in creating "a potentially publishable" work and who has made me aware of the importance of research for nursing - thank you.

To Bill Jenne, my colleague and friend, who gave me my first glimpse of the field of corrections and who has so graciously extended his time and efforts as a member of my committee - thank you.

To Florence Hardesty, my professor, and committee member, who helped coordinate a field placement for me in corrections and guided me in the development of a role of psychiatric nurse in a prison setting - thank you.

To Patricia Tomlinson who has been a significant model for me professionally and who has graciously consented to act as Chairperson for my defense - thank you.

To Mary Ann Airth, my typist and friend, who has always been there when I needed her and her machinery - thank you.

To my father, Ian MacDonald, whose absence in my life made me intensely curious about the concept of mental illness and who probably has been thanked for very little - thank you.

To my mentor, Vernon Hansen, who made me aware of my professional purpose in life and who also made me aware that people can be imprisoned by many things - thank you.

To my children, Kris and Kate, who have given up a significant part of their childhood for me to accomplish this goal, but who have loved me in spite of my obsession - I love you.

To my husband and mate, George Knox, whose love and encouragement made the whole thing possible and without whom I could never have found my "best self" - thank you, George; I love you.

Most of all, to the Women Prisoners themselves, who were most gracious and who allowed me to enter their world of thoughts, feelings and beliefs - thank you very much.

This study was supported in part by a
Traineeship from the United States Public Health Service
Grant Number 2 ALL NU00250-05
and
Grant Number 5 T01 MH 15595-03

TABLE OF CONTENTS

LIST OF TABLES

Chapter I

Introduction

Statement of the Problem

The health care delivery in female penal settings is perceived by women prisoners to be inadequate (Shaw, 1981)and, at times, deliberately withheld from them by health care providers (Lubasch, 1977). Female inmates have expressed their dissatisfactions through class action civil-rights suits at the Federal court level in order to seek redress for the inadequate and/or unsafe health care they feel that they have received (Lubasch, 1977). Furthermore, it is generally assumed that health care delivery to women in prison is inadequate (Sobel, 1980) or withheld (Lubasch, 1977), that inmates' perceptions of their health care are accurate and that their dissatisfaction is justified (Shaw, 1981).

Satisfaction with health care, however, is a complex issue involving many variables (Roghmann, Hengst and Zastowny, 1979). Investigators who have related health care satisfaction in prison to such variables as the adequacy of the health care provided (Shaw, 1981) may have failed to account for other variables which may be operating less visibly. Expressions of patient satisfaction do not necessarily reflect efficiency or effectiveness of health care programs (Justice

and McBee, 1978). The personal health concerns and the health care expectations of female prisoners may play an important role in their perceptions of the adequacy of health care delivery.

Female inmates have expressed their dissatisfaction with health care delivery in prison. Among their complaints has been the lack of feedback related to their health conditions, including not being told the nature or purpose of injections and not being told their diagnoses (Kennedy, 1975). Other complaints have focused on the difficulty in getting prescriptions renewed, the difficulty in getting appointments with specialists such as eye doctors and having psychotropics over-prescribed (Shaw, 1981). Additionally, female inmates have complained about health care providers being put in the position of having to "write up" prisoners who break prison rules (Shaw, 1981).

Women prisoners have been dissatisfied with their health care despite the presence of day and evening nurses, physician time in proportion to the number of inmates, infirmaries, clinics, dental and podiatry programs (Kennedy, 1975). They remain dissatisfied in spite of the fact that when physicians make referrals, prisoners can be taken to general hospitals or outside practitioners (Kennedy, 1975). Health care for pregnant women is considered inadequate by female inmates even though blood pressure determination and urinalysis are done regularly and the inmate is taken to outside specialists and hospitals for pre-natal care, labor, and delivery and returned two or three days following birth of the child (Kennedy, 1975).

Women in prison have taken their dissatisfactions to court and have won redress for their complaints. A Federal court ordered improvements at the Bedford Hills state prison in New York in 1977 after deciding that there had been "interminable delays and outright denials of medical care to suffering inmates" (Lubasch, 1977). Denial of medical care to inmates is a denial of their constitutional rights (Chaisson, 1981) and courts recognize that adequate health care is a constitutional right, not a privilege. Inadequate health care is prohibited by the Bill of Rights because it is considered cruel and unusual punishment.

Health care delivery to women in prison is thought to be inadequate by non-medically oriented investigators. Shaw (1981), a sociologist, found in her descriptive study of female inmates incarcerated at the New York City's Correctional Institution for Women that although there was a scheduled sick call in the mornings, with follow-up speciality clinics in the afternoons, screening of new inmates and emergency care at night, access to routine and non-emergency care was complicated and sometimes hindered by regulations and procedures arising from the correctional setting. Shaw (1981) further found that mental health services were very narrow in scope, offering little beyond diagnosis, referrals, and medication. Research done in the field of psychology has also found inadequate delivery of health services for women in prison. Sobel (1980) surveyed fourteen women's prisons and concluded that their health services were less than those provided for male prisoners.

Although some inmate complaints about health care are undoubtedly justified, inmate's perceptions of their health care have been too uncritically accepted by researchers (Shaw, 1981) who have attempted to follow the tradition of investigators such as Kathryn Burkhart (1973). While letting women prisoners speak for themselves should be encouraged (Shaw, 1981), their criticisms need to be examined in their full context. Furthermore, their dissatisfactions need to be investigated by the people that they hold responsible for their dilemma - people in the health care professions. If health care providers to women in prison are to be effective in the delivery of health services to this population, they will need to know more specifically why inmates are dissatisfied.

Nurses in the past have not been well known for their place in prison health care (Little, 1981). Nurses are perceived by inmates to be important people in health service delivery, however. They are often considered to be the gatekeeper to the doctor's time, the medication giver, the crisis interventionist, and triage worker (Winstead-Fry, 1975). With difficulty in obtaining access to the physician often cited as a major part of the inmate's dissatisfaction (Lubasch, 1977; Shaw, 1981), nurses need to be aware of factors that contribute to or lessen the chances that inmates will be dissatisfied with their care.

Continued dissatisfaction with prison health care among female inmates has potentially serious ramifications for people working in prison health and for the inmates themselves. Failure to identify

main sources of inmate dissatisfaction with health care interferes with communications between the inmate and the health care provider. Where communication breaks down, frustration results. Frustration may serve to support the inmate's need to bring further litigation and interfere with the health care provider's willingness to listen to inmates' complaints. Continued dissatisfaction with health care among female inmates may also help to sustain this group's status as a high-risk population in that such negative emotions may have an adverse effect on their health (Shaw, 1981).

Why are female prisoners dissatisfied with the health care they receive in prison? Present research has attempted to answer this question by looking at the inmate's superficial perceptions of the health care provided; in-depth examinations of inmate's perceptions have not been done. While the argument has been made that it is necessary to <u>understand</u> the perspectives of the imprisoned female if her health needs are to be addressed in a realistic fashion (Shaw, 1981), there is nothing in the literature which helps to <u>explain</u> the inmate's perception of prison health care, either by relating those perceptions to other health variables or by probing their expectations of health care delivery.

With the increasing potential for litigation among prisoners and the increased need for prison health care providers to be accountable (Collins, 1979), prison health service staff must strive to understand why female inmates are so distressed over the health care they receive in prison. How are the personal health concerns and the

health care expectations of female prisoners related to their perceptions of health care delivery in prison?

Chapter II

Review of the Literature and Conceptual Framework

The literature to be reviewed for this study will examine the areas of health care expectations, health histories and the stress of incarceration as they relate to female inmates themselves. This will be followed by a review of the literature pertaining to the adequacy of prison health care and the withholding of available prison health services. The latter relate more to health care providers and function to give a complete picture of the problem under investigation. Since there is no specific body of literature which explains female inmates' perceptions of prison health care delivery, the review of the literature will be integrated in such a manner as to allow for the collective interpretation of findings.

The conceptual framework will be incorporated into the review of the literature and will involve six different theoretical paradigms - social learning theory, learned-helplessness model, locus of control construct, sick role concept, stressful life events theory and social exchange theory. All six paradigms are used to generate hypotheses about female inmates' perceptions of prison health care.

Health Care Expectations

Most women who come to prison arrive with histories of financial, educational and social deprivation. They come generally from

the lower class, and have been aptly labeled "society's losers" (Sarri and Figueira-McDonough, 1981). Coming from the most deprived sector of society, most are uneducated, unskilled, and unemployed. Increasingly, female inmates are coming from minority groups and are arriving in prison at a young age (Sarri and Figueira-McDonough, 1981). Prior to incarceration, these women have been among those receiving the lowest rate of health care in the country (Dutton, 1978). Additionally, many have had negative health experiences in the county or city jails where they were detained before being incarcerated in state prison systems (Moritz, 1982; Shaw, 1981). Further compounding their situation is the fact that many female inmates are lacking in health education (Shaw, 1981).

A basic principle of socio-cultural analysis is that perceptions are based on experience. Inmates judge a prison and its health services by their past and current experience (Shaw, 1981). Women who come to prison bring with them self and world concepts as well as health histories that may color their expectations of health care delivery. Taylor, Aday and Anderson (1975) have documented that non-white populations and the poor have less access to medical care than they "should" given the medically-evaluated severity of their reported symptoms. Female inmates may expect that access to medical treatment will be difficult after coming to prison especially if they have had inadequate medical care in the past.

Difficulty in obtaining access to medical care prior to incarceration can only partially account for the female inmate's

expectation that access to prison health services is difficult, however. Some of the expectations that women have of prison health care may be based on their prior experience in city and county jails. Health services of metropolitan jails have been poor in spite of the fact that many of these institutions are often close to medical resources (Petrich, 1976). In fact, the health care complaints of female inmates begin to take on a different perspective when one examines the type of correctional setting in which the woman is incarcerated. Most state prison systems have some organized mechanisms for providing medical care and emergency services to their inmates (Moritz, 1982). At the local level, however, half of the nation's jails have no medical facilities and three-fourths have no rehabilitation or therapeutic services (Moritz, 1982). In other words, a health care concept may be absent in these facilities (Kennedy, 1975). City and county jails may not employ registered nurses and female inmates may need to rely on matrons for critical care of diabetes, peripheral vascular disease and pregnancy complications (Kennedy, 1975). The prison health care expectations of female inmates may be colored by their recent past experiences in jail systems.

Underlying Theory: Social Learning Theory

According to social learning theory, it is assumed that increasing an individual's experience in a given situation will lead to the

development of specific expectations. These expectancies subsequently play a greater role in determining one's future behavior in that situation than more generalized expectancies. Rotter (1954) theorized that a person's subjective expectancies regarding probable outcomes reflect his/her past learning experiences in similar situations, i.e.,expectations are a function of the person's direct past reinforcement. Prediction in Rotter's approach requires estimating the individual's relevant expectancies and values in the psychological choice situations that confront him/her.

According to Rotter (1954), specific expectancies are easily colored by even seemingly minor alterations in the individual's situation whereas generalized expectancies are assumed to be more consistent and stable across situations. It is entirely possible that female inmates have specific expectancies about health care access and delivery that they have developed throughout their pre-prison and in-jail careers which are easily colored after coming to prison. The previous lack of health care and difficulty with access to health services may be so reinforced for the female inmate that when she comes to prison she is unusually sensitive to health care matters. Female inmates may also have very stable generalized expectancies about health care that have developed throughout their previous deprivation. It is possible that these expectancies may not be influenced by even the most positive health care setting.

Further complicating the issue of health care expectations is the finding that lower-class people are usually quite aware that they

are at the bottom of the socio-economic ladder and that this fact is not likely to change (Kephart, 1977). Furthermore, people from the more deprived sectors of society tend to be fatalists - feeling that they do not have much control over what happens to them (Kephart, 1977). If female inmates have had difficulty in obtaining needed medical care in the past, they may perceive that their behaviors have had little or no effect in bringing about needed health services. They may further perceive that they are presently unable to perform behaviors which will bring about needed health care in prison.

Underlying Theory: Learned-Helpnessness Model

The learned-helplessness model is a cognitive view of learning developed by Seligman (1974). In this approach, the individual learns to construe the relationship between activity and outcome such that he/she believes that all efforts to bring about the desired outcome are in vain. Based on laboratory experiments in which dogs received painful electric shocks in two different situations, Seligman's model has been most applied to learning theories of depression. The experiments involved administering painful, inescapable, electric shocks to dogs and then comparing them in a second situation to dogs who had not had this kind of experience. In the second situation, all the dogs had the capacity for escaping electrical shocks; however there were significant differences in the behaviors of the two groups.

The animals who had not had the earlier experience of painful, inescapable shocks became quite upset when they received the first

few shocks, but fairly soon thereafter learned to run when they saw or heard the stimulus signaling an impending shock. The animals who had had the earlier experience with inescapable shock behaved by giving up and passively accepting the painful stimulation. These experiments have been interpreted to imply that animals can acquire a sense of helplessness.

The etiology of the learned helplessness in animals is considered to be uncontrollable stress - not stress per se, but learning that no response reliably reduces aversive stimulation. When applied to depression in humans, however, the etiology is considered to be the inability to control events in life and the failure to act either to relieve suffering or to gain gratification. Learned-helplessness may be operating in the fatalistic expectations of lower class people. Furthermore, it may play a major role in the belief of women prisoners that they are unable to bring about adequate access to medical care particularly if they have had prior difficulty in obtaining access to health services. In her research, Murphy (1982) found support for the idea that a series of negative events leads to helpless behavior.

The educational backgrounds of many women in prison may also play a role in the quality of the health care expectations held by female inmates, even though a small number of inmates are quite sophisticated about health care (Winstead-Fry, 1975). Most women prisoners are lacking in health education and have an inadequate framework for judging the seriousness of their distress (Shaw, 1981).

Furthermore, many inmates have little concept of what adequate health care could mean in the treatment of their total health picture and do not seek or use health services unless directed to do so (Winstead-Fry, 1975). Additionally, many inmates perceive health to be a state of comfort (Winstead-Fry, 1975); whether one has sound health and good health habits is not relevant. Expectations of health care delivery arising from the lack of health knowledge may tend to be quite unrealistic. Doctors and/or nurses who cannot solve problems immediately may become suspect. The psychosocial support most people receive through seeking a doctor's help (Roghmann et al., 1979) may be unrecognized by the inmate who has a long history of feeling unsupported.

Underlying Theory: Locus of Control Construct

Rotter (1954) hypothesized that the likelihood of a person's engaging in a given act is a function of two variables: 1-) the person's expectancy that his/her behavior will bring the rewards available in a situation, and 2-) the personal values of these rewards for the individual. The locus-of-control dimension represents the expectancy part of Rotter's theory - the relationship between the behavior and its outcomes.

Locus-of-control represents the extent to which individuals believe that they have personal control over what happens to them - that control is located within them rather than outside. The more internally oriented people are, the more they believe that events

occur as a consequence of their personal actions and are under their personal control. The more externally oriented individuals are, the more they believe that events are unrelated to their personal behavior and that outcomes are determined by powerful others, chance, or fate.

Almost all studies investigating internal - external locus of control in prison samples have been done with male prisoners. Most of these studies have found inmates to be externally-oriented (Griffith, Pennington-Averett & Bryan, 1981). The only study conducted that addresses locus of control in women prisoners fails to address whether women in prison tend to be more externally oriented than internally oriented and concentrates on whether the relationships between locus of control, ethnicity and length of imprisonment found in male prisoners are demonstrable in female prisoners (Griffith, Pennington-Averett & Bryan, 1981).

One might assume that female inmates would be more externally-controlled than internally-controlled due to certain demographic characteristics of female inmates and other findings related to the internal-external expectancy dimension. Since most female inmates come from the lower class (Sarri and Figueira-McDonough, 1981), almost half are black (Guze, 1976) and nearly three-fourths have not finished high school (Guze, 1976; Sarri and Figueira-McDonough, 1981), the assumption that women prisoners are more externally-controlled would be based on the findings that blacks in the United States have demonstrated greater externality, that lower-class people

are more externally-oriented and that an internal orientation tends to be associated with success in school (Gergen, 1974).

If one assumes that female inmates are externally-oriented, then perhaps female inmates place substantial external expectancy in the ability of powerful others (i.e. doctors and nurses) to solve their health issues. The female inmate may give the health care team the responsibility of making her feel comfortable instead of taking responsibility for her own health habits and condition. The expectations of what health professionals can do to help the inmate may be glorified through her external locus-of-control orientation and then further magnified through the lack of pertinent health information.

Health Histories of Female Offenders

Further compounding the expectation of women prisoners that their health care is not serving their needs is the degree to which this population is at high risk for physical and mental health problems. Shanock and Lewis (1981) found that incarcerated girls had significantly more adverse medical histories than either non-delinquent girls or delinquent girls who were not incarcerated. In their study of ninety-five women prisoners who participated in an investigation of medical and psychiatric correlates of violent behavior, Climent, Rollins, Erwin and Plutchik (1973) found the incidence of medical disorders among their sample to be disproportionately high for major infectious diseases (42.3%), minor

infectious diseases (59.6%), head injuries (75.6%) and problems other than gynecological which required surgical intervention (81.6%).

Emotional and psychiatric problems present as serious a threat to the female inmate as physical problems, however. While the entire range of psychopathology is represented among female prisoners, especially prominent are the number of inmates with borderline personalities, severe characterological difficulties, depressions and anxieties (Ackerman, 1972; Dimick, 1979). The physical and mental conditions are further exacerbated by the large scale use of alcohol and drugs among this population (Vejnoska, 1981). In the same study in which Climent et al. (1973) found a high incidence of medical disorders among women prisoners, they found equally compelling evidence for certain adverse psychodynamic events in the lives of the female inmates. Such events included child abuse and loss of parents at an early age.

The emotionally ill female offender is not always on a forensic unit of a hospital and even if she is, the chances are high (88%) that she has been previously institutionalized at least once at either a penal or psychiatric facility (Baridon and Rosner, 1981). Recidivism appears to be more common among mentally ill female offenders. Cloninger and Guze (1973) found recidivism to be significantly related to psychiatric diagnosis as well as six other variables. They further found in a longitudinal study of female criminals that marked parental psychopathology and severe personal disturbance in all areas of life were characteristic of this

population (Cloninger and Guze, 1973). It has also been hypothesized that manic-depressive states are underdiagnosed in prison populations, particularly among female prisoners (Good, 1978).

When female inmates have expressed their complaints of prison health care delivery, they have focused predominantly on medical care, rather than psychiatric care (Kennedy, 1975; Shaw, 1981). Nevertheless, most researchers consider mental health services for women prisoners to be as inadequate, if not more inadequate, than medical services. There is a lack of psychiatric and/or psychological services for female inmates in the United States according to Shaw (1981) and Sobel (1980). The focus of health care complaints on the part of the female inmate on predominantly physical issues and her threats of litigation related predominantly to medical aspects of care is puzzling in view of the almost total absence of psychiatric-psychological care.

The perception of one's health status often plays a role in one's satisfaction with health care delivery (Tessler and Mechanic, 1978). In their study of five samples, one of which were prison inmates, Tessler and Mechanic (1978) found that only 57% of the inmates perceived their physical health to be either excellent or good as compared to 87%, 87%, 73% and 72% for the other four samples. While this study included a sample of male inmates, some of their conclusions are noteworthy. Tessler and Mechanic (1978) found that patients experience physical symptoms and dysfunctions in a more global manner than traditional medical conceptions would suggest.

Particularly when patients are under psychological stress, they respond to their total sense of well being in physical terms. As documented by this study, physical health status has a larger influence on perceived health status than psychological distress. In spite of the severity of both physical health problems and mental health problems of female inmates, the evidence shows that physical health problems are the focus of their attention regardless of the magnitude of their psychological distress.

Underlying Theory: Sick Role Concept

Sick role is a concept that denotes a social role. Since illness is a social state (Myles, 1978), as well as a physical and mental state, the social dimension of the inmate's functioning cannot be minimized. In the sick role, the ill person cannot fulfill normal role expectations and consequently is disruptive to the social system (Parsons, 1951). Society, however, offers the sick person the option of new role expectations as long as he/she engages in helpseeking and cooperates in treatment (Parsons, 1951). The quality of the sick person's helpseeking and cooperation in treatment determines how well he/she compensates for his/her deviance. There is, however, a difference between the medical sick role and the psychiatric sick role (Segall, 1976). In the case of a physical problem, the situation is relatively clear. Something is wrong with the individual's physical functioning for which he/she is not responsible and

which is beyond his/her control. When the condition also has psychological connotations, however, the question of personal responsibility arises (Segall, 1976).

In one of his classic works, Goffman (1961) described prisons as "total institutions" in which there is a systematic manipulation of the person's self-identify and social reconstruction of the self which makes one an inmate. This process is done in order to standardize the inmate and make him/her de-individualized. When a person becomes institutionalized in this model, he/she has no choice but to play the role of the sick person. Whether or not the individual is really sick becomes irrelevant; what is significant is that inmates inevitably come to believe that they are sick and to behave accordingly (Myles, 1978).

The Impact of the Stress of Incarceration

The stresses of incarceration have been found to compound both physical and mental health problems among incarcerated women (Giallombardo, 1966; Sobel, 1980). Sobel (1980) speculated that the psychosocial stress of prison existence for women may play a role in disorders with psychosomatic roots. She suggests that many women incarcerated in institutions develop physical symptoms as an indicator of their emotional distress, since they cannot express their conflicts in other more constructive ways (Sobel, 1980). The relationships of psychological disability and stress to medical problems is a complex one not well recognized by the female inmate, particularly as

she presents her problems to the medical department. Her lack of recognition of this complex interplay may play a role in her dissatisfaction with medical care.

When a patient seeks a doctor's help, the physician tries to identify specific problems or diseases responsible for the reported symptoms. Frequently, physicians are unable to locate a specific cause of the patient's complaints and may attribute the patient's distress to other non-medical phenomena (Tessler and Mechanic, 1978). Physicans have been trained to identify discrete problems that can be managed in specific ways. Complaints that cannot be identified and managed may frustrate the patient because he/she views his/her health status in a more global fashion (Tessler and Mechanic, 1978). Not having the physician's more detailed perspective of disease processes, the patient reacts more experientially to his/her overall sense of well-being. The discordance in perspective between the physician and patient may result in patient dissatisfaction (Tessler and Mechanic, 1978).

Underlying Theory: Stressful Life Events Theory

During the last decade, investigators have shown that recent life histories of hospitalized persons contain significantly more frequent and serious stressful events than do histories of matched controls from the general population. Much of this research was made possible through the development of the Social Readjustment Rating Scale by Holmes and Rahe (1967). This instrument was designed to

measure common life changes that could be stressful. It was assumed by Holmes and Rahe (1967) that any life change, a positive one as well as a negative one, is capable of increasing the risk of illness depending on its power to require major social readjustments.

A recent critique of life events scaling has raised some significant questions, however (Miller, 1981): What life events are identifiable and ratable? Is the list complete? During what time frame have the life events provided intense stress? Are there mediating variables that have not been considered? Miller (1981) states that the contents of the life events scales may merely represent a plateau in a process at a point when the individual gives up, having lost control and being unable to maintain an internal locus of control, or the person may be experiencing system failure in coping with stressful life events. He further states that researchers must address this issue and the measures they use must be designed to assess and differentiate this critical variable.

There is no doubt that prison inmates undergo a difficult personal adjustment during imprisonment and that much of this adjustment stems from stressful life changes. Major social readjustment is thought to be particularly stressful for women prisoners (Ward & Kassebaum, 1965). The stresses of incarceration for women have been found to be related to the psychological distress caused by separation from families and loss of role and responsibility within the family and society (Adler, 1975 and Giallombardo, 1966). In their classic studies, Giallombardo (1966) and Ward & Kassebaum (1965)

found that women prisoners suffer intensely from separation from families and disruption of familial roles and that for this reason, some kind of adaptation is imperative. In her classic work, Adler (1975) found that the stress of imprisonment was reflected in the psychological functioning of the inmate who tended to drift into narcissistic and primitive modes of coping.

The adaptation that is required of female inmates may take its form in physical illness, however. There appears to be a very high incidence of gynecological problems (Sobel, 1980), headaches (Sobel, 1980), and skin disorders (Shaw, 1981), all of which may have their origins in the stresses created by imprisonment. Gynecological problems are thought to be related to the psycho-sexual deprivation experienced by women in prison (Sobel, 1980) and headaches among prisoners are thought to support the theory that headaches stem from suppressed anger and guilt (Loewenstein, 1977). Skin eruptions, rashes and itching may be symbolic representations of internal conflict (Grossbart, 1982).

It would appear that inmates believe that the physical health risks of imprisonment are greater than the psychological risks. When female inmates have voiced their fears and complaints about prison life in terms of their well-being, they have focused on physical stressors such as exposure to contagious disease, cold, prison sanitation and food preparation (Shaw, 1981). Female inmates have often blamed the physical environment rather than the emotional environment

of prison for many of their problems (Shaw, 1981). While psychological adaptation to prison does occur for female inmates (Giallombardo, 1966), it appears that problems of physical adaptation play a more prominent role as far as inmates are concerned.

The Issue of Adequacy of Health Care

A discrepancy exists in the literature regarding the actual adequacy of health care delivery to women in prison from the professional point of view. Sociologists publishing as recently as 1981 and psychologists publishing in 1980 have found the medical and psychiatric care of women prisoners to be generally inadequate. Nurses, on the other hand, have expressed a different opinion of health care delivery to female inmates, even when discussing the same institution. Furthermore, the lack of medical perspective on the part of sociologists and psychologists investigating this field suggests that their findings should be viewed with skepticism.

When Shaw (1981) investigated the New York City's Correctional Institution for Women, she found that access to routine and non-emergencycare was complicated and sometimes hindered by regulations and procedures arising from the correctional setting. Considering the unique factors which bear on the delivery of health services in a penal setting (Brutsche, 1975), this is not surprising. Brutsche (1975), a physician who has been Assistant Surgeon General, U.S. Public Health Service and Medical Director, U.S. Bureau of Prisons, has stated that among the problems in the delivery of prison health

services is the penal environment as it interacts with the attitudes and behavior of a very large segment of an inmate population. This interaction tends to work against a satisfactory interface between the offender and the health services delivery system (Brutsche, 1975).

When nurses have examined the health services of New York City's Correctional Institution for Women, a very different picture of health care delivery has emerged. Murtha (1975) states that health services are given on a 7-day-week, 24-hour-a-day basis. They include receiving room procedures, an initial history and physical examination by a physician or physician associate, daily sick call screening by a registered nurse, part-time psychiatric service and around-the-clock general nursing-mental health services (Murtha, 1975). Nurses in this institution have expanded their role to include that of case-finder, counselor, group therapist, suicidologist and primary care taker (Murtha, 1975).

Sobel (1980), in her survey of fourteen women's prisons, attempted to demonstrate that women have less adequate health care than men in prison. With no statistics reported on men's prisons, however, it is difficult to ascertain how Sobel (1980) came to her conclusion that health care providers in women's prisons are not as well trained or as available as they are to male inmates. Research done by non-medically oriented investigators has left too many unanswered questions related to the alleged inadequacy of prison health care for women.

Withholding of Available Health Services

It follows that if health care in female penal settings is, in fact, adequate and yet inmates perceive that they are not receiving adequate health care, then perhaps they also perceive that adequate health care is being deliberately withheld. This would appear to have been the case when inmates presented their dilemma to a United States Court of Appeals in New York (Lubasch, 1977). When inmates of Bedford Hills, New York, State Prison pleaded their case to Judges Kaufman, Gurflin and Meskill, the judges' unanimous response was, "all too often an inmate in need of treatment has been denied access to medical help by arbitrary procedures and misadministration so gross that it must be deemed wilfull" (New York Times, Nov. 1, 1977; Pg. 73, Col. 1). While it seems quite likely that some inmates have been deliberately denied health care, to what extent could such experiences account for such widespread dissatisfaction with prison health care delivery?

The notion that adequate health care is being withheld from the inmate may stem from several sources. First, the tendency to feel victimized is common among this group (Brutsche, 1975). Secondly, inmates are not incarcerated for the purpose of improving their health (Little, 1981) and they may view the entire prison system, its health care included, as fulfilling its punitive role. Thirdly, female inmates have demonstrated their belief that commodities can be withheld in prison (Shaw, 1981). An important aspect of prisoners'

food notions is their belief that they are being cheated out of good food that might be available (Shaw, 1981). More than commodities, however, women inmates have felt cheated out of that to which they are most basically entitled - their newborn infants. When women have expressed their complaints about pre-natal health care in prison and delivery of their infants, they have focused on the fact that they must return to prison without their babies (Kennedy, 1975; Sobel, 1980).

Underlying Theory: Social Exchange Theory

One of the questions raised by the demand for "adequate" health care by female prisoners is whether inmates feel that they deserve a just return for their stay in prison. In giving up their freedom, inmates may feel that they are entitled to "something" that the prison systems do not presently provide. Giallombardo (1966), in her classic study of women's prisons, found that women incarcerated at Alderson Federal Prison felt that Uncle Sam owed them "something" for their imprisonment. Social exchange theory may help to explain such feelings.

Social exchange theory is based on the assumption that a similarity exists between the process through which individuals evaluate their social relationships and economic transactions in the market. Social relationships can be viewed as exchange processes in which individuals make contributions (inputs) for which they expect certain outcomes (Mowday, 1979). Individuals are assumed to have

expectations about the outcomes that should result when they contribute their time and resources in interaction with others. Inmates make heavy contributions by coming to prison. Women, particularly, give up children, familial roles, and traditional statuses of what women are supposed to be like (Adler, 1975). This kind of input may generate expectations of a heavy return, and this return may be focused on the health services department. An underlying theme may be: For as much as I have contributed (suffered), I deserve to have my suffering alleviated now that I am in prison.

A second assumption of social exchange theory concerns the process through which individuals decide whether or not a particular exchange is satisfactory (Mowday, 1979). Most exchange theories assign a central role to social comparison processes in terms of how individuals evaluate exchange relationships. Information gained through interaction with others is used to determine whether an exchange has been advantageous. Inmates have awareness that adequate health care is a constitutional right and that prisons, by law, must provide a standard of health care comparable to that which is provided in the community in which the correctional facility is located (Moritz, 1982). They may compare the health care that they perceive to be getting in prison with the health care that they perceive to be provided in the outside community. If the inmate perceives that her contributions (inputs) have been greater than her female cohort on the outside, and her outcome less, she will realize the inequity of the situation and will be dissatisfied (Mowday,

1979). Inequity does not necessarily exist if a person has high inputs and low outcomes as long as the comparison other has a similar ratio (Adams, 1965). Central to the theory of social exchange is the assumption that a major share of motivated behavior is based on the perceived situation and not necessarily on the actual set of circumstances (Adams, 1965).

Summary

Review of the literature on female inmate health status and on female health care in prison reveals several important factors. First, the world and health experiences of this population are dominated by chronic deprivation. This factor may account for the severity of physical and mental disorders existing in this population. Secondly, as women take on the role of prison inmate, they encounter stresses that can compound their physical and mental health problems. Thirdly, female inmates' expectations of health care in prison may be affected by a complex interplay between their past deprivation, the present severity of their health problems and the stress of incarceration as it impacts on their perceived health status. While health issues have become a prominent concern of female inmates, the true adequacy of health care to women in prison seems presently undetermined; what stands out is that there is widespread dissatisfaction among female inmates with their health care. Part of inmates' dissatisfaction with health care may be their belief that adequate health care is being purposely withheld.

Presently, there is no body of literature which helps to explain female inmates' dissatisfaction with health care in prison. There are many complaints expressed which have overtones of resentment (Kennedy, 1975; Shaw, 1981). Perhaps this resentment is not over health care as it presently exists, but is projected onto health services delivery for other reasons having to do with health ideas held by the inmate. Since many women in prison have serious medical and psychological problems which they feel are not being adequately addressed, it is important to ascertain the level, focus and etiology of their distress from their point of view. It is also important to determine when their distress began and their expectations of how it should be handled in prison. Moreover, it is central to the purpose of this study to ascertain whether or not inmates perceive that adequate health care is being withheld from them, as this could play a major role in their perceptions of prison health services. This study proposes to determine if there are underlying reasons, not previously addressed, for female inmates' dissatisfaction with their health care. More specifically, it is intended to determine whether personal health concerns and the health care expectations held by the inmate play a role in her perceptions of health services delivery.

Assumptions

For the purpose of this study, it was assumed that inmates reported their feelings honestly since health care delivery has become of paramount importance to this population.

Hypotheses

To test the relationship of the personal health concerns and the health care expectations of female prisoners to their perceptions of health care delivery in prison, the following research hypotheses were proposed.

To test the application of social learning theory:

1-) Inmates who perceive that their access to medical care in prison is more difficult than their access to medical care before imprisonment will be more dissatisfied with prison health care delivery.

2-) Inmates who indicate that their physical health problems began in jail will report more severe physical health problems.

To test the application of learned-helplessness model:

3-) Inmates who perceive that they have no influence on access to medical care in prison will be more dissatisfied with prison health care delivery.

To test the application of locus-of-control construct:

4-) Inmates who are more internally-controlled in regards to health will be more satisfied with prison health care delivery.

5-) Inmates who are more externally-controlled in terms of powerful others will have less realistic expectations of health care providers.

To test the application of sick role concept:

6-) Inmates who are more externally-controlled in terms of powerful others will report more physical problems.

To test the application of stressful life events theory:

7-) Inmates who perceive prison as more stressful will report more severe physical problems.

To test the application of social exchange theory:

8-) Inmates who perceive that they have less medical care than their cohorts on the outside will be more dissatisfied with prison health care delivery.

9-) Inmates who feel that they have suffered greatly by coming to prison will report that they have been denied available medical care more often than inmates who feel they have suffered less.

Definitions

Inmate is a female prisoner incarcerated in a state penal institution.

Incarceration is imprisonment in a state penal institution.

Stress of incarceration relates to the loss of freedom, restricted physical movement, restricted decision-making and/or choices and the imposition of rules governing behavior, all within the institutional setting.

Suffering relates to the loss of possessions, friends, family members and roles within society - all things left behind in the "outside" world.

Health concerns are the personal health care histories of the inmates combined with their present assessment of their physical and mental health.

Health care expectations are the perceptions the inmates hold regarding how their health problems should be handled by the prison health care team.

Health problems are any perceived distress, physical and mental, experienced by the inmate, excluding dental problems.

Health care delivery is 1-) the accessibility of health care; 2-) the health teams' ability to relieve health problems and 3-) the amount of health care provided.

Medical care is that care provided by the prison nurses and doctors who do not provide psychiatric service. It includes referrals by the medical doctor to outside specialists and practitioners.

Psychiatric care is that care provided by the prison psychiatrist, psychologists, social workers and mental health therapists of any type.

Prison relates to those federal or state penal institutions housing primarily convicted felons serving sentences of more than one year.

Jail is a term used to denote locally administered institutions holding individuals awaiting adjudication or serving sentences of one year or less.

Sentence is a term used to denote the judicial determination of the type and length of punishment a person receives when he/she has been convicted of a crime.

Lower class is a term used to denote unskilled and semi-skilled workers of little formal education.

Limitations and Delimitations

A major limitation of this study is that, given available data, it is not possible to determine whether the health views of female inmates are a reflection of their incarceration or of their social class status.

The delimitation of this study is that generalization can be made only to state female penal facilities which have health services similar to the research setting. The delimitation is created by the fact that many city and county jail systems have poor or absent health care services (Kennedy, 1975; Moritz, 1982; Shaw, 1981). Generalization cannot be made to male penal facilities because the sex variable has been found to be a factor in both the criminality and imprisonment of people (Adler, 1975; Giallombardo, 1966 and Ward & Kassebaum, 1965).

Chapter III

Methods

Design of the Study

The purpose of this study was to determine why female inmates are dissatisfied with their health care. Since descriptive studies had focused on the health care complaints of this population, an exploratory , correlational study was considered appropriate in order to gain a better understanding of the complex behavior patterns noted. The study investigated the relationship of the personal health concerns and health care expectations of female inmates to their perceptions of health care delivery in prison.

Subjects

The entire inmate population of a small state penal institution for women located in the Pacific Northwest was interviewed and given written test materials. Inmates having left this facility but still at a release center were not included, even though they used the prison medical facilities. Use of the entire population, which generally ranged between 70 and 80 women, avoided problems in sampling. Of the 75 inmates in the facility at the time the study was initiated, four refused to participate and 13 were released during the five weeks of data collection; thus the total sample was 58.

Ages of subjects ranged from 18 to 47 with 29 being the mean age. Seventy-one percent were white, 22% were black and 7% were American Indian. Forty-five percent were from the lower class, 41% were from the working class and 14% were from the lower middle class. No subjects were found in classes higher than the lower middle class. The mean educational level was 10.8 years. Sixty-five percent of the women had been incarcerated for twelve months or less; 17% had been incarcerated between thirteen and twenty-four months and 18% had been incarcerated for 31 months or longer. The mean length of sentence remaining to be served was slightly less than one year.

All inmates listed in the prison registry on June 28, 1982 comprised the sample. Inmates parolled out or put on terminal leave after that date, but returned to prison on a violation before the interview, were excluded. Inmates had to have been in the institution for a period of fourteen days before an interview was scheduled (i.e. those inmates committed on June 28, 1982 were not interviewed until at least July 13, 1982). The rationale was that the State has up to fourteen days to do a complete physical examination of the inmate, who may not have had any other intensive exposure to the prison health services before this time.

Setting

The health services of the facility are under the direction of the Prison Superintendent who has delegated the responsibility of health care delivery to a Clinical Services Coordinator. Health ser-

vices in this prison are kept updated in current matters related to Correctional Health Care by the frequent attendance of health care providers at local, state, and national conferences on Correctional Health Care.

This penal institution operates a clinic that is open from 7:30 a.m. to 9:00 p.m. Monday through Friday. Week-end and holiday hours are from 9:00 a.m. to 1:00 p.m. and 5:00 p.m. to 9:00 p.m. During these hours, at least one registered nurse is on duty. From 9:00 p.m. to 7:30 a.m., no registered nurse is in the institution; however, one is always on call. Correctional officers may call her, and she may authorize the telephoning of an ambulance for the inmate to be taken to a hospital if this is needed. There is no infirmary because there are fewer than 100 inmates.

The prison also employs a medical physician three hours per week who performs all medical evaluations of inmates including a complete physical within two weeks of admission to the facility. He, or a physician appointed by him, is always on call for the institution. Inmates requiring emergency medical care can, at any time, be taken to a local hospital. The institution has an Emergency Box supplied similar to a Crash Cart in a General Hospital. It contains intravenous and intramuscular injectables sufficient for resuscitation of cardiac or respiratory arrest.

There is a small pharmacy within the clinic setting and any medications that are needed but not contained within the pharmacy may be obtained within approximately a half-hour. Inmates requiring blood

work have their blood drawn at the clinic, either by a registered nurse or a phlebotomist from a local laboratory. The clinic is equipped with a high-powered microscope for testing of certain slide materials, but all other tests, X-rays, and diagnostic procedures are referred to outside specialists, as are medical problems not within the expertise of the prison physician.

The mental health services are divided between Clinical Services and Social Services. The psychiatrist works directly out of Clinical Services two hours per week. Two psychologists are administratively under Clinical Services but work out of the Social Service Department for a total of 24 hours per month. A psychiatric social worker and mental health therapist work out of Social Service for a variable number of hours every week. A complete psychological assessment is done on each inmate by a Ph.D psychologist at approximately one month or sooner following commitment.

Data Collection Methods

Instruments. There were two instruments used in this study: 1-) A questionnaire entitled "The Prison Health Interview" constructed by this researcher and 2-) the "Multidimensional Health Locus of Control Scales" developed by Wallston & Wallston (1978).

The "Prison Health Interview"

The "Prison Health Interview", (Appendix A), designed to elicit information related to the research hypotheses provided primarily

nominal and ordinal data. It was pretested in a pilot study with female inmates housed in a county jail in order to establish its face validity. The health services in this jail are contracted similarly to the way in which health services are contracted at the research facility. The instrument was judged as adequate by two inmates and their suggestions were incorporated in subsequent revisions of the instrument.

The Prison Health Interview included two questions which involved having the responses rated by a panel of four physicians and two nurses. Questions 12 and 13 asked the subject to report her expectations of health care providers relevant to the health problems she reported in questions 2 and 5. These expectations were evaluated by either a physician or a nurse whose speciality dealt with the problem reported. The rating system used to evaluate the responses reflecting the expectations that subjects had of health care providers generated ordinal data. The scoring system was as follows:

Inappropriate response:	0
Unrealistic response:	1
Somewhat realistic response:	2
Very Realistic response:	3

An inappropriate response was one which did not relate to the problem or was so general that applicability to the problem was difficult to determine. An unrealistic response was related to the problem but did not represent a solution that was within the power of the health care professional to provide. A somewhat realistic response was within the power of the health care professional to

provide but represented a solution not typically done for the problem under question. A very realistic response was both within the power of the health care professional to provide and represented a solution that is typically done for the problem under question.

The "Multidimensional Health Locus of Control Scales"

The "Multidimensional Health Locus of Control Scales" developed by Wallston & Wallston (1978) are two sets of scales (Appendix B) developed for the purpose of determining whether a person's source of reinforcements for health-related behaviors is primarily internal, under the control of powerful others, or a matter of chance. These scales are based on earlier work with a general Health Locus of Control scale (Wallston et al., 1976) which was developed from Rotter's social learning theory.

The original Health Locus of Control (HLC) scale was developed by Wallston et al (1976) as a unidimensional measure of people's beliefs that their health is or is not determined by their behavior. At the high end of the scale were the "health-externals" and at the low end were the "health-internals." The HLC scale was designed to yield a single score; the higher the score, the more external the locus of control was considered to be. Questioning the conceptualization of locus of control as a unidimensional construct, however, Levenson (1975) argued that internal beliefs were actually orthogonal to external beliefs and that prediction could be further improved by studying fate and chance expectations separately from

external control by powerful others. From this multidimensional approach to locus of control, the Multidimensional Health Locus of Control Scales (MHLC) were created. Each set of scales has three subscales; internal health locus of control (IHLC), powerful-others health locus of control (PHLC) and chance health locus of control (CHLC). A separate score is obtained for each subscale. Scoring instructions for the MHLC scales are as follows:

Internal items:	1, 6, 8, 12, 13, 17
Chance Items:	2, 4, 9, 11, 15, 16
Powerful Others Items:	3, 5, 7, 10, 14, 18

The score on each subscale is the sum of the values circled for each item in that subscale.

Alpha reliabilities for the MHLC scales range from .67 to .77 when each six-item form is used alone. When Forms A and B are combined, however, allowing 12-item scales, the alpha reliabilities increase and range from .83 to .86. The major factor contributing to low internal consistency in the general Health Locus of Control scale - combining internal and external statements in the same measure - has been eliminated. As an initial indication of predictive validity, correlations have been computed between health status and the MHLC scores. As Wallston & Wallston (1978) expected, health status correlates positively with internal health locus-of-control ($r = .403$, $p \leq .001$), negatively with chance externality ($r = -.275$, $p \leq .01$), and did not correlate with powerful others ($r = -.055$).

While the two forms of the scales can be combined, only Form A was used in this study. This choice was based primarily on the

population being studied and was consistent with guidelines set forth by the authors. The MHLC scales are intended for use with adults and most persons with an eighth grade reading level should be capable of understanding and responding to the items. Wallston & Wallston (1978) state that one should not expect that MHLC scale scores alone to explain much of the obtained variance in health behaviors. Only in interaction with one, or preferably several, of a multitude of contributing factors will beliefs in the locus of control of health play a significant role in the explanation of health behavior. It was in keeping with this philosophy that this research study was designed.

Demographic Variables

The demographic data collected in this study included age, ethnic background, level of education at time of incarceration, level of health education, type of occupation held before coming to prison, type of facility detained in before incarceration in the state prison, and length of prison sentence already served as well as length of sentence remaining. All data were collected from inmates' verbal reports.

In order to determine the social class of subjects, the criteria used by Miller and Mishler (1959) in their New Haven study was modified to take into account the fact that all subjects resided in prison. In their classic study, Miller and Mishler determined class position by use of an "Index of Social Position" that weighted the

social rank of the subject's 1-) area of residence; 2-) occupation; and 3-) education. The weights used in the formula to distinguish between classes were chosen specifically for their study and were not derived from theory or other research. Occupation was considered by Miller and Mishler (1959) to be the best indicator of social class; and they assigned almost as much weight to it as to the other two scores combined.

Demographic data collected on inmates in this study included occupation and educational level at the time they were sent to jail. Residence was not considered a variable as all subjects at this point resided in either city or county jails. Classes were defined as follows (Miller & Mishler, 1959):

1-) Upper class: "Old" and "new" families who come from the most exclusive residential areas and whose family head is a college graduate employed either as an executive of a large firm or a professional.

2-) Upper middle class: College-educated people who are members of managerial and professional groups.

3-) Lower middle class: Either salaried white collar workers or owners of small business, semi-professionals, foremen or skilled workers.

4-) Working class: Predominantly blue-collar workers, however approximately a tenth are white collar workers. The overall educational level is much lower than the lower middle class.

5-) Lower class: Unskilled and semi-skilled workers of low education. Predominantly day laborers, the erratically employed and the chronically unemployed.

Each subject's social class standing was determined by the investigator's interpretation of the combined occupation and educational

levels of subjects according to the aforementioned criteria. No system of weighting variables was used.

Procedures

Permission to obtain access to the inmate population was received from the Corrections Division (Appendix C; Appendix D). Between June 28, 1982 and August 10, 1982, the aforementioned data were collected in the following manner. First, an informed consent (Appendix E) was read aloud by the investigator as the inmate followed along. If the inmate agreed to participate in this study, her signature was obtained. Secondly, the demographic data were collected from the inmate herself. She was asked by the investigator to report her age, ethnic background, how much education she had when she went to jail, how much health education she had accumulated, her occupation before incarceration, the type of facility she had been in before coming to the State Prison and the status of her prison sentence in terms of time served and time remaining to be served. Thirdly, the "Prison Health Interview" was given to the inmate to follow while the investigator read aloud all of the questions on the investigator's copy of the Prison Health Interview. The investigator recorded the inmate's responses on her own Prison Health Interview form. The rationale for going over the consent and interview forms stemmed from the fact that only three out of ten female prisoners have finished high school (Sarri and Figueira-McDonough, 1981). Last, the "Multidimensional Health Locus of Control Scale - Form A"

was administered. The investigator orally reviewed the instructions with the inmate and answered specific questions the inmate had related to the scales but did not orally review each scale-item with her. It was assumed that the choice of Form A would eliminate most ambiguities for the subject. The entire procedure from informed consent to completion of the MHLC Scales took approximately one hour per subject.

In order to control for extraneous variables, the following procedures were implemented: 1-) Operational definitions of any of the terms used in the "Prison Health Interview" were given to the inmate upon her request as long as they had been operationally defined in this study; 2-) All interviews and questionnaires were completed in the privacy of the physician's office during hours that he was not using this space; 3-) All interviews and questionnaires were completed during normal operating hours of the clinic; 4-) The term "health" was further reduced to "physical health" and "mental health" in order to control for ambiguities that might arise over the definition of "health."

Description of the Variables

Since this was a correlational design, the degree of association between personal health concerns and health care expectations and female prisoners' perceptions of health care delivery in prison were being measured. Appendix F is a table containing the complete description of each variable and how each was measured.

Data Analysis

All hypotheses except 2 and 3 were analyzed using Pearson's *r* correlation coefficient. Hypotheses 2 and 3 were analyzed using Chi Square. The Pearson product-moment correlation procedure was conducted with all variables measured with interval data. It was also used in place of Spearman's Rho or Kendall's Tau with variables measured with ordinal data due to its adaptability in examining attitudinal measures and in order to integrate the findings of each hypotheses with the others. Chi Square was conducted on hypotheses 2 and 3 due to the fact that the independent variables were measured with nominal data. Significance levels were set at $\leq .05$.

Protection of Human Rights

In order to protect the rights of subjects in this study and of the personnel working in the setting in which the study was conducted, no identifying data were included on any of the materials. Any discomforts the subjects may have experienced from answering personal questions were to be addressed by setting up appointments with professional mental health staff. Any increased concerns over physical health that subjects might experience were to be addressed by setting up appointments with the medical doctor. The investigator in this study was supportive during all interview and questionnaire procedures and the subject could terminate interviews or questionnaires at any time. All interviews and questionnaire forms were

coded and kept confidential. Consent forms were kept separate from interview and questionnaire forms. All forms were kept in a locked file. Appendix G clarifies all initial questions related to the protection of human subjects.

Chapter IV

Results

Included in this chapter is a presentation of the results of this study as well as other relevant findings associated with the problem under investigation.

Hypothesis 1

> Inmates who perceive that their access to medical care in prison is more difficult than their access to medical care before imprisonment will be more dissatisfied with prison health care delivery.

This hypothesis was supported by the data. A Pearson Product-moment coefficient demonstrated a significant relationship between perceived ability to access medical care in prison as compared to perceived ability to access medical care before imprisonment and dissatisfaction with prison health care delivery ($r = .42$, $p \leq .0005$). This finding may have been altered, however, if the comparison between perceived access to medical care in prison and perceived access to medical care before imprisonment had been determined by a separate question for each perception. In the present study, this comparison is evident to the subject and acceptance of this hypothesis should be made with this factor in mind.

Hypothesis 2

> Inmates who indicate that their physical health problems began in jail, will report more severe physical health problems.

This hypothesis was not supported by the data (X^2 = 11.19, df = 8, $p \leq .19$). The choice of statistic was Chi Square due to the nominal scale on which the independent variable was measured and due to the fact that Chi Square can also be applied to other types of data, including the ordinal data reflected in the perceived severity of physical health problems. Using Chi Square to analyze data other than nominal data reduces its strength markedly, however (Pophom, 1973). It is clear from Table 1 that in spite of the weakness of Chi Square in examining this hypothesis, a more robust test would not have produced the predicted results.

Table 1

Origins of Physical Health Problems as Reflected in Perceived Severity of Physical Health Problems (N=41)

Origin of Physical Health Problems	Perceived Severity				
	Not at all Severe (N = 1)	Not too Severe (N = 13)	Severe (N = 18)	Very Severe (N = 7)	Dangerously Severe (N = 2)
Before jail (N = 20)	0 (0)	7 (17)	7 (17)	6 (15)	0 (0)
During jail (N = 6)	0 (0)	3 (7)	3 (7)	0 (0)	0 (0)
In Prison (N = 15)	1 (2)	3 (7)	8 (19)	1 (2)	2 (4)

Note: The number of cases in each category is followed by the percentage in parentheses.

The 17 missing observations are accounted for by the fact that subjects who stated that they did not have a problem with their physical health were asked to omit the two questions which were designed to test this hypothesis. As can be seen in Table 1, however, only six subjects stated that the physical problems they were presently experiencing had their origins in jail, and the greatest number of subjects (N = 20) thought that their physical health problems had begun before any type of incarceration. It would appear that subjects who thought that their physical health problems began since coming to prison perceive a greater range of problem severity, including two subjects who felt that their problems were dangerously severe.

Hypothesis 3

> Inmates who perceive that they have no influence on access to medical care in prison will be more dissatisfied with prison health care delivery.

Although Chi Square was considered the statistic of choice for analyzing this hypothesis, no statistic could be computed due to the fact that no subject selected the "nothing" category when asked what might be done to influence access to medical care in prison. This particular sentiment did appear, however, in the category labeled "Other". Some responses were given which could be reasonably interpreted as reflecting a "nothing can be done" attitude. Table 2 shows that the greatest number of subjects (N = 21) decided to give their own interpretation of what they thought could be done to make

Table 2

Perceived Ability to Influence Prison Health Care Access as Reflected in Prison Health Care Satisfaction (N=52)

Action thought to influence access to prison health care	Level of Satisfaction					
	Very Dissatisfied (N = 23)	Moderately Dissatisfied (N = 11)	Slightly Dissatisfied (N = 9)	Slightly Satisfied (N = 3)	Moderately Satisfied (N = 5)	Very Satisfied (N = 1)
Nothing (N = 0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Discuss with Ombudsman (N = 5)	2 (3)	1 (2)	1 (2)	0 (0)	1 (2)	0 (0)
Hope it will get better (N = 2)	1 (2)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
Have someone file a law-suit (N = 9)	5 (10)	1 (2)	2 (3)	0 (0)	1 (2)	0 (0)
Sit down and talk with medical staff (N = 2)	0 (0)	0 (0)	2 (3)	0 (0)	0 (0)	0 (0)
Get more money for prison health care (N = 6)	2 (3)	1 (2)	1 (2)	1 (2)	1 (2)	0 (0)
Get outside help (N = 7)	2 (3)	2 (3)	1 (2)	2 (3)	0 (0)	0 (0)
"Other" (N = 21)	11 (21)	6 (12)	1 (2)	0 (0)	2 (3)	1 (2)

Note: The number of cases in each category is followed by the percentage in parentheses.

access to medical care easier. The six missing observations are accounted for by the fact that subjects responding that access to medical care was the same or easier than that which they had experienced before imprisonment were not included in the test of this hypothesis.

Among the 21 subjects who answered "Other", 10 subjects gave responses that could be interpreted as perceived lack of influence on accessibility to medical care. Of these 10 subjects, 80% were dissatisfied at some level with prison health care delivery. This hypothesis may have been partially supported by the data. However, major methodological errors inherent in the interview question designed to reflect perceived influence on prison health care access make any conclusions doubtful.

Hypothesis 4

> Inmates who are more internally-controlled in regards to health will be more satisfied with prison health care delivery.

This hypothesis was not supported by the data. A Pearson Product-moment Coefficient was not significant ($r = .10$, $p \leq .22$).

Hypothesis 5

> Inmates who are more externally-controlled in terms of powerful others will have less realistic expectations of health care providers.

Hypothesis 5 was not supported by the data. A Pearson Product-Moment Coefficient was not significant for either medical care expectations ($r = -.04$, $p \leq .41$) or for psychiatric care expectations

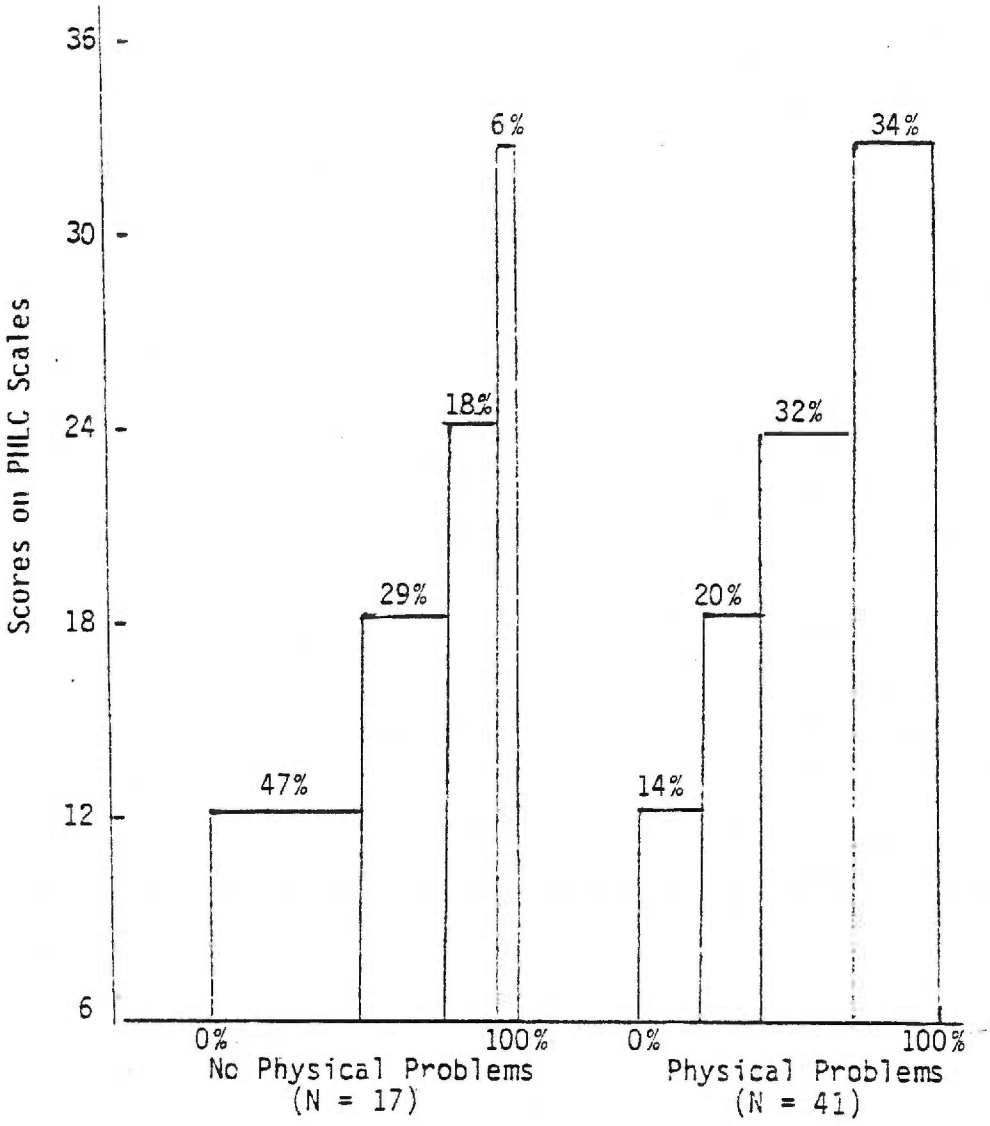
($r = .09$, $p \leq .35$). The realism scale used by an independent panel of physicians and nurses in determining values for the dependent variable was a scale range from 0 (inappropriate) to 3 (very realistic). The mean value for medical care expectations ($N = 41$) was 1.66, while the mean value for psychiatric care expectations ($N = 19$) was 2.26. The 17 missing cases for the medical care expectations are accounted for by the fact that 17 subjects stated that they did not have a medical problem and were therefore exempt from stating how the problem should be handled by medical care providers. The 39 missing cases for the psychiatric care expectations are accounted for similarly; thirty-nine subjects stated that they did not have a psychiatric problem.

Hypothesis 6

> Inmates who are more externally-controlled in terms of powerful others will report significantly more physical problems.

This hypothesis was supported by the data. A Pearson's correlation coefficient was significant ($r = .42$, $p \leq .0005$) for the number of physical problems reported by those subjects scoring high on the powerful-others dimension of health locus of control. Figure 1 is a histogram which shows the comparison of PHLC scores between "no physical problems" reported and "physical problems" reported. It is important to note that, by comparison, there was no significant correlation between internal locus of control and reporting of physical problems ($r = -.14$, $p \leq .13$). This is noteworthy because

Figure 1



Percent of Subjects Expressing No Physical Problems
Compared to Subjects Reporting Physical Problems
N = 58

one can score high on both the powerful-others locus of control scale and the internal locus of control scale.

Hypothesis 7

> Inmates who perceive prison as more stressful will report more severe physical problems.

The data did not support this hypothesis. The statistic of choice, a Pearson's Product-Moment Coefficient, was not significant as predicted ($r = .19$, $p \leq .11$). Table 3 demonstrates how perceived level of institutional stress correlated with perceived severity of physical health problems.

Table 3

Level of Prison Stress as Reflected in Perceived Severity of Physical Problems (N=41)

	Perceived Severity of Physical Problems				
Level of Prison Stress	Not at all Severe (N = 1)	Not too Severe (N = 13)	Severe (N = 18)	Very Severe (N = 7)	Dangerously Severe (N = 2)
Not stressful (N = 1)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
Less than avg. stress (N = 1)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)
Average stress (N = 3)	0 (0)	0 (0)	2 (4)	1 (2)	0 (0)
More than avg. stress (N = 15)	1 (2)	6 (15)	5 (12)	2 (4)	1 (2)
Very stressful (N = 21)	0 (0)	5 (12)	11 (27)	4 (10)	1 (2)

Note: The number of cases in each category is followed by the percentage in parentheses.

As Table 3 demonstrates, most subjects (N = 18) chose to center their physical assessments of themselves in the middle of the severity scale, tending to shy away from the upper end of severity more than the lower end. Table 3 also shows that subjects who feel that prison has more than the average amount of stress or is very stressful experience a wider range of severity in their physical problems, including one subject who perceived her problems to be not at all severe and two subjects who thought that their physical problems were dangerously severe. The 17 missing cases are accounted for by the fact that subjects not reporting physical problems were asked to omit questions rating the severity of such problems.

Hypothesis 8

> Inmates who perceive that they have less medical care than their cohorts on the outside will be more dissatisfied with prison health care delivery.

This hypothesis was supported by the data. A Pearson Product-Moment Coefficient demonstrated a significant relationship between perceived quantity of health care received in prison and dissatisfaction with prison health care delivery ($r = .27$, $p \leq .01$). This finding may have been altered, however, if the comparison between perceived quantity of health care received in prison and perceived quantity of health care available to cohorts on the outside had been determined by a separate question for each perception. In the present study, the comparison is apparent to the subject and

acceptance of this hypothesis should be made with this factor in mind. Table 4 demonstrates the high positive Kurtosis (5.803). However, it should be noted that subjects had only three choices from which to compare the perceived quantity of health care in prison to that which they perceived their cohorts to be getting on the outside. In Table 4, being very or somewhat dissatisfied is condensed into the category of low satisfaction. Slightly dissatisfied or slightly satisfied is condensed into moderate satisfaction. Somewhat and very satisfied are condensed into high satisfaction.

Table 4

Ratio of Perceived Quantity of Health Care in Prison to Perceived Quantity of Health Care on Outside as Reflected in Prison Health Care Satisfaction (N=58)

Amount of Prison Health Care Received	Prison Health Care Satisfaction		
	Low	Mod	Hi
Less (N = 49)	33 (57)	9 (16)	7 (12)
Same (N = 8)	1 (2)	4 (7)	3 (5)
More (N = 1)	1 (2)	0 (0)	0 (0)

Note: The number of cases in each category is followed by the percentage in parentheses.

Hypothesis 9

> Inmates who feel that they have suffered greatly by coming to prison will report that they have been denied available medical care more often than inmates who feel they have suffered less.

Hypothesis 9 was partially supported by the data. A Pearson's Product-Moment Coefficient approached significance in demonstrating a relationship between level of suffering and feeling denied available medical care ($r = .18$, $p \leq .08$). In order to clarify the issues of health care for inmates, they were asked to separate medical care from psychiatric care. While the relationship between level of suffering and feeling denied medical care only approached significance, the relationship between level of suffering and feeling denied psychiatric care was significant ($r = .36$, $p \leq .002$).

Additional Findings Not Tested by the Hypotheses

Three findings emerged from this study for which no hypotheses had been written:

1) Female inmate mean scores on the Internal Locus of Control Scale and the Powerful-others External Locus of Control Scale were very similar to the sample tested for development of the MHLC Scales. The mean score for the IHLC scale among the female inmate population was 25.034 and 25.104 for the MHLC population. The mean score for the PHLC scale among the female inmate population was 19.155 and 19.991 for the MHLC population. In view of the sample size in this study ($N = 58$) and the very small difference between the

sample means, it was obvious that significance could not be reached at the $\leq .05$ level. A t-test was therefore not computed on these findings.

2) Female inmates did score higher than the MHLC population on the Chance Health Locus of Control Scale. The mean score for the inmate population on the chance items was 16.810 and 15.574 for the MHLC population. A t-test for this difference was not significant, however ($t = .486$, $df = 171$, $p \geq .05$).

3-) Inmates scoring higher on the Internal Locus of Control Scale felt denied medical care significantly less often ($r = -.24$; $p \leq .02$).

Summary of Results

Table 5 on page 59 is a summary of the tests of the hypotheses of this study.

Table 5

Results Summary

Hypothesis		Supported	Statistic	p-Value
1		Yes	$r = .42$	$p \leq .0005$
2		No	$X^2 = 11.19$	$p \leq .19$
3		N/A	N/A	N/A
4		No	$r = .10$	$p \leq .22$
5		No	$r = .04$	$p \leq .41$
6		Yes	$r = .42$	$p \leq .0005$
7		No	$r = .19$	$p \leq .11$
8		Yes	$r = .27$	$p \leq .01$
9	medical	No	$r = .19$	$p \leq .08$
	psychiatric	Yes	$r = .36$	$p \leq .002$
Related Findings				
1		Not tested	N/A	N/A
2		No	$t = .486$	$p \geq .05$
3		Yes	$r = -.24$	$p \leq .02$

Chapter 5

Discussion and Summary

In this section, the discussion of findings are divided into four areas: 1-) control in health-related issues; 2-) dependence upon the system; 3-) inmate helplessness; and 4-) comparison between imprisonment and nonimprisonment in terms of health care perceptions. The discussion will be concluded by a brief statement regarding the major limitations of the study. This will be followed by a summary of the study which will include implications of the findings for nursing and other disciplines and suggestions for future research.

Locus of Control in Health-related Issues

Since the data available from this study do not provide support for any differences between the female inmate population and the normative population as measured by the MHLC Scales, the construct of health locus of control may be of limited value in explaining inmates' perceptions of prison health care delivery. The finding that the two populations do not differ significantly in terms of chance health locus of control may suggest that the loss of control experienced by female inmates (Sease, 1982) is not reflected in health beliefs having to do with this dimension. Although lack of control and the attribution of outcomes to luck and fate are commonly experienced by lower class people (Kephart, 1977), these feelings may

not get translated into health beliefs, or may not get carried into the prison setting, or simply may not coexist as part of the same dimension.

The internal and powerful-others dimensions of health locus of control appear also to be of little use in evaluating the issue of control in other health-related issues. Being internally-controlled, i.e., believing that the inmate stays or becomes healthy or sick as a result of her own behavior, did not significantly increase satisfaction with prison health care delivery. Likewise, being externally-controlled in terms of powerful-others, i.e., believing that health professionals control ones health, had no significant relationship to the expectations that female inmates had of health care providers. Since the MHLC Scales appear not to discriminate female inmates from the normative population, however, these findings are not surprising.

A major flaw in the use of the Health Locus of Control concept in this study may have been the investigator's assumption that this concept addresses how realistic people are in terms of their health beliefs. It is important, however, that value judgments not be made about a person's health locus of control (Lowery, 1981). The finding that female inmate's health care expectations had no significant relationship to a powerful-others locus of control may reflect this statement. The finding that female inmates had expectations of physical health care providers that averaged between unrealistic and somewhat realistic may simply be a statement about the inmate's lack

of knowledge related to the scope of physical health care and may not reflect her beliefs about health care providers. Likewise, the finding that her expectations of mental health care providers averaged between somewhat realistic and very realistic may reflect the inmate's awareness of the scope of mental health care and again may not reflect her beliefs about health care providers.

Dependence Upon the System

While the health locus of control construct appears to be of limited value in explaining female inmates' perceptions of health care delivery, it does appear useful in explaining female inmates' perceptions about their own physical impairment. Since female inmates who are more externally-controlled in terms of powerful others report significantly more physical problems, it may be that female inmates perceive themselves to be more dependent on prison health care providers for relief of their problems. This is consistent with the finding that the powerful-others external locus of control scale has distinguished groups of chronically-ill patients from the general population (Wallston, Oct. 29, 1982). Groups of patients with cancer, diabetes and arthritis have been distinguished by higher mean scores on the powerful-others external locus of control scale than their mean scores on the internal locus of control scale (Wallston, 1982). It seems reasonable to assume, however, that chronically-ill patients may be more dependent upon health care providers simply because of the nature of chronic disease. Periodic

evaluations, prescription renewals, and treatment orders are only some of the requirements of chronically-ill patients and these are available only through health care providers. In considering this possibility, however, caution should be exercised if this interpretation is based solely on the Multidimensional Health Locus of Control Scales or on the Locus of Control construct as it has been generally used.

The Multidimensional Health Locus of Control Scales are three separate scales designed to measure the degree of control an individual believes he/she has regarding his/her health along the dimensions of internal locus of control, powerful-others external locus of control and chance external locus of control. The statements designed to measure the internal locus of control and the chance external locus of control dimensions allow for a greater range of respondent interpretations than do the statements pertaining to the powerful-others locus of control dimension. Examples of the ambiguity found in both the internal locus of control items and the chance external locus of control items are, "If I take the right actions, I can stay healthy" (IHLC) and "If it's meant to be, I will stay healthy" (CHLC). The powerful-others items tend to be clearer as evidenced by the following example: "Having regular contact with my physician is the best way for me to avoid illness" (PHLC).

If the powerful others health locus of control dimension is more clearly defined in terms of dependence upon a <u>specific</u> system (i.e. health care providers), this scale may be a better reflection of the

value of the reinforcement found in depending upon a formal health care system than the internal locus of control dimension is of depending upon oneself or the chance locus of control dimension is of depending upon luck. This value of reinforcement in situations that are clearly defined is thought by Arakelian (1980) to be a better predictor of health phenomena than the locus of control dimension itself.

Interpreting the powerful-others external locus of control dimension as related to dependence upon the health care system in female penal settings requires further caution. A major misconception of the locus of control construct is the view that individuals who are more internally controlled are "good guys" and those who are externally-controlled are "bad guys" (Lowery, 1981). In the prison setting, where inmates may look to health-care providers for assistance that fulfills a secondary gain (Brutsche, 1975), those female inmates who express the most physical problems and who are shown by this study to be more externally-controlled have the potential for being seen as "bad guys" by health-care providers.

If inmate dependence upon the health care system is defined as inmate helplessness by health care providers, it is in the area of adaptation where the two concepts interface and where the inmate is most vulnerable to being misunderstood by health care providers. Lowery (1981) states that it may not always be relevant or healthy to be internal, i.e., relying on oneself for solutions to health problems, and that the relationship beween locus of control and

adjustment needs to be defined in a variety of ways. Defining dependence as helplessness, however, may further limit the concept of locus of control in terms of health beliefs by implying that when one is dependent upon health care providers that he/she is also helpless to respond to the direction of health professionals. Since this is not the definition of the powerful others dimension, it is important to consider the inmate's dependence as an adaptive mechanism rather than as a helpless or "bad guy" behavior. Dependence appears to be a form of adaptation in institutional settings, particularly in prison. Gillombardo (1966) found that female inmates who could not conform to a dependent status in prison had significant problems with adjustment.

The dimension of adaptation may be further examined by the use of sick role concept in that health problems are often perceived as forms of maladaptation. Sick role concept implies that in the case of physical problems, the person is not held accountable for his/her health problem. If the person is not responsible for the problem, he/she may not view it as his/her responsibility to take care of it. Looking to health care providers for the solution to a <u>physical</u> health problem may simply represent a logical step in the sick role process. In this interpretation, the occurrence of physical problems may say very little about the inmate's dependence upon health care providers and may simply reflect the reasoning process of the inmate who has more physical problems. In this case, the finding that female inmates who score high on the powerful-others dimension of

health locus of control have more physical problems would tend to be a statement about female inmate's style of thinking rather than her adaptation to imprisonment.

Inmate Helplessness

While the issue of adaptation to prison appears to be addressed in part by the concept of dependence, it appears to be addressed very little by the theory of learned helplessness. Murphy (1982) states that the theory of learned helplessness is limited by its failure to look at when helplessness is adaptive or maladaptive. This theory, however, can be very useful in examining control in stressful events (Murphy, 1982). Hypothesis 3 was an attempt to determine whether female inmates perceived that access to medical care was beyond their control, i.e., not within their ability to influence. Learned helplessness was thought to underlie the premise that female inmates might think that there was nothing they could do to exert control in the stressful situation related to medical care accessibility.

Problems with the Prison Health Interview and failure to address reformulation of the learned-helplessness theory by its author, however, created methodological problems for the analysis of this hypothesis. In the Prison Health Interview, the inmate was asked what she thought could be done to make getting medical care in prison easier. The question did not specify <u>whose</u> behavior would increase access to medical care, nor did the responses reflect <u>who</u> would perform the designated choices. To test learned-helplessness theory,

the question should have reflected the inmate's perception of her own ability to exert control in the matter of health care accessibility, as well as reflecting her perception of others' ability to influence accessibility to health care.

Reformulation of the theory of learned-helplessness followed extensive empirical testing of the original model developed by Seligman (1975). The degree of helplessness is now thought to vary with the type of attribution individuals make about the cause of the uncontrollable stress (Abramson, Seligman and Teasdale, 1978). More explicitly, individuals who blame themselves are more likely to exhibit greater helplessness than individuals who blame someone else in the environment. Additionally, "personal" helplessness is an individual's belief that a problem is not solvable by himself/herself, but is solvable by others. "Universal" helplessness, on the other hand, is an individual's belief that an event cannot be controlled by either oneself or others (Abramson, Seligman and Teasdale, 1978).

The ten inmates whose "other" response could be interpreted as perceived lack of influence upon access to medical care appear to express the idea that there is nothing anyone can do - either themselves or anyone else - to affect medical care accessibility in prison. Any conclusion regarding Hypothesis 3 would have to be viewed with caution; however, it would appear that those inmates who felt helpless in the area of health care accessibility felt universally helpless.

Comparison of Imprisonment and Nonimprisonment

It appears that after a woman comes to prison, her perception of her health situation can take on a different meaning. Female inmates seem to perceive a greater range of severity in physical health problems after incarceration in prison, as evidenced by data collected for Hypothesis 2. Apparently, female inmates who perceive prison as more stressful also experience a wider range of problem severity as shown by data collected for Hypothesis 7. Due to the few cases in both situations, however, this can only be interpreted in light of more significant findings found elsewhere in this study.

Female inmates perceive that their access to health care in prison is more difficult than their access to health care before imprisonment. Additionally, they perceive that they receive less health care than their cohorts on the outside. Both variables are significantly related to female inmates' dissatisfaction with prison health care delivery. This dissatisfaction may be best interpreted by the use of findings from other research and from examination of social exchange theory.

In their research on the relationships among dimensions of health services, Shortell, Richardson, LoGerfo, Diehr, Weaver & Green (1977) found that perceived access to health care was among the most important predictors of patient satisfaction. In their study, access was defined as the patient's perception of the ease with which services can be obtained when needed. Specifically, Shortell et al.

(1977) found that perceived access to care was related to patient age, sex, and years of education as well as the professional qualifications of the physician seen. They found specifically that satisfied subjects tended to be older, female, and to have had more education. Additionally, they found that the doctor needed to have more qualifications. The findings of Shortell et al. (1977) would tend to support the finding related to access to medical care in the present study as female inmates in this sample are young ($\overline{X}$ = 29), have lower levels of education ($\overline{X}$ level = 10.8 years) and perceive prison health care professionals as less qualified than outside health care professionals.

Social exchange theory appears to explain the finding that female inmates perceive that they receive less health care than their cohorts on the outside. The theory works further in helping to understand their dissatisfaction with prison health care delivery. Inequity will be perceived by the inmate when she perceives that she has made high inputs and received low outcomes and when she also perceives her cohort as experiencing a better input/outcome ratio (Adams, 1965). Qualitative data collected in this study suggest that female inmates perceive both that their cohorts on the outside experience easier access to medical care and that they have better trained and more understanding health care providers who are more able to relieve physical problems, variables which have been found to be related to patient satisfaction (Shortell et al., 1977). It is through social exchange theory that an explanation of inmate dissat-

isfaction with prison health care can be derived. Since female inmates perceive that their cohorts are receiving better health care on the outside and since they further perceive that they are receiving less health care in prison, a logical conclusion is that they would perceive that their health care was less satisfying.

The findings of this study related to inmate perceptions of access and amount of health care available take on added significance in the light of the finding that inmates who report greater suffering (i.e. loss of children, family support, etc.) perceive that they are denied the psychiatric care they need. Giallombardo (1966) found that women prisoners suffer intensely from separation from families and disruptions of familial roles because their identities on the "outside" have been based primarily on familial roles as wives, mothers and daughters. With the loss of these roles, the female inmate's usual support system and means of identification are weakened. This role and status deprivation is reflected in the findings of Adler (1975) that after incarceration, women's psychological functioning and coping skills deteriorate. One interpretation of the finding in this study that inmates who feel that they have suffered greatly by coming to prison also feel denied needed psychiatric care may be that female inmates are aware of their decreased coping skills. In her research on female inmates, Sease (1982) found that subjects could identify feeling a loss of control in their lives after coming to prison.

Limitations of the Study

This study was particularly limited by problems in both instruments. In terms of the MHLC Scales developed by Wallston & Wallston (1978), the sample used to develop the scales of internal, powerful-others and chance locus of control cannot be considered as representative of the general population. Subjects were persons over 16 years of age who were waiting at gates in a metropolitan airport. Although research assistants were instructed to approach a widely divergent group of persons, this is not an appropriate means of obtaining a representative sample. Findings related to the MHLC Scales in this study will need to be viewed with caution for this reason as well as others mentioned in the discussion.

In terms of the Prison Health Interview, there are scaling problems in almost every question. The scales need to be more clearly defined as ordinal or interval and need to reflect more positive responses. All questions and scales used to measure responses forced the subject to focus more on the negative aspects of the question at hand. Several questions asked the subject to consider more than one variable and to make comparisons that might have been better made through two or more questions.

Summary

This research study was conducted because the health care delivery in female penal settings is perceived by women prisoners to be inadequate. Since only descriptive data had been available on the

prison health care of women, determining the relationship between certain variables which might help explain female inmates' perceptions of prison health care seemed a logical step.

Review of the literature on female inmate health status and on female health care in prison revealed several important factors, some of which were reflected in the research findings. First, the environment and health experiences of this population are dominated by chronic deprivation. This factor may account for the severity of physical and mental disorders existing in this population. Secondly, as women take on the role of prison inmate, they encounter stresses that can compound their physical and mental health problems. Thirdly, female inmates' expectations of health care in prison may be affected by a complex interplay between their past deprivation, the present severity of their health problems and the stress of incarceration as it impacts on their perceived health status.

The conceptual framework for this study was composed of several concepts and theories that were thought to explain inmates' perceptions of prison health care delivery. Social learning theory was thought to underlie inmates' perceptions about access to health care delivery in that perceived inaccessibility to health care in prison may be an expectation that inmates have based upon prior difficulty in gaining access to health care on the "outside". Learned helplessness was used to explain inmates' perceptions about the amount of influence they felt they had in increasing access to medical care. The locus-of-control construct and the sick role

concept were used to explain the expectations that female inmates had of health care providers and to examine how inmates defined their health problems. Stressful life events theory was thought to underlie the reported incidence of physical health problems by inmates. Social exchange theory was used to explain inmates' perceptions of the fairness of the exchange process involved in their leaving the outside world and coming to prison.

This study used a correlational design to determine the relationship of personal health concerns and health care expectations of female inmates to their perceptions of health care delivery in prisons. The sample, N=58, was the entire inmate population of a small female penal institution in the Pacific Northwest, with the exceptions noted in the methods section.

Two instruments were used to collect data: A Prison Health Interview developed by the investigator and the Multidimensional Health Locus of Control Scales developed by Wallston & Wallston (1978). The Prison Health Interview is an 18-item interview guide focused on inmates' perceptions in the following areas: levels of physical and psychiatric illness, levels of institutional stress, ability to access health care, denial of health care, expectations of health care providers, and level of health care satisfaction. The Multidimensional Health Locus of Control Scales are three separate scales designed to measure the subjects' health locus of control along the dimensions of 1-) internal locus of control; 2-) powerful others external locus of control and 3-) chance external locus of

control. Nine hypotheses regarding access, perceptions, and expectations of health care were tested. Data were analyzed by Pearson Correlations and Chi-square analysis.

Findings of this research were:

1-) Inmates who perceive their access to medical care in prison as more difficult than their access to medical care before imprisonment were significantly more dissatisfied with prison health care delivery. ($r = .42$, $p \leq .0005$).

2-) Female inmates did not appear to differ from the population used to construct the MHLC Scales on the dimensions of Internal and Powerful-others Locus of Control and did not differ significantly from the population used to construct the MHLC Scales on the dimension of Chance Locus of Control ($t = .486$, $df = 171$, $p \geq .05$).

3-) Inmates who feel more externally-controlled by powerful others in regards to their health reported significantly more physical problems ($r = .42$, $p \leq .0005$).

4-) Inmates who felt more internally-controlled in regards to their health perceived that they were denied health care less often in prison. ($r = -.24$, $p \leq .03$).

5-) Inmates who perceived that they have less health care than their cohorts on the outside were significantly more dissatisfied with prison health care delivery ($r = .27$, $p \leq .01$).

6-) Inmates who felt that they had suffered greatly by coming to prison reported that they had been denied available psychiatric

care significantly more often than inmates who felt that they had suffered less ($r = .36$, $p \leq .002$).

In discussing these findings, it appears that the health locus of control construct may be of limited value in explaining inmates perceptions of health care delivery, but may be useful in explaining the inmates perceived level of physical impairment. It further appears that inmates who report more physical complaints may also perceive themselves to be more dependent on prison health care providers for relief of their problems. The perceptions of access and amount of health care available as they relate to prison health care satisfaction are consistent with the findings of Shortell et al. (1977) and with social exchange theory. Briefly, if inmates perceive that their access to medical care is more difficult following imprisonment than before imprisonment or if they perceive their access to quality health care is less than their cohorts on the outside, they will be dissatisfied with prison health care delivery. These findings tend to support the idea that perceptions have a role in the satisfaction of female inmates with prison health care. This role takes on added significance when one considers the finding that inmates who report greater suffering due to loss of children and family roles perceive that they have been denied the psychiatric care that they need.

Major limitations of this study stemmed from problems with both the MHLC Scales and the Prison Health Interview. The MHLC Scales may not have been constructed from a representative sample and the Prison

Health Interview had problems with the wording of questions and the scaling of responses.

Implications of the Findings

There are implications of the aforementioned findings for health educators, sociologists and nurses. First, since female inmates who are more externally controlled in terms of powerful others report more physical problems and may be more dependent upon health care providers, health educators may have a role in teaching inmates about their health problems and teaching them when it is appropriate to seek medical help from the prison health care staff. Health educators may also have a role in teaching prison health care staff how to best respond to the inmate who has perceived herself to be more physically impaired so that she will feel supported by them. If the female inmate can learn when to appropriately seek medical help and if the prison health care staff can learn how to respond in a supportive manner to these visits, reinforcement should occur.

Secondly, if incarceration can alter perceptions related to health among female inmates,it seems reasonable to speculate that other perceptions may also be altered. Since it appears that family dynamics play a key role in the perception of denial of certain kinds of health care, and denial of health care has been a major focus of litigation among inmates, perhaps female prisons need to be structured in such a way as to allow for more family interaction between inmate and significant others, particularly between mother

and child. This would have significance for sociologists, but may also have significance for mental health professionals due to inmate perceptions of being denied psychiatric service when separation from families has produced a great amount of suffering.

Thirdly, since access to health care has been identified as an issue which can contribute to dissatisfaction with prison health care and since nurses in prison have traditionally been viewed by inmates as the person who controls access to the physicians' time, expanding the nurse's role in prison seems clearly indicated and is supported by the work of Murtha (1975) in New York City's Correctional system. Nursing may be in a position to help with the inmate's perceptions about access to health care. If the role of the prison nurse is expanded to include more direct provision of mental and physical health services, this may improve both the health care provided as well as prisoners access to it.

Recommendations for Future Research

This study has scarcely tapped what may be a critical area for female inmates and correctional facilities throughout the United States and Canada. Similar studies should be repeated, perhaps even with male prisoners, to gain a better understanding of the allegations regarding the quality of prison health care. Given the fundamental position adequate medical care now occupies in institutional operational priorities, this area is one which courts can be expected to scrutinize closely. Litigation surrounding medical

issues has become one of the more costly areas of litigation for correctional systems (Collins, 1979), and the stress surrounding medical issues has become one of the more prominent stresses for female inmates (Shaw, 1981).

A similar study should begin with major changes in the Prison Health Interview. All questions should be re-written to reflect a broader range of focus for the subject and should be written more simply. Scales designed for measurement of attitudes should be better defined. A more complete review of the research and replication of research on the concept of health locus of control should be undertaken with the possible deletion of this instrument from future studies. Other instruments should be added such as a Health Status Checklist, a Life Experiences Survey or the Social Readjustment Rating Scale (Holmes & Rahe, 1967) and an Index of Social Support. Critiques of all instruments should be thoroughly reviewed. The analysis of a future study might also be better approached as the work of Shortell et al. (1977) suggests, i.e., using a causal model involving multiple regression analysis.

In terms of nursing, an intervention study appears most indicated. Since nurses have been perceived more as gate-keepers than as direct care providers, a study designed to measure the effects of direct nursing intervention on inmates' perceptions of health care may prove worthwhile in the prison setting. A similar study has produced significant results in the jail setting (Hastings et al., 1980).

References

Abramson, L., Seligman, M., Teasdale, J., Learned helplessness in humans: critique and reformulation. Journal of Abnormal Psychology. 1978, 87, 49-74.

Ackerman, P. H. A staff group in a women's prison. International Journal of Group Psychotherapy.1972, 22, 364-373

Adams, J. S. Inequity in social exchange, in L. Berkowitz (ed.) Advances in experimental social psychology, 276-299. New York: Academic Press, 1965.

Adler, F. Sisters in Crime. New York: McGraw-Hill Book Co., 1975.

Arakelian, M. An assessment and nursing application of the concept of locus of control. ANS 1980, 3, 25-42.

Baridon, P. C. and Rosner, K. Characteristics of women forensic patients in a federal hospital. Hospital and Community Psychiatry. 1981, 32, 50-53.

Burkhart, K. W. Women in Prison. New York: Doubleday, 1973.

Brutsche, R. L. Problems of health care delivery in penal institutions. New York State Journal of Medicine. 1975, 1082-1084.

Chaisson, G. M. Correctional health care - beyond the barriers. American Journal of Nursing 1981, 81, 737-738.

Climent, C. E., Rollins, A., Ervin, F. R., Plutchik, R. Epidemiological studies of women prisoners, I: medical and psychiatric variables related to violent behavior. American Journal of Psychiatry. 1973, 130, 985-990.

Cloninger, C. R., Guze, S. B. Psychiatric disorders and criminal recidivism: a follow-up study of female criminals. Archives of General Psychiatry. 1973, 29, 266-269.

Collins, W. C. How to ignore a medical system and lose a lawsuit. Corrections Today. January-February, 1979. pp. 12-19.

Dimick, K. M. Ladies in Waiting: Behind Prison Walls. Muncie, Indiana: Accelerated Development, Inc., 1979.

Dutton, D. B. Explaining the low use of health services by the poor: cost, attitudes, or delivery systems? American Sociological Review. 1978, 43, 348-368.

Giallombardo, R. Society of Women: A Study of a Women's Prison. New York: John Wiley & Sons, Inc., 1966.

Griffith, J. E. Pennington-Averett, A., Bryon, I. Women prisoners' multidimensional locus of control. Criminal Justice and Behavior. 1981, 8, 375-389.

Goffman, E. Characteristics of total institutions. Pp. 294-298 and 310-316 in S. P. Spitzer and N. K. Denzin (Eds.), The Mental Patient. New York: McGraw-Hill, 1968.

Good, M. I. Primary affective disorder, aggression, and criminality. Archives of General Psychiatry.1978, 35, 954-960.

Grossbart, T. A. Bringing peace to embattled skin. Psychology Today. Feb. 1982. pp. 55-60.

Hastings, G. E., Vick, L., Lee, G., Sasmor, L., Natiello, T. A. & Sanders, J. H. Nurse practitioners in a jailhouse clinic. Medical Care. 1980, 18, 731-744.

Holmes, T. H. & Rohe, R. H. The social readjustment rating scale. Journal of Psychosomatic Research. 1967, 11, 213-218.

Jensen, G. F., Jones, D. Perspectives on inmate culture: a study of women in prison. Social Forces.1976, 54, 590-603.

Justice, B. & McBee, G. A client satisfaction survey as one element in evaluation. Community Mental Health Journal. 1978, 14 248-252.

Kasl, S. V. and Cobb, S. Some psychological factors associated with illness behavior and selected illness. Journal of Chronic Diseases. 1964, 17, 325-345.

Kennedy, J. A. A view from inside. American Journal of Nursing, 1975, 75, 417-420.

Kephart, W. M. The Family, Society, and the Individual. Boston: Houghton Mifflin Co., 1977.

Levenson, H. Multidimensional locus of control in prison inmates. Journal of Applied Social Psychology.1975, 5, 342-347.

Little, L. A change process for prison health nursing. American Journal of Nursing, 1981, 81, 739-742.

Loewenstin, P. Prison. Headache. 17 March 1977, pp. 1-4.

Lowery, B. J. Misconceptions and limitations of locus of control and the I-E Scale. Nursing Research. 1981, 30, 294-298.

Lubasch, A. H. U. S. Court orders improvements in medical care at women's prison. The New York Times. Nov. 1, 1977. Pg. 73, Col.1.

Miller, S. M. & Mishler, E. G. Social class, mental illness, and american psychiatry: an expository review. Milbank Memorial Fund Quarterly. Apr. 1959, 37, 1-26.

Miller, T. W. Life events scaling: clinical methological issues. Nursing Research. 1981, 30, 316-320.

Moritz, P. Health care in correctional facilities: a nursing challenge. Nursing Outlook. 1982, 30, 253-259.

Mowday, R. T. Equity theory predictions of behavior in organizations. Pp. 124-146 in R. M. Steers and L. W. Porter (Eds.), Motivation and Work Behavior. New York: McGraw-Hill Book Co., 1979.

Murphy, S. A. Learned helplessness: from concept to comprehension. Perspectives in Psychiatric Care. 1982, 20, 27-32.

Murtha, R. Health care in prison: change in one city's system. It started with a director of nursing. American Journal of Nursing, 1975, 75, 421-422.

Myles, J. F. Institutionalization and sick role identification among the elderly. American Sociological Review. 1978, 43, 508-521.

Parsons, T. The Social System. New York: Free Press. 1951.

Petrich, J. Psychiatric treatment in jail: an experiment in health-care delivery. Hospital and Community Psychiatry. 1976, 27, 413-415.

Popham, W. J. Educational Statistics. New York: Harper & Row Publishers, 1973.

Roghmann, J. J., Hengst, A. and Zastowny, T. R. Satisfaction with medical care: its measurement and relation to utilization. Medical Care. 1979, 17, 461-479.

Rotter, J. B. Social Learning and Clinical Psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1954.

Sarri, R., Figueira-McDonough, J. Society's Losers. Institute for Social Research Newsletter, Autumn 1981.

Sease, S. S. Grief associated with a prison experience: counseling the client. Journal of Psychosocial Nursing. 1982, 20, 25-27.

Segall, A. The sick role concept: understanding illness behavior. Journal of Health and Social Behavior. 1976, 17, 163-170.

Seligman, M.E.P. Depression and learned helplessness. In R. J. Friedman and M. M. Katz (Eds.). The Psychology of Depression: Contemporary Theory and Research. Washington, D.C.: Winston-Wiley, 1974.

Shanok, S. S., Lewis, D. O. Medical histories of female delinquents. Clinical and epidemiologic findings. Archives of General Psychiatry. 1981, 38, 211-213.

Shaw, N. S. Female prisoners view their health. Journal of Prison Health. 1981, 1, 30-43.

Shortell, S. M., Richardson, W. C., LoGerfo, J.P., Diehr, P., Weaver, B. & Green, K.E. The relationship among dimensions of health services in two provider systems: a causal model approach. Journal of Health and Social Behavior,1977, 18,139-159.

Sobel, S. B. Women in prison: sexism behind bars. Professional Psychology, 1980, 331-338.

Taylor, D. G., Aday, L. A. & Anderson, R. A social indicator of access to medical care. Journal of Health and Social Behavior. 1975, 16, 38-48.

Tessler, R. and Mechanic, D. Psychological distress and perceived health status. Journal of Health and Social Behavior. 1978, 19, 254-262.

Vejnoska, J. Study finds alcohol problems among incarcerated women NIAAA Information and Feature Service, IFS No. 89. (Rockville, Maryland: U.S. Dept. of Health and Human Services, 1981.)

Wallston, B. S., Wallston, K. A., Kaplan, G. D. & Daides, S. A. Development of the health locus of control (HLC) scale. Journal of Consulting and Clinical Psychology.1976, 44, 580-585.

Wallston, K. A. and Wallston, B. S. Development of the multidimensional health locus of control (MHLC) scales. Health Education Monographs. 1978, 6, 160-170.

Wallston, K. A. Personal communication Oct. 29, 1982.

Ward, D. A. & Kassebaum, G. G. Womens' Prison. Chicago: Aldine Publishing Co., 1965.

Winstead-Fry, P. Mental health nursing of inmates. American Journal of Nursing. 1975, 75, 425-426.

APPENDIX A

APPENDIX A

Prison Health Interview
(PHI)

1-) Do you have any problems with your physical health at this time?

Yes _____ No _____

2-) If yes, how severe do you think your physical problems are?

not at all severe	not too severe	severe	very severe	dangerously severe
_____	_____	_____	_____	_____

Probe: If physical problems are severe to dangerously severe, give an example.

3-) If yes, when did your physical problems begin?

Before you went to jail	During your stay in jail	Since coming to prison
_____	_____	_____

Probe: If during jail, tell me about this.

4-) Do you have any problems with your mental health at this time?

Yes _____ No _____

5-) If yes, how severe do you think your mental problems are at this time?

not at all severe	not too severe	severe	very severe	dangerously severe
_____	_____	_____	_____	_____

Probe: If mental problems are severe to dangerously severe, give an example.

6-) If yes, when did your mental problems begin?

Before you went to jail	During your stay in jail	Since coming to prison
_____	_____	_____

Probe: If during jail, tell me about this.

7-) How stressful do you think being in prison is?

Not stressful	Less than avg. amount of stress	Avg. amount of stress	More than avg. amount of stress	Very stressful
_____	_____	_____	_____	_____

Probe: If more than average amount of stress, in what way is prison stressful?

8-) How much do you feel you have suffered (given up friends, family, children, and roles within society) to come to prison?

No suffering at all	Very little suffering	Avg. amount of suffering	Great amount of suffering	Intolerable suffering
_____	_____	_____	_____	_____

Probe: If great or intolerable suffering, what has brought about your suffering?

9-) How does the ease with which you get in for medical care in prison compare to how easy it was for you to get medical care before coming to prison? (Do not include your time in jail)

Extremely difficult	More difficult	The same	Easier	Extremely easy
_____	_____	_____	_____	_____

Probe: Give an example of easier/more difficult access to medical care.

10-) If you feel that getting medical care in prison is more difficult or extremely difficult as compared to getting medical care on the outside, what do you feel can be done to make getting medical care easier?

Nothing	Discussing it with the Ombudsman	Hoping that it will get better	Have someone file a law-suit
_____	_____	_____	_____

Sitting down and talking about it with the medical staff	Getting prison activists to lobby for more money for prison health care	Getting someone from outside to help (family, friends)
_____	_____	_____

Other _____

_____

11-) As compared to a woman of the same age, ethnic background and social class who is not in prison, how much medical care do you feel you receive here.

Less	The same	More
_____	_____	_____

Probe: Give an example.

12-) If you were the medical department of this prison, how would you handle your medical problem?

13-) If you were the mental health department of this prison, how would you handle your mental health problem?

14-) How close does the medical department come to handling your medical problem the way you think it should be handled?

Poor	Less than average	Average	More than average	Very well
____	____	____	____	____

Probe: Explain

15-) How close does the mental health staff (psychiatrists, psychologists and therapists) come to handling your mental health problem the way you think it should be handled?

Poor	Less than average	Average	More than average	Very well
____	____	____	____	____

Probe: Explain

16-) Do you feel that you are ever denied needed medical care by the medical staff working here?

Never	Infrequently	Occassionally	Often	Always

Probe: Why do you think this has happened?

17-) Do you feel that you are ever denied needed psychiatric care by the psychiatric staff working here?

Never	Infrequently	Occassionally	Often	Always

Probe: Why do you think this has happened?

18-) How satisfied are you with the health care that you receive, (i.e. that is delivered to you) here in prison?

Very dissatis-fied	Somewhat dissatis-fied	Slightly dissatis-fied	Slightly satisfied	Somewhat satisfied	Very satisfied

Probe: If somewhat or very dissatisfied, what would have made it more satisfactory?

APPENDIX B

VANDERBILT UNIVERSITY

NASHVILLE, TENNESSEE 37240 TELEPHONE (615) 322-7311

Health Care Research Project • School of Nursing • Direct phone 322-2520

May 17, 1982

Dear Colleague:

Thank you for your interest in our Health Locus of Control Scales. Please excuse this form response, but we have so many inquiries requiring similar replies that we have found this to be an efficient means of disseminating information.

You have our permission to utilize the scales in any health related research you are doing. Our only request is that you keep us informed of any results you obtain using the scales. In that way we hope to continue to serve as a clearinghouse for information about the scales.

We recommend using the more recently developed Multidimensional Health Locus of Control Scales (Health Education Monographs, 6, Spring, 1978, pp. 160-170) over the earlier, unidimensional HLC Scale (Journal of Consulting and Clinical Psychology, 1976, 44, 580-585), since the newer measures are psychometrically superior and potentially more useful.

If you wish to be added to our mailing list or want us to send you additional material, please complete the enclosed interest questionnaire. We hope to periodically send additional material related to use of these scales as it becomes available.

If you have more specific questions, don't hesitate to contact us. Please remember to send us information on any use you make of our scales. We have included a usage questionnaire to facilitate your doing so. We look forward to hearing from you.

Sincerely,

Kenneth A. Wallston, Ph.D.
Professor of Psychology
in Nursing
School of Nursing
Vanderbilt University
Nashville, TN 37240
(615) 322-2813

Barbara Strudler Wallston, Ph.D
Associate Professor of Psychology
George Peabody College
of Vanderbilt University
Nashville, TN 37203
(615) 322-8220

MHLC

This is a questionnaire designed to determine the way in which different people view certain important health-related issues. Each item is a belief statement with which you may agree or disagree. Beside each statement is a scale which ranges from strongly disagree (1) to strongly agree (6). For each item we would like you to circle the number that represents the extent to which you disagree or agree with the statement. The more strongly you agree with a statement, then the higher will be the number you circle. The more strongly you disagree with a statement, then the lower will be the number you circle. Please make sure that you answer every item and that you circle only one number per item. This is a measure of your personal beliefs; obviously, there are no right or wrong answers.

Please answer these items carefully, but do not spend too much time on any one item. As much as you can, try to respond to each item independently. When making your choice, do not be influenced by your previous choices. It is important that you respond according to your actual beliefs and not according to how you feel you should believe or how you think we want you to believe.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1. If I get sick, it is my own behavior which determines how soon I get well again.	1	2	3	4	5	6
2. No matter what I do, if I am going to get sick, I will get sick.	1	2	3	4	5	6
3. Having regular contact with my physician is the best way for me to avoid illness.	1	2	3	4	5	6
4. Most things that affect my health happen to me by accident.	1	2	3	4	5	6
5. Whenever I don't feel well, I should consult a medically trained professional.	1	2	3	4	5	6
6. I am in control of my health.	1	2	3	4	5	6
7. My family has a lot to do with my becoming sick or staying healthy.	1	2	3	4	5	6
8. When I get sick I am to blame.	1	2	3	4	5	6

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
9. Luck plays a big part in determining how soon I will recover from an illness.	1	2	3	4	5	6
10. Health professionals control my health.	1	2	3	4	5	6
11. My good health is largely a matter of good fortune.	1	2	3	4	5	6
12. The main thing which affects my health is what I myself do.	1	2	3	4	5	6
13. If I take care of myself, I can avoid illness.	1	2	3	4	5	6
14. When I recover from an illness, it's usually because other people (for example, doctors, nurses, family, friends) have been taking good care of me.	1	2	3	4	5	6
15. No matter what I do, I'm likely to get sick.	1	2	3	4	5	6
16. If it's meant to be, I will stay healthy.	1	2	3	4	5	6
17. If I take the right actions, I can stay healthy.	1	2	3	4	5	6
18. Regarding my health, I can only do what my doctor tells me to do.	1	2	3	4	5	6

MHLC

This is a questionnaire designed to determine the way in which different people view certain important health-related issues. Each item is a belief statement with which you may agree or disagree. Beside each statement is a scale which ranges from strongly disagree (1) to strongly agree (6). For each item we would like you to circle the number that represents the extent to which you disagree or agree with the statement. The more strongly you agree with a statement, then the higher will be the number you circle. The more strongly you disagree with a statement, then the lower will be the number you circle. Please make sure that you answer every item and that you circle only one number per item. This is a measure of your personal beliefs; obviously, there are no right or wrong answers.

Please answer these items carefully, but do not spend too much time on any one item. As much as you can, try to respond to each item independently. When making your choice, do not be influenced by your previous choices. It is important that you respond according to your actual beliefs and not according to how you feel you should believe or how you think we want you to believe.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1. If I become sick, I have the power to make myself well again.	1	2	3	4	5	6
2. Often I feel that no matter what I do, if I am going to get sick, I will get sick.	1	2	3	4	5	6
3. If I see an excellent doctor regularly, I am less likely to have health problems.	1	2	3	4	5	6
4. It seems that my health is greatly influenced by accidental happenings.	1	2	3	4	5	6
5. I can only maintain my health by consulting health professionals.	1	2	3	4	5	6
6. I am directly responsible for my health.	1	2	3	4	5	6
7. Other people play a big part in whether I stay healthy or become sick.	1	2	3	4	5	6
8. Whatever goes wrong with my health is my own fault.	1	2	3	4	5	6

		Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
9.	When I am sick I just have to let nature run its course.	1	2	3	4	5	6
10.	Health professionals keep me healthy.	1	2	3	4	5	6
11.	When I stay healthy, I'm just plain lucky.	1	2	3	4	5	6
12.	My physical wellbeing depends on how well I take care of myself.	1	2	3	4	5	6
13.	When I feel ill, I know it is because I have not been taking care of myself properly.	1	2	3	4	5	6
14.	The type of care I receive from other people is what is responsible for how well I recover from an illness.	1	2	3	4	5	6
15.	Even when I take care of myself, it's easy to get sick.	1	2	3	4	5	6
16.	When I become ill, it's a matter of fate.	1	2	3	4	5	6
17.	I can pretty much stay healthy by taking good care of myself.	1	2	3	4	5	6
18.	Following doctor's orders to the letter is the best way for me to stay healthy.	1	2	3	4	5	6

APPENDIX C

VICTOR ATIYEH
GOVERNOR

Department of Human Resources
CORRECTIONS DIVISION
Oregon Women's Correctional Center
2605 STATE STREET, SALEM, OREGON 97310 PHONE 378-2441

May 20, 1982

Beverly Hoeffer, R.N., D. Ns.
Oregon Health Sciences
University
Portland, Or.

Dear Dr. Hoeffer:

This letter will serve to recognize Faith Knox as an Intern in pyschiatric nursing who has discussed a research project with my office.

Ms Knox has reviewed her project with me in some detail, and I am supportive of her coming to the Oregon Women's Correctional Center to do the necessary research. She will be accessed to file material which, given necessary permission, she needs to complete the study.

The project will need final approval from the Corrections Division, and Ms Knox has worked towards that end.

I am hopeful the project will be approved. The study could be very beneficial to us.

If you have any questions, please do not hesitate to write or to call me.

Sincerely,

[redacted]

(Mrs.) P. R. Tuthill

APPENDIX D

APPENDIX D

Department of Human Resources
CORRECTIONS DIVISION
2575 CENTER STREET N.E., SALEM, OREGON 97310 PHONE 378-2467

June 10, 1982

Michael Wall, M.D.
Chairman
Committee on Human Research
c/o Florence Summerfield
MacKenzie Hall, Rm. 2160
University of Oregon Health
Sciences Center
3181 SW Sam Jackson Park Road
Portland, Oregon 97201

Dear Dr. Wall:

Faith J. Knox, R.N., tells me that her thesis proposal involving inmates of the Oregon's Women's Correctional Center is to be given final review by your committee later this month.

Mrs. Knox's proposal has been carefully reviewed at several staff levels within the Women's Center and in the Corrections Division central office. At is June 8, 1982, meeting, the Corrections Division Policy Committee approved the proposal as presented. The members of the Committee felt that the results of the project would be of significant benefit to the Division and ultimately to our inmates, and would probably prove to be of great interest to correctional administrators throughout the United States and Canada.

In consultation with OWCC Assistant Superintendent Robert Schiedler, who has been named Project Liaison Officer, Mrs. Knox is now authorized to approach OWCC inmates, and to interview, administer questionaires to, and gather records information concerning those who voluntarily grant written informed consent.

A copy of our rule governing review and approval of research proposals, setting the conditions of this authorization, is attached for your reference. Mrs. Knox has specifically agreed to the stipulation that she ensure complete confidentiality of individual responses and information which she may obtain through her research Activities. In line with standing policy, the Division guarantees

that no inmate will experience either benefit or harm as a result of acceptance or rejection of participation, or of any statement or information which may be given to Mrs. Knox in the course of her research.

If you have any questions concerning our approval or its conditions, please feel free to call me at 378-2419.

Sincerely,

[redacted]

O. R. Chambers
Corrections Division
Research Contact Officer

ORC:dw
Attachment

cc: Mrs. Faith Knox

APPENDIX E

APPENDIX E

Oregon Health Sciences University
School of Nursing

Informed Consent

I, _____, have heard Mrs. Knox, RN,
(First name) (Last name)
explain the study entitled "The Relationship of the Personal Health Concerns and the Health Care Expectations of Female Prisoners to their Perceptions of Health Care Delivery in Prison." I understand that the purpose of the study is to increase health care providers' understanding of health care needs and concerns of female prisoners. I also understand that the study is being conducted by Faith Knox, graduate nursing student at Oregon Health Sciences University, under the supervision of Beverly Hoeffer, R.N., D.N. Sc.

If I agree to participate, the following will happen: I will be interviewed by Faith Knox for approximately one hour about my health care needs and concerns. Mrs. Knox will record my answers on a "Prison Health Interview" form. Next, I will fill out a written questionnaire labeled "MHLC." The interview and written questionnaire may take up to two hours of my time. If I feel uncomfortable answering any of the questions, I may terminate the interview or questionnaire. There are no other risks to me. I understand that there may be no direct benefit to me, however it is hoped that the findings of this study will benefit other prisoners in the future.

All information will be kept confidential. My name will not appear on any questionnaire, and all written forms will be kept in a locked file. All questionnaires and interview forms will be destroyed when the study is over. I understand that the data will be reported by Faith Knox, R.N., B.A., in her masters thesis for Oregon Health Sciences University. Data reported in Mrs. Knox's thesis will be done in such a manner that the subjects will be kept annonymous and unidentifiable. There will be no release of information concerning the study or its results without the prior approval of the Administrator of Corrections.

Any questions I might have during or after the study is completed will be answered by Mrs. Knox. I also understand that I may refuse to be in this study at any time without affecting any treatment or services I may neet at Oregon Women's Correctional Center.

I have read the foregoing and agree to participate in this study.

_____
(Date)

_____
Subject's Signature

APPENDIX E

Oregon Health Sciences University
School of Nursing

Informed Consent

I, _____ , have heard Mrs. Knox, RN,
(First name) (Last name)
explain the study entitled "The Relationship of the Personal Health Concerns and the Health Care Expectations of Female Prisoners to their Perceptions of Health Care Delivery in Prison." I understand that the purpose of the study is to increase health care providers' understanding of health care needs and concerns of female prisoners. I also understand that the study is being conducted by Faith Knox, graduate nursing student at Oregon Health Sciences University, under the supervision of Beverly Hoeffer, R.N., D.N. Sc.

If I agree to participate, the following will happen: I will be interviewed by Faith Knox for approximately one hour about my health care needs and concerns. Mrs. Knox will record my answers on a "Prison Health Interview" form. Next, I will fill out a written questionnaire labeled "MHLC." The interview and written questionnaire may take up to two hours of my time. If I feel uncomfortable answering any of the questions, I may terminate the interview or questionnaire. There are no other risks to me. I understand that there may be no direct benefit to me, however it is hoped that the findings of this study will benefit other prisoners in the future.

All information will be kept confidential. My name will not appear on any questionnaire, and all written forms will be kept in a locked file. All questionnaires and interview forms will be destroyed when the study is over. I understand that the data will be reported by Faith Knox, R.N., B.A., in her masters thesis for Oregon Health Sciences University. Data reported in Mrs. Knox's thesis will be done in such a manner that the subjects will be kept annonymous and unidentifiable. There will be no release of information concerning the study or its results without the prior approval of the Administrator of Corrections.

Any questions I might have during or after the study is completed will be answered by Mrs. Knox. I also understand that I may refuse to be in this study at any time without affecting any treatment or services I may neet at Oregon Women's Correctional Center.

I have read the foregoing and agree to participate in this study.

_____
(Date)

_____
Subject's Signature

APPENDIX F

APPENDIX F

DESCRIPTION OF VARIABLE	HOW MEASURED
1. a.) Perception of difficulting regarding access to medical care in prison.	1a.) PHI - Question #9
b.) Perception of difficulty regarding access to medical care before prison.	1b.) PHI - Question #9
2. Satisfaction with health care delivery.	2.) PHI - Question #I8
3. When health problems began	3.) PHI - Questions #3 and #6
4. Severity of physical health problems	4.) PHI - Question #2
5. Perceived helplessness regarding access to medical care.	5.) PHI - Question #10
6. Health locus of control - Internal control.	6.) MHLC - Questions #1, 6,8,12,13 and 17
7. Health locus of control - Powerful others.	7.) MHLC - Questions #3, 5,7,10,14 and 18
8. Unrealistic expectations of doctors and/or nurses.	8.) PHI - Question #12
9. Perceived stress of prison	9.) PHI - Question #7
10. Amount of perceived physical problems	10.) PHI - Question #1
11. Amount of perceived medical care as compared to cohorts on outside	11.) PHI - Question #11
12. Amount of perceived suffering due to coming to prison.	12.) PHI - Question #8
13. Feeling that medical care is denied.	13.) PHI - Question #16

APPENDIX G

ORS I.D. No. 106

APPENDIX G

UNIVERSITY OF OREGON HEALTH SCIENCES CENTER
Committee on Human Research

PROTECTION OF HUMAN SUBJECTS
INITIAL REVIEW QUESTIONNAIRE

This information is needed to determine the human risks and potential benefits of the proposed research. The questionnaire is based on DHEW requirements for the protection of human subjects, UOHSC policy, and legal considerations. All research involving humans, regardless of funding, must be reviewed. NOTE: Current NIH regulations require that applications involving humans be reviewed by this institution within 60 days after the grant deadline. Please allow 6-8 weeks for the review process.

Principal Investigator: (Last Name)	(First Name)	(Initial)	(Degree/Other)
Hoeffer	Beverly		R.N., D.N. Sc.

Department/Division	Rank/Academic Standing	School	Telephone	Building/Room #
Mental Health Nursing	Associate Professor	Nursing	225-7827	Emma Jones Hall, Rm 5

Research Project Title
The relationship of the personal health concerns and the health care expectations of female prisoners to their perceptions of health care delivery in prison

Funding Source or Sponsor, if any	I.D. No. assigned by funding source, if any

1. DECLARATION THAT HUMAN SUBJECTS EITHER WOULD OR WOULD NOT BE INVOLVED:

Does the proposed research involve human subjects, including human organs, tissues, fluids, or other materials; or the collection of potentially confidential information?

X Yes ___ No

If NO, no further information is needed. Sign (page 4) and attach the questionnaire to the front of your proposal.

2. Has the SAME project been reviewed before? ___ Yes X No

If YES, give ORS I.D. No.: _____ Title of Project: _____

Principal Investigator: _____ Review Date: _____

Please note on separate attachment(s) any changes in the current proposal which differ from the previously approved protocol with regard to procedures involving human subjects (e.g., duration of study, age of subjects, study population, frequency of tests or visits, volume of blood, etc.). IMPORTANT: Federal and state regulations require that the committee be informed of even minor changes. OR, I certify that there are no changes in this protocol _____.

Signature

Study subjects will include (please check): ___ Minors; ___ Fetuses; ___ Abortuses; X Prisoners; ___ Pregnant Women; ___ Mentally Retarded; ___ Mentally Disabled; ___ None of the above.

If this study may involve any of the above special subject groups, check one:

X Use of such subjects is a necessary part of the project.

___ Such subjects may be included incidentally as members of a more general population.

Will this work be done if the project is not funded? X Yes ___ No

Indicate date on which you expect to start this research:

Funding date: _____ Other: June, 1982

Research will be conducted through or in collaboration with: PLEASE CHECK:

School of Nursing	X	Clinical Research Center	___	Primate Center	___
School of Dentistry	___	VA Hospital	___	Other	_____
				Not Applicable	___

If one of the above is checked, this questionnaire and a copy of the protocol and consent form should be submitted to the Human Research subcommittee of that school or activity, as well as the UOHSC Committee on Human Research.

DRUG USAGE: Will an investigational (unapproved) new drug be used? ___ Yes X No

OR

Will an approved drug be used for an unapproved indication? ___ Yes X No

If YES, 1) Name the drug(s) and uses _____

_____

2) Attach the data on previous human experience, animal studies and lab tests.
3) Give the name of person/firm that holds IND and the date of IND filing:
   Name: _____ Date: _____
   Address: _____
4) Sign the separate investigator's assurance below.
5) Obtain a copy of the official consent form from the State Board of Pharmacy, 1400 S.W. 5th Avenue, Portland, Oregon 97201, (503) 229-5849.

O BE SIGNED ONLY IF SUBJECTS ARE TO RECEIVE FDA-REGULATED INVESTIGATIONAL NEW DRUG
R DEVICES. I will obtain each subject's written informed consent on the official State Board of Pharmacy
onsent form, filled in as approved by the institution's Committee on Human Research, maintain one copy
each completed and signed form in my files, and send another copy to the State Board of Pharmacy as
quired by Oregon law.

_____ _____
PRINCIPAL INVESTIGATOR DATE

RADIATION: Will subjects be exposed to radiation or radioisotopes? ___ Yes X No

If YES, the investigator MUST contact the Radiation Safety Office. The Committee on Human Research will withhold final approval until written approval by the Radiation Safety Committee has been received

Total dosage in rems: _____ Date submitted to Rad. Safety Committee: _____

CHARACTERISTICS OF STUDY SUBJECTS:

a. Patients X Volunteers ___

b. Age range: 18 to 70

c. Estimated number: 78

d. Affiliation or source of subjects, e.g., hospitals, outpatient clinics, general public, UOHSC students, etc.: Oregon Women's Correctional Center
2605 State St., Salem, OR. 97310

CONFIDENTIALITY OF SUBJECT DATA:

a. If research records which identify subjects will be kept, describe measures for maintaining confidentiality: completed interviews will be kept in locked file; subjects will be identified by number only; no corresponding number will appear on consent.

b. Will records which contain personal identification (i.e., name, address, Social Security number of subject) be transmitted outside this institution? ___ Yes X No

If YES, (1) Include a statement in the consent form that such data will be transmitted and to whom.

(2) Give name and address of recipient(s):

Name ___

Address ___

RISKS TO SUBJECTS:

a. Describe any physical, psychological, social, economic, or other risks to subjects, including discomfort or inconvenience:

NATURE OF RISK	SERIOUSNESS	INCIDENCE/PROBABILITY
discomfort from answering personal questions	minimal	occasionally
increased concern over physical health	minimal	occasionally

b. Precautionary measures to be taken to eliminate or reduce the risks:

Interviewer to be supportive during interview; subject may terminate interview at any time.

c. Measures to be taken if complications occur:

Mental health professional staff to be contacted and appointment set up for inmates with psychological discomfort; medical doctor to be contacted and appointment set up for inmates with increased concern over their physical health, if this should occur.

12. Describe the benefits that may be reasonably expected from the proposed activity to:

a. The subjects: More sensitive health care delivery to women prisoners.

b. The advancement of scientific-medical knowledge: add to body of knowledge of forensic nursing; assist prison health care providers in planning and implementing health care delivery.

13. If the study involves treatment, describe alternative treatment, including the benefits and risks:

None

14. The attached "FORMAT FOR INFORMED CONSENT" is offered as a guide in preparing an acceptable informed consent form. NIH requires, and therefore, the University of Oregon Health Sciences Center requires, that WRITTEN informed consent be obtained for ALL research procedures involving humans.

15. Are you a physician or dentist? ___ Yes X No

If NO, attach written assurance from the physician or dentist who assumes medical responsibility for the subjects, if applicable.

16. PROTOCOL: Describe the proposed research. Define abbreviations and symbols. The Committee on Human Research reviewers need:

a. ABSTRACT: Briefly outline objectives, methods and procedures.
b. SUMMARY OF PREVIOUS RELATED WORK: Include human and/or animal studies.
c. METHODS AND PROCEDURES: Describe in sufficient detail so that reviewers unfamiliar with the field may clearly understand what will be done with or to the subjects. If complete grant application is submitted, please list pages on which procedures involving human subjects are described.
d. INFORMED CONSENT FORM.

17. LIST ATTACHMENTS (please number):

18. INVESTIGATOR'S ASSURANCES:

a. I will promptly report proposed changes in the activity and any unanticipated problems involving risks to subjects, including adverse reactions, to the Committee on Human Research; and, in the case of DHEW-supported activities, to the Department of Health, Education, and Welfare (through the respective granting office).
b. I assure that documentary evidence of informed consent will be included in the medical files of the subjects after the proposed activity has been completed or discontinued.
c. Since the Committee on Human Research is obligated to periodically review this activity, I will furnish it with relevant information when requested.
d. I, the undersigned, will be responsible for the ethical conduct of this project, and for protecting the rights and welfare of the subjects.

Principal Investigator _____ Date _____

AN ABSTRACT OF THE THESIS OF

FAITH J. KNOX

FOR THE MASTERS OF NURSING

DATE OF RECEIVING THIS DEGREE: June 10, 1983

TITLE THE RELATIONSHIP OF THE PERSONAL HEALTH CONCERNS AND THE HEALTH CARE EXPECTATIONS OF FEMALE PRISONERS TO THEIR PERCEPTIONS OF HEALTH CARE DELIVERY IN PRISON

APPROVED: _____

BEVERLY HOEFFER, R.N., D.N.Sc., THESIS ADVISOR

The relationship between certain health concerns and health care expectations of female prisoners to their perceptions of prison health care delivery was explored due to the widespread belief among women prisoners that their health care is inadequate. The perceptions of female inmates regarding their health care appear to be related to their perceived difficulty in accessing health care before imprisonment, their comparison of the perceived availability of health services in prison versus the perceived availability of health services on the outside and to their perceived level of suffering due to separation from families and outside roles. In addition, it appears that the female inmate's health locus of control has some relationship to her feelings of physical impairment

as well as a slight relationship to her feeling of being denied health care in prison.

A correlational design was used to determine relationships between variables. Data were obtained through a Prison Health Interview which focused on inmates' perceptions regarding personal illness, institutional stress, health care accessibility, health care providers and levels of health care satisfaction. Data were also obtained through the Multidimensional Health Locus of Control Scales (Wallston & Wallston, 1978). Subjects were female inmates of a small state penal institution for women (N = 58) who were interviewed once during a six week period.

Nine hypotheses were tested; four were supported and five were unsupported. Additionally, one significant finding emerged for which no hypothesis had been written. Results are as follows:

1-) Inmates who perceive their access to medical care in prison as more difficult than their access to medical care before imprisonment were significantly more dissatisfied with prison health care delivery ($r = .42$, $p \leq .0005$).

2-) Inmates who feel more externally-controlled by powerful others in regard to their health reported significantly more physical problems ($r = .42$, $p \leq .0005$).

3-) Inmates who felt more internally-controlled in regards to their health perceived that they were denied medical care less often in prison ($r = -.24$, $p \leq .03$).

4-) Inmates who perceived that they have less health care than their cohorts on the outside were significantly more dissatisfied with prison health care delivery ($r = .27$, $p \leq .01$).

5-) Inmates who felt that they had suffered greatly by coming to prison reported that they had been denied available psychiatric care significantly more often than inmates who felt that they had suffered less ($r = .36$, $p \leq .002$).

It appears that the health locus of control construct may be of limited value in explaining inmates perceptions of health care delivery, but may be useful in explaining the inmates' perceived level of physical impairment. The inmates' perceptions of access and amount of health care available as related to prison health care satisfaction tend to support the idea that other health-related experiences can have a role in the thoughts and feelings that female inmates express about prison health care issues. This role appears to take on added significance when the female inmate perceives that she has suffered more by leaving her family and outside roles to come to prison.

The generalizability of findings is limited to female inmates of state prisons. The findings suggest that: 1-) both inmates and prison health care providers may need assistance in coming to a mutual understanding of expectations related to health service delivery; 2-) female prisons may need to be structured in such a way as to allow for more family interaction; and 3-) nurses need to be involved in more direct delivery of prison health care so that both access and quality of health care are increased.