

University of San Diego

Digital USD

Dissertations

Theses and Dissertations

1994-08-01

The Environment: Alive, Whole, Interconnected and Interacting

Dorothy Kleffel DNSc, MPH, BSN, RN
University of San Diego

Follow this and additional works at: <https://digital.sandiego.edu/dissertations>



Part of the [Nursing Commons](#)

Digital USD Citation

Kleffel, Dorothy DNSc, MPH, BSN, RN, "The Environment: Alive, Whole, Interconnected and Interacting" (1994). *Dissertations*. 246.

<https://digital.sandiego.edu/dissertations/246>

This Dissertation: Open Access is brought to you for free and open access by the Theses and Dissertations at Digital USD. It has been accepted for inclusion in Dissertations by an authorized administrator of Digital USD. For more information, please contact digital@sandiego.edu.

THE ENVIRONMENT: ALIVE, WHOLE, INTERCONNECTED AND INTERACTING

by

Dorothy Kleffel, RN, BSN, MPH

A dissertation presented to the
FACULTY OF THE PHILIP Y. HAHN SCHOOL OF NURSING
UNIVERSITY OF SAN DIEGO

In partial fulfillment of the
requirements for the degree
DOCTOR OF NURSING SCIENCE

PHILIP Y. HAHN SCHOOL OF NURSING
UNIVERSITY OF SAN DIEGO

August 1994

THE ENVIRONMENT: ALIVE, WHOLE, INTERCONNECTED AND INTERACTING

Abstract

Dorothy Kleffel, MPH, RN

Nurses frequently care for individuals whose conditions are related to destructive environmental influences. Although the environment is a central construct in the nursing paradigm, its definition is client oriented, circumscribed, and does not adequately explain situations emanating from the larger physical, social, cultural, political, or economic spheres of the environment. This research described an expanded, ideal, environmental nursing domain derived from selected upstream scholars whose work has addressed broad environmental dimensions. Using the concept of future search, once this idealized environmental domain is envisioned, the nursing profession can begin to discover the knowledge base that is needed in order to create an expanded environmental world view.

Combined qualitative data collection methods of individual field interviews using feminist approaches, and a focus group consisting of scholars who have addressed broad environmental dimensions related to nursing were used in this study. Data analysis was performed by using the constant comparative method which consisted of concurrent data collection and analysis.

The participants described an ideal environment as the entire planet which is alive, whole, interconnected and interacting. Within this planetary environment are numerous dynamic patterns, dimensions, and levels that are interconnected

and have open or indefinite boundaries. Because of the interconnections and interactions, any part of the planet that is unhealthy affects the entire planet adversely.

Recommended nursing actions included the use of nursing and ecofeminist paradigms to liberate the nursing profession and the environment from oppressive conditions. Steps to achieving liberation consisted of including the environment as the nursing client and redirecting nursing actions from downstream to upstream environmental activities.

The findings of this study have the potential for freeing nurses to expand their actions beyond the present limited environmental arena of the individual person. Using this enlarged conceptualization of the environment, nursing researchers, educators, and practitioners can address health issues within broad environmental dimensions in order to facilitate human well-being.

Copyright © 1994

Dorothy Kleffel

ALL RIGHTS RESERVED

ACKNOWLEDGMENTS

The completion of this dissertation represents the collective efforts, wisdom, and support of many people. I gratefully acknowledge their contributions.

My dissertation committee set high standards of scholarship and provided the knowledge, collegial support, flexibility and accessibility to achieve them. They reviewed various drafts of the dissertation, thereby keeping my endeavors on track. In addition to augmenting my education and research abilities, they have enriched my life.

Dr. Mary Ann Hautman assumed several roles as teacher, advisor and chair of my dissertation committee. Throughout the doctoral program she mentored, motivated, challenged, and asked questions in a manner that helped me to focus my efforts while addressing the seemingly ambiguous domain of environment. She gave invaluable counsel and strongly supported me throughout the dissertation process. I am greatly indebted to her and acknowledge her with deep respect and affection.

The second member of the committee, Dr. Diane Hatton, shared her vast knowledge of qualitative research while I was choosing the research methodology for this dissertation, thereby helping me to put together a unique combination of methods. I also thank her for reviewing, and urging me to apply for the American Nurses Foundation grant which was subsequently funded.

The third member of my committee, Dr. Kathleen Heinrich, was influential with the integration of my feminist perspectives into the dissertation. She reviewed my interview questions and made excellent suggestions for improving them. She also creatively

critiqued a presentation which formed the basis for a chapter of a book. Both the presentation and the book chapter were based upon this dissertation.

I thank Dr. June Lowenberg, formerly at the University of San Diego, who introduced me to qualitative research. It was during her course on Ethnographic and Field Research Design that I decided to use qualitative research methods for my dissertation. I deeply appreciate the interest and support that she maintained even after she moved to the University of Washington.

Two classmates were especially helpful with their suggestions and encouragement as we proceeded through doctoral education. Dr. Patricia Caudle and I spent many hours discussing our classes and dissertations while commuting to and from the University of San Diego. She continued her support after she accepted a position at the University of Arkansas. Dr. Felicitas dela Cruz encouraged me to enroll at the University of San Diego and familiarized me with certain aspects of doctoral education in a manner that only another doctoral student can do. She continued to give support to me after she graduated while I was conducting the research for this dissertation.

Earning a living while going to school was an important consideration for me. I thank Carol Lee, President and CEO of the Visiting Nurse Association of East San Gabriel Valley, for giving me flexible employment and providing emotional support throughout the doctoral program.

I am immensely grateful to the talented, innovative, and very busy upstream scholars who granted me interviews or attended

the focus group in order to participate in this dissertation. Needless to say, this study could not have been conducted if they had not been interested in this research and made themselves accessible to me. To me they represent the finest of a community of scholars who are willing to share their time and expertise. They have been an inspiration and their dialogue has extended far beyond my original interview questions. I hope that my dissertation efforts are worthy of their time and commitment.

I acknowledge the American Nurses Foundation for partial support for the travel and lodging of the participants attending the focus group. The encouragement and belief in this study by those associated with the Foundation was as important to me as the monetary assistance that they provided.

I thank my mother, Grace Kleffel, who offered solid emotional support and encouragement. Her sustenance and pride in my work helped to fortify me throughout the doctoral program and the dissertation process.

TABLE OF CONTENTS

	Page
Acknowledgments.....	ii
List of Appendices.....	vii
Chapter 1 THE PROBLEM.....	1
Introduction.....	1
Purpose of the Study.....	4
Research Question.....	4
Significance of the Study.....	5
Limitations of the Study.....	5
Summary.....	6
Chapter 2 REVIEW OF THE LITERATURE.....	7
Introduction.....	7
Definition of Environment.....	8
Environmental Theories and Models.....	10
Epidemiological Models.....	25
Ecological Models.....	28
Nursing's Environmental Domain.....	31
Ecofeminist Theoretical Perspectives and Assumptions....	58
Chapter 3 METHODOLOGY.....	66
The Participants.....	66
Data Collection.....	71
Data Analysis.....	76
Rigor.....	77

Chapter 4	THE ENVIRONMENT AS A UNITARY WHOLE.....	80
Chapter 5	CHARACTERISTICS OF THE UNITARY WHOLE.....	86
	Alive.....	86
	Whole.....	89
	Interconnected and Interacting.....	90
Chapter 6	THE PATTERNS WITHIN THE WHOLE.....	96
	Environmental Dimensions.....	96
	Levels of the Environment.....	106
	Environmental interactions.....	109
Chapter 7	NURSING ACTION: FROM OPPRESSION TO POWER...	115
	Liberating Nursing from Oppression.....	115
	Broadening the Definition of the Nursing Client...	135
	Directing Nursing Action to the Macro Environment.	140
Chapter 8	OTHER VOICES.....	158
	Limit the Definition of the Nursing Client.....	158
	Circumscribe the Focus of Nursing Action.....	160
Chapter 9	DISCUSSION.....	164
	REFERENCES.....	172

LIST OF APPENDICES

APPENDIX A.....195
 Table 1. Nursing Research Conducted in the
 Environmental Domain of Nursing
 Knowledge: 1961 - February 1994.....195

APPENDIX B.....196
 Participant Recruitment Letter.....196
 Response Sheet.....198

APPENDIX C.....199
 Interview Guide.....199

APPENDIX D.....202
 Committee on the Protection of Human Subjects
 University of San Diego.....202

CHAPTER I

The Problem

Introduction

Today our planet faces environmental disaster. Warfare; terrorism; global warming; depletion of the ozone layer of the atmosphere; pollution of all kinds; poverty; overpopulation; malnutrition, hazards in the work place, home, and school; violence toward women, children, and the elderly; lack of funding of important social and health programs; ageism, sexism and lack of human rights; are all aspects of an unhealthy environment that are reported by the media every day. Although nurses have a central position in caring for persons whose conditions are connected with environmental degradation, they have only a peripheral place in the formulation of social, political, and economic policies relating to the health and welfare of the population. Nurses' lack of involvement in major environmental concerns motivated me to ask: "What is the profession's view of the environment?"

The environment has been a major concept in the realm of nursing knowledge since the time of Florence Nightingale who was part of the great sanitarian reform movement of her day. She believed that nursing actions were to be focused on the environment, and emphasized the importance of

creating an optimal environment so that healing could take place (Nightingale, 1969). Modern nursing scholars still regard the environment as a major domain of nursing science. Yura and Torres (1975) identified the major concepts of Man, Society, Health and Nursing from a survey of the curriculum of baccalaureate nursing programs. Fawcett (1978) adapted the terms changing Man to Person and Society to Environment in order to avoid the use of a sexist term and to express more fully the ideas included in Society. Kim (1987) proposed a typology of four domains; Client, Environment, Client-Nurse and Practice. Although these domain classifications differ somewhat, they all included the environment as a central theme.

As important as the idea of the environment is to nursing knowledge, contemporary nursing theorists have not addressed it with the same depth and conviction of Nightingale (Meleis, 1991). Its definition remains ambiguous and vague (Ellis, 1982), the concept lacks conceptual unity (Kim, 1987), it has not been clearly articulated (Chinn & Jacobs, 1987), and little attention has been given to its development (Flaskerud & Halloran, 1980). Many of the major nurse theorists have not defined what they believe to be the environment (Flaskerud & Halloran, 1980; Meleis, 1991), and those that do, regard the environment as the immediate surroundings or circumstances of the individual which are to be managed or controlled or to which

people must adapt or conform (Chopoorian, 1986). Chopoorian pointed out that nursing's focus on the client (either individual or group) keeps nurses from altering and changing structures and relationships in the larger social, cultural, political, or economic spheres of the environment that are related to the origins of their clients' conditions. She believed that nursing must expand its consciousness of the environment to include these arenas for intervention and action.

Although most nurse scholars adhere to the circumscribed viewpoints described above, there are some who are currently incorporating global and upstream environmental perspectives in their work. Upstream interventions focus on modifying the broad social, economic, cultural, and political factors that have been shown to be the precursors of poor health. Such actions are aimed at altering environmental conditions for optimum well being. Society is the locus of change. By contrast, downstream interventions are aimed at changing or assisting the individual or group to adapt rather than altering the system itself. Implicit in downstream thinking is the blaming of the individual or group for their condition, and focusing on short term problem-specific solutions (Butterfield, 1990; McKinlay, 1986). Scholars in nursing who had included upstream environmental viewpoints in their work were selected as participants in this study.

Purpose of the Study

The goal of this research was a collective description and beginning substantive theory of an ideally conceived nursing environmental domain created by upstream thinkers. Presently, most nursing activities follow the medical model and are aimed at downstream endeavors. However, there are some upstream nursing scholars who have addressed broad environmental dimensions. This study made use of the thinking of these scholars to begin to explicate an expanded nursing environmental domain.

Research Question

The question that was addressed in this study was: What is the environmental domain of nursing knowledge that the profession wants to create? Since it is generally acknowledged that nursing's present understanding of environment is inadequate, the study investigated an ideal environmental domain as conceived by upstream nursing scholars. Heidi's (1985) concept of "future search" (p. 55) was used in understanding the intent. Future search, as opposed to re-search requires that we envision the world as we want it to be. Once we have this vision, we can begin to discover the knowledge base that is required to create this world. This study described an ideal environmental arena so that the profession can begin to discover the knowledge base that is needed to create an expanded environmental world view.

Significance of this Study

This study contributed to the development of an important construct of nursing's knowledge base. Although there is consensus that the environment is of major importance to the science of nursing, nursing's current focus on enhancing and maintaining the health of the individual, family, and community without attending to the broader environmental structures and relationships has (a) kept nurses from exploring the effects of environmental conditions on human well-being, (b) kept nurses from acting upon the origins of their clients' conditions, and (c) has kept nursing out of current mainstream environmental and social reform movements. This is in contrast to early nurse leaders who focused their practice on the environment and were the reform leaders of their time, e. g., Florence Nightingale, Lillian Wald and Lavinia Dock. The results of this study, if used, will assist the nursing profession to reconceptualize and reclaim its environmental domain in order to address these three points.

Limitations of the Study

It is inappropriate to use the criteria of quantitative research in the qualitative research approach (Strauss & Corbin, 1991). Therefore the findings of this research are not generalizable to other settings or replicable with other people. In addition, the environmental domain that is envisioned by the participants is one that is future

oriented, rather than present oriented. Accordingly, the findings are not in the current mainstream of nursing thought.

The beginning substantive theory that was constructed as a result of this study was developed from the perspectives of scholars who live in the United States and have addressed broad dimensions of the environment in relation to nursing. Therefore the findings represent the environmental views of only those scholars, and not the views of all nurses, other disciplines, or the public.

Summary

Nurses frequently care for individuals whose conditions are related to environmental factors. Although the environment is a central construct in the nursing paradigm, its definition is client oriented, circumscribed, and does not adequately explain these conditions. The goal of this study was to develop a collective description and beginning substantive theory of nursing's environmental domain from data collected from upstream nursing thinkers whose work addressed broad environmental dimensions. The use of this beginning theory can assist the profession to discover the knowledge base necessary to create its expanded environmental domain.

CHAPTER 2

Review of Literature

Introduction

Qualitative research is inductive. One does not begin with a theory and then prove or disprove it as is done in quantitative research. The theory is derived from the data. However, qualitative researchers do use established knowledge and a theoretical or epistemological framework to guide the research methodology (Morse, 1992).

Prior to entering the doctoral program, I held various conceptual understandings of the environment based on my education and experience as a public health nurse, as an environmental activist, and as a feminist. These ideas were enhanced and enriched in the doctoral program by the study of nursing theories, allied health environmental viewpoints, feminist theory and research, and ecological theory and philosophy, resulting in a synthesis that found a perspective in ecological feminism (ecofeminism). It is not possible to represent my thinking processes in a linear fashion necessary in a review of the literature. However, scholarly information is included in this chapter that inductively led to the use of ecofeminism to inform the research. Some of the literature has been previously described (Kleffel, 1991a; 1991b).

Definition of Environment

The word environment was first used in 1827 by Thomas Carlyle who created it from the English word environ which means surroundings or encirclement. Environ came from the German word umgebung which has the same meaning and was apparently coined by Goethe (Hendrickson, 1987).

The Random House Dictionary (1987) lists five current common meanings of the word environment.

1. The aggregate of surrounding things, conditions, or influences.
2. The air, water, minerals, organisms, and all other external factors surrounding and affecting an organism.
3. The social and cultural forces that shape the life of a person or population.
4. The hardware or software configuration of a computer system.
5. An indoor or outdoor setting that is characterized by the presence of environmental art.

Synonyms supplied by the dictionary are locale, environs, milieu, ambiance, setting, surroundings all which refer to what makes up the atmosphere or background against which someone or something is seen. Environment may refer to actual physical surroundings or to social or cultural background factors.

The definitions of environment listed above do not refer to an internal environment. Is there such a thing as

an internal environment? Scientific reference books are inconsistent on this point. Of the two scientific encyclopedias that I consulted, one discussed an internal environment, and the other did not. The Mc Graw-Hill Encyclopedia of Science and Technology (1987) defined the environment only in terms of all external influences to which an organism is exposed. Van Nostrand's Scientific Encyclopedia defined the environment as material factors and conditions surrounding the living organism and its component parts. The internal environment, which are the component parts, was considered the membranes and organization to which all of the organism's parts respond directly, whether or not they also have external contacts (Considine, 1983).

Health literature is also inconsistent regarding an internal environment. The epidemiological and ecological models which are discussed later in this chapter do not assume an internal environment. However, some of the nursing theorists and scholars do conceive of an internal environment.

King (1981) defined the internal environment as organ systems, cells, hormones, and inner thought processes. Levine (1973) described the internal environment as generating stimuli, interacting with, and influencing the external environment. Neuman (1989) identified the internal environment as an intrapersonal component and included it with the extrapersonal component as part of the external

environment. Johnson (1980) and Roy (1988, 1987) both noted that there is an internal environment, but did not specifically define it.

Environmental ideas are a culmination of philosophical, political, religious, and ethical thought. These theories and models are currently influencing the world view and actions of environmentalists.

Environmental Theories and Models

Merchant (1990) developed a taxonomy that summarizes the assumptions of Western culture regarding the natural world since the seventeenth century. The three approaches to environmental thought are egocentric, homocentric, and ecocentric. These approaches have been augmented by Miller (1991).

Egocentric Approach

The egocentric approach assumes that what is good for the individual is good for society. Its philosophical foundation is the mechanistic paradigm which can be traced from Plato, mainstream Christianity, Descartes, Hegel, George Berkeley, Hobbes, Locke, Adam Smith, Malthus, and Garrett Hardin (Miller, 1991). The mechanistic paradigm assumes that (a) matter is composed of atomic parts, (b) the whole is equal to the sum of the parts, (3) causation is a matter of external action on inactive parts, (4) quantitative change is more important than qualitative

change, and (5) the dualistic separation of mind/body and matter/spirit (Merchant, 1990).

An example of the egocentric approach is Hardin's (1977) "Lifeboat Ethics" (p. 262). Metaphorically each rich nation is a lifeboat of rich people. The poor, who are in overcrowded lifeboats, fall into the water and swim to the rich lifeboats hoping to be admitted. If the rich take all of the needy into their boat, everyone drowns. If no one is admitted into the rich lifeboat, survival in that lifeboat is possible. Hardin believed that sharing is suicidal. The problem with sharing is that no one is responsible for caring for what is held in common. Under a system of private property, the person (or group) who owns the property recognizes their responsibility to care for it, for if they don't, they suffer in the long run. For instance, a farmer will not overgraze his farm because of erosion and the long term damage. However, for land held in common, at least one independent herdsman will overgraze, resulting in mutual ruin. The way to handle areas that must be held in common is through mutual restraint or coercion. Hardin noted that every person born (or every life saved) in India stresses the Indian environment more severely and diminishes the quality of life for subsequent generations. Thus, by giving food to India, Americans are facilitating destruction of their environment. When a nation such as India outstrips its resources, population control methods may or may not be

instituted by that country. Food should be given only to those nations that successfully control their population. Hardin concluded that survival demands that we govern our actions by lifeboat ethics. Posterity will be poorly served if we do not.

The egocentric approach is limited because of its assumption that the individual good is the highest good that will ultimately benefit society as a whole, and that humans are fundamentally different from other creatures which they are to dominate and control. Ecocentrism also assumes that humans are naturally competitive and capitalism is the natural form of economics, resulting in the belief that ecology is external to economics and therefore cannot be adjudicated (Merchant, 1990; Miller, 1991).

Homocentric Approach

The homocentric approach is the utilitarian ethic (Merchant, 1990; Miller, 1991). Social justice rather than individual progress is the key value. Decisions are made based on the consideration of the greatest good for the largest number of people. Humans are considered stewards and caretakers of the natural world. Its philosophical foundations are both materialism and positivism. Its assumptions are (a) humans have a cultural heritage in addition to their genetic inheritance which results in their being qualitatively different from animals, (b) the determinants of human affairs are social rather than

individual, and (c) culture is a cumulative progress that can continue indefinitely. All social problems are ultimately soluble. Exponents of the homocentric approach include John S. Mill and Jeremy Bentham (utilitarian theorists); Barry Commoner (socialist ecology); Karl Marx and Mao Tse Tung (political theorists); and Randers and Meadows (limits to growth theorists).

An example of the homocentric approach was advocated by Karl Marx (Lee, 1980). The Marxist position is that humans have developed from nature and are a "part" (p. 11) of nature. Nature is not the "other" (p. 11) to be exploited or destroyed as is assumed in the capitalistic world view. Humans must overcome their alienation from nature. Marxists believe that the solution to environmental problems is doing away with the capitalistic system of production which causes those problems, and establish in its place a rational, humane, and environmentally unalienated, social order.

Western critics have noted that neither capitalist or socialist countries have overcome their alienation from nature and that environmental problems are just as great in communistic as in capitalistic countries. Merchant (1990) believed that the homocentric approach is basically anthropocentric in that humans are to manage nature for the benefit of the human species, not for the intrinsic benefit of other species.

Ecocentric Approach

The ecocentric approach is grounded in the cosmos. The whole environment, including inanimate elements such as rocks and minerals, along with animate animals and plants, is assigned intrinsic value. It is rooted in holistic rather than mechanistic metaphysics. It assumes; (a) that everything is connected to everything else, (b) the whole is greater than the sum of its parts, (c) meaning is dependent upon context, (d) biological and social systems are open, and (e) humans and nonhumans are one within the same organic system. Exponents of the ecocentric approach include Taoism; Buddhism; Traditional Native American philosophy; Thoreau; Gary Snyder; Theodore Rozak; Aldo Leopold; Rachel Carson; Fritjof Capra; deep ecology; the holographic model, and ecofeminism (Merchant, 1990; Miller, 1991).

I describe the ecocentric approaches in this section in greater detail than the egocentric and homocentric approaches, because the perspectives of most of the participants in this study were ecocentric in approach. The examples of ecocentric approaches that are discussed are some Eastern and Native American environmental world views, deep ecology, the Gaia hypothesis, and the holographic model. Ecofeminist theory, which is the theoretical framework for this study, is described at the end of the chapter.

Eastern environmental thought.

Eastern environmental themes exemplify the view of the world as a unified whole which is alive and conscious. Harmony and balance are emphasized. Interaction between all aspects of the environment with the parts being within the whole, and the whole being within the parts are described. Nonanthropocentrism is stressed. Humans are a part of the whole and should live in harmony and balance with all other parts of the planet.

A popular image for portraying the manner in which things exist is described from the Hua-yen school of Buddhism (Cook, 1989). From the great god Indra, there hangs a marvelous net that stretches out infinitely in all directions. There is a jewel in each eye of the net. Since the net is infinite in dimension, the jewels are infinite in number. It is an exquisite sight! When one jewel is selected and carefully looked at, all of the other jewels in the net are reflected. In addition, each of the jewels reflected is also reflecting all of the other jewels, so that there is an infinite reflecting process occurring.

This image symbolizes the cosmos in which there is an infinitely repeated interrelationship among all of the members of the cosmos. Thus the part and the whole are one and the same thing; for what we identify as a part is merely an abstraction from a unitary whole. There is no part and whole duality as in Western thought. This totalistic world

is a living body in which each cell derives its life from the other cells, and in return gives life to those others.

Cook (1989) pointed out that it is not enough to intellectually grasp the image in a theoretical way, but to make it real in our everyday experience. To perceive ourselves in this wondrous net, moving as one living organism implies caring for every aspect of the planet as our own body.

A Chinese philosophy that reflects the holistic qualities of the universe is Taoism. Cheng (1986) described the tao as embracing everything large and small in the universe and imparting a macrocosm of relationships in our environment. The tao is a totality as well as part of the totality pervading everything. Tao expresses itself as "ch'i" (p. 362) which is a vital force and energy and forms all things in the universe. The basic order inherent in ch'i is "yin and yang" (p. 363). Yin is passive, receptive, close-in, downward, soft, resting, and in the background. Yang is active, creative, open-ended, upward, firm, moving, and in the foreground. Together the yin/yang is a unity of differences called the "ta,i-chi" (p. 365) which is the great ultimate.

Cheng (1986) concluded that given those ideas, the Chinese notions of the natural environment are totalistic, phenomenalist, and organismic. One has to relate to all elements on the proper level of harmony. Otherwise, harmony

will be restored on a lower level in the form of an ecological breakdown.

Most Eastern philosophies, as illustrated above, incorporate an antihierarchical stance in their systems of thought. All aspects of the environment have equal status. For example, rocks, trees, the atmosphere, animals and humans all carry equal value. One exception is the Islamic religion. Islam maintains the human position on earth as dominant, similar to the Judeo-Christian tradition. However, in Western capitalistic and socialistic systems, the emphasis is on material progress at any cost. By contrast, in Islamic states, human activities are based on the idea that the world is a transitory abode, and that people must gain God's favor in order to find a better place in the other world. Human actions require justice, piety, knowledge, and an understanding of environmental problems. Human ecological behavior is regulated by specific rewards and punishment in the present world as well as the hereafter. God created the universe for the use of humans. But humans must work within the code of ethics or else earn God's wrath. It is the duty of Islamic leadership to control environmental activity in order to prevent deterioration. Islamic state authorities are delegated by God to take action against deviants according to the provisions from the Quraan and the Prophet Muhammad (Zaidi, 1981).

Themes of a unified, living, conscious, balanced, and interacting world are found in almost all Eastern systems of thought. With the exception of Islam, they are also antihierarchal and anthropocentric. Similar holistic themes are found in Native American traditional beliefs.

American Indian traditional beliefs.

Callicott (1982) noted that there are difficulties in universalizing the American Indian belief system because there are many different Indian cultures. However, some generalizations can be made.

The American Indian attitude was to regard all entities in the environment as having a consciousness, reason, and volition as intense and complete as humans. This included the earth itself, the sky, the winds, rocks, streams, trees, insects, birds and animals. This pervasive spirit in everything was considered a part of the Great Spirit which facilitated the perception of both the human and natural realms as being unified and akin. The Indian's social circle or community included all nonhuman natural entities as well as other humans.

Callicott concluded that the consequences of the American Indian enspirited world view of nature produced a harmony between Indians and their environment which restrained their killing of animals and gathering plants to that which was necessary for survival. Although there were examples of occasional destruction of nature during periods

of enormous cultural stress, the overall and usual effect was conservation of resources. The Indian cultural tradition was not altruistic, but it was in the Indians' own self interest to defer to nature which otherwise would withhold its sustenance or actively retaliate. The Western world view, on the other hand, resulted in a self interest of domination, alienation from, and unrestrained exploitation of nature.

The holistic environmental themes that are found in Eastern and traditional Native American world views originated in ancient times. Many modern ecocentric environmental approaches reflect these ideas.

Deep ecology.

Naess (1973), a Norwegian philosopher, criticized traditional ecology (an egocentric approach), which he dubbed "shallow ecology" (p. 95) as being only concerned with pollution control and resource conservation in the interests of people in developed countries. He argued that there are deeper concerns (hence the phrase deep ecology, also called radical environmentalism) which touch upon principles of diversity, complexity, autonomy, decentralization, symbiosis, egalitarianism, and classlessness. He listed seven principles of the deep ecology movement.

1. Rejection of the man-in-environment image in favor of a relational, total-field image. Organisms are viewed as "knots in the biospherical net" (p. 95).

2. Biospherical egalitarianism which extends the equal right to live and thrive to all living things.

3. Principles of diversity and symbiosis with an attitude of "live and let live" (p. 96) that includes human cultures as well as animals.

4. An anti-class posture which rejects the exploitation of some humans by others.

5. The fight against pollution and resource depletion, a fundamental concern of all environmentalists, must be considered together with the other six principles.

6. Complexity, not complication, which favors an integrated variety of means of living.

7. Local autonomy and decentralization. The more dependent a region is on outside resources, the more energy it requires to provide them.

Deep ecology derives its essence from some Eastern and Native American ideas, as well as feminism, John Muir, Heidegger, and naturalist literature (Devall & Sessions, 1985). Some critics have asserted that deep ecology is clouded with mysticism (Foley, 1988). However, Golley (1987) analyzed deep ecology from the traditional scientific ecological perspective and concluded that although some semantic problems exist (particularly with the ideas of self

realization and biocentric equality), conceptually deep ecology norms can be interpreted within scientific ecology's paradigm.

Some deep ecologists incorporate the Gaia hypothesis into their frame of reference, others believe that it is a separate paradigm. There are threads of wholeness and unity running through both, but they are treated separately in this study because each originated from quite different sources.

The Gaia hypothesis.

The modern Gaia hypothesis is reminiscent of the ancient living organic theory. This view of the environment was proposed by Lovelock (1979, 1988), an atmospheric chemist. Called the Gaia (Greek name for Earth Goddess) hypothesis, Lovelock saw the evolution of the species of living organisms so closely coupled with the evolution of their physical and chemical environment that together they constitute a single and indivisible evolutionary process. No clear distinction is made between living and non-living material. The planet's organisms act together as a unity to regulate the global environment by adjusting the rates at which gases are produced and removed from the atmosphere. However, Lovelock warned that the earth's ability to do this could be affected by either natural or human activity that forces the climate to a new and different stable state resulting in the elimination of all living organisms.

The idea of the planet's stable state in the modern Gaia hypothesis reflects the idea of harmony in ancient Taoist thought. In both notions, the balance of the environment of the planet must be maintained or ecological disaster will result.

The Gaia hypothesis is hailed by some as providing a new ecological world view (Sagan and Margulis, 1983), leading to a review of the way in which we look at ourselves and the environment (Hughes, 1985), and as a new way of perceiving our world (Abram, 1985). The most serious problem confronting widespread acceptance of the Gaia hypothesis by evolutionary scientists is the implications of foreknowledge and planning in Gaia's abilities to react to impending crisis and ward off ecological doom (Lovelock, 1986; Sagan and Margulis, 1983).

The holographic model.

The holographic paradigm is the idea that the universe resembles a giant hologram. A hologram is produced when a laser beam is split into two beams. One is bounced off of the object to be photographed. The other is aimed to collide with the reflected light of the first. Together they create a pattern that is recorded on film. When a bright light is shown through the film, a realistic three-dimensional image is projected. If you cut the film and show a bright light through the fragment, the whole image appears. The film can be repeatedly cut into smaller and

smaller pieces. Every fragment contains all of the information that is in the whole (Talbot, 1991).

Bohm (1980), a physicist and one of the early pioneers of the holographic model, believed that the universe is organized along holographic principles. Everything in the universe is part of a continuum, a seamless extension of everything else. There are no separate parts, just as a geyser in a fountain is not separated from the water from which it flows. However, the universe is not an undifferentiated mass. Things can still have their own unique qualities and still be part of an undivided whole. Similarly, consciousness is present in all matter in various degrees. The universe cannot be divided into living and nonliving things. All things are interconnected; like a hologram every portion of the universe contains the whole.

There are similarities of imagery between the holographic model and Indra's net. The giant hologram and Indra's net symbolize the cosmos. All parts of the hologram are interconnected; each jewel in Indra's net is connected with every other jewel. The parts of the hologram and each jewel of Indra's net reflect the whole. The whole of the hologram and the whole of Indra's net reflect each part or jewel.

Bohm (1980) believed that fragmentation is the cause of most of our present day problems. Applied to the

environment, one portion of the planet cannot be harmed without resulting damage to the entire planet.

As illustrated above, the ecocentric approach of the world as alive, whole, balanced, interconnected, and interacting is found in ancient Eastern and Native American ideas as well as in present day environmental perspectives.

However, the ecocentric approach has a number of philosophical difficulties. The central problem is finding a philosophically adequate justification for the intrinsic value of nonhuman nature. In mainstream Western thought only humans have intrinsic worth, while the rest of nature has instrumental value as a resource for humans. It is not considered wrong to kill the last of a species or use the last mineral if human survival is at stake (Merchant 1990).

Merchant concluded that, despite the philosophical difficulties in each; egocentric, homocentric, and ecocentric approaches have all received attention and have been further developed during the environmental movement of the last two decades. She believed that the above taxonomy could be useful in analyzing environmental positions assumed by interested parties.

How do the environmental theories discussed above compare with health professionals' concepts of the environment? Two conceptual models were identified in the allied health literature that addressed broad environmental dimensions; epidemiological and ecological models.

Epidemiological models

Public health science is based on epidemiology which is both a body of knowledge and a method. It is classified as a homocentric approach because of its emphasis on the health of populations rather than individuals. The classic epidemiological triad is comprised of the host, which is the individual of concern; the agent, which is the etiological factor; and the environment, defined as all that is external to the agent and host (Wigley & Cook, 1975). The three elements are bound together and each affects the other. The health of the individual or group depends upon the state of equilibrium maintained by this triad of elements (Benson and McDevitt, 1980).

Historically, in the United States, this model was applied to efforts to prevent, control, and treat infectious diseases. Although contagious diseases are still a major concern, epidemiologist and public health practitioners are shifting emphasis from infectious diseases to noninfectious diseases.

This shift has led to a modification and broadening of the model by some public health scholars. Wigley and Cook (1975) made semantic modifications; agency becoming causative factors, groups and their characteristics replacing host, with the definition of environment remaining the same.

Terris (1987) developed a more global modification and defined epidemiology as the study of health of human populations. He listed four aims of epidemiology; to determine the agent, host and environmental factors in order to prevent disease and injury and promote health, (b) to determine the relative importance of illnesses, disabilities, and death in order to establish priorities for research and action, (c) to identify areas of the population at greatest risk in order to direct action, and (d) to evaluate the effectiveness of health programs and populations. According to Terris, the conquest of noninfectious diseases using the epidemiological method is becoming a reality.

Dever (1980) believed that the classical epidemiological model is no longer applicable and argued that a change in belief systems must occur to prevent or arrest the current noninfectious disease patterns. He devised a holistic health epidemiological model for policy analysis that consisted of four categories; (a) medical care organization, (b) life style, (c) environment, and (d) human biology. He defined environment as external events over which the individual has little control and subdivided it into physical, social, and psychological dimensions. He believed that an application of this model in health policy analysis would result in an change of allocating resources

to existing problems by decreasing dependence on the medical system and more dependence on the self.

Dever placed great emphasis on the life style component of the model as a major contributing factor to present disease patterns and advocated changing "self pleasure" (p.28) and "hedonistic behavior" (p. 28) to healthy life styles in order to achieve wellness. Critics of those who over emphasize life style changes believe that "blaming the victim" (McKinlay, 1986 p. 494) focuses on individual behavior and fails to address the need to change social contexts that contribute to poor health.

There are other problems with the epidemiological models. McFarland (1985) commented that the focus of epidemiological studies is usually in the incidence and seriousness of the problem with little attention to the associated social or cultural forces. Chopoorian (1986) pointed out that demographics and mortality and morbidity rates used in the epidemiological model are analyzed from the individual or family's specific situation and are not viewed as part of the social-political-economic landscape. Another criticism of the epidemiological models is that mortality and morbidity rates are quantitative and thus lack a qualitative perspective. For instance, morbidity rates show only that a group of people are sick. There is no information as to the degree of their illnesses or the quality of their lives.

Some authors classify epidemiological and ecological models together. Others view epidemiological models as disease-oriented, and ecological models multidimensional and health-oriented. The latter is the perspective taken in this study.

Ecological Models

Two ecological models and some variations are discussed in this section, Hoyman's Ecological Model of Health and Disease and Bronfenbrenner's Model of the Ecology of Human Development. Both have a comprehensive, unitary theme and address the environment from a multidimensional perspective. They are classified as ecocentric approaches because of their holistic motifs.

Hoyman's (1975) description of an ecology model depicts basic dimensions of health that dwell within each other: physical fitness, mental health, social well-being and spiritual faith; with basic interacting determinants of health and disease: heredity, environment, experience, and self. It is based on the postulate that favorable ecological factors tend to push one up into the zones of wellness and health; and unfavorable ecological factors tend to push one down into the zones of disease and death.

Bronfenbrenner's (1977) model of the ecology of human development directed attention to both individual behavior and environmental determinants. The environment is nested into microsystem, mesosystem, exosystem, and macrosystem

levels of influence. The microsystem is a complex of relations between the individual and his or her immediate setting such as the home or work place. The mesosystem is the system of microsystems and refers to interrelations among various settings involving the individual, such as social groups and the church. The exosystem is an extension of the mesosystem and consists of specific social structures that impinge upon the immediate setting in which the person is found, such as the mass media and agencies of the government. The macro system refers to the overarching patterns of the culture such as economic, social, educational, legal, and political systems.

Belsky (1980) critiqued Bronfenbrenner's model for its failure to account for individual differences. He added Tinbergen's (1951) concern for ontogenic development (what the individual brings to the setting) to the model in order to formulate his framework for child maltreatment. The framework consists of four levels of analysis concerning the etiology of child abuse and neglect. The levels are; (a) ontogenic development, which is what the parents bring to the family setting; (b) the microsystem, the immediate family setting; (c) the exosystem, the social structures such as work and the neighborhood; and (d) the macrosystem of values and belief systems which subsumes and influences the other stages.

McLeroy, Bibeau, Steckler, & Glanz (1988) proposed a framework for health promotion based on Bronfenbrenner's and Belsky's model. In this model individual and social environmental factors are targets for health promotion interventions. Behavior is viewed as being determined by; (a) personal characteristics such as knowledge, attitudes, and self-concept; (b) primary and social support systems such as family, coworkers, and friends; (c) organizational settings such as day care settings, schools, and workplaces; (d) community and social resources such as churches, health and social organizations; and (e) public policy such as regulatory policies, procedures, and laws which create environments that elicit health responses from people.

The ecological models assume that appropriate changes in the environment will produce changes in individuals, and the support of individuals is essential for implementing environmental changes. Health education, promotion, and interventions can be targeted for any level. The more levels that are involved, the more effective are the results.

The epidemiological and ecological models were the only theories that I located in the health literature that addressed broad multidimensional environmental characteristics. They reflected the environment as a focus of change rather than the individual. How do the

epidemiological and ecological models compare with nursing's concepts of the environment?

Nursing's Environmental Domain

History

The first nursing leaders had a broad view of the environment and considered environmental issues as essential aspects of the nursing realm. The environmental perspectives of three early nurse leaders are discussed.

Born in 1820, Florence Nightingale was profoundly influenced by the sanitary reform movement of her day and maintained an inflexible belief system about sanitation and cleanliness that never altered, even though the discovery of bacteria that caused specific diseases occurred during her lifetime (Cook, 1914; Palmer, 1983). She maintained that control of the environment was essential for the restoration of health. She considered her model of improved nursing as but one part of the sanitary movement; and all for the enhanced health of the British soldier (Baly, 1986).

Nightingale had a comprehensive view of the environment as the immediate surroundings of the individual, the home and community, and as broad social, political, and economic contexts. Aspects of the immediate surroundings of the client were pure air, pure water, efficient drainage (sewage), cleanliness, light, warmth, quiet, and a proper diet. She advocated music, beautiful objects and a view, diverse activities, and a small pet (Nightingale, 1860/1969).

Nightingale's community concerns included proper disposal of waste and sewage, irrigation and water supply, the removal of dung heaps, overcrowding, and improved housing. She used an epidemiological approach to the health of the community, noting increased mortality rates in specific districts and suggesting sanitary measures be focused in those areas (Nightingale, 1860/1969).

Nightingale understood the necessity of addressing the broad social, economic and political aspects of environment in order to effect the health of individuals. Famine, pauperism, woman slavery, penitentiary reform, and the protection of wild birds were some of the broad environmental issues with which she concerned herself (Bishop and Goldie, 1962). Nightingale used politics in order to effect social change. She was well born with influential friends and acquaintances, including the Queen, in the political structure of Great Britain. She was a popular national heroine because of her work in Crimea. However, as a woman with the limited social choices that existed during Victorian times, she had formidable barriers in carrying out the reforms that were so badly needed. Therefore she worked behind the scenes and used her powerful contacts in order to achieve social transformations (Palmer, 1982, 1984).

An early American nurse whose beliefs and practice were also directed toward the environment for the betterment of

human beings was Lillian Wald who was born in 1867. In America, during Nightingale's lifetime, nearly 30 million immigrants flocked to United States resulting in multiple social and economic problems. Cities were plagued by overcrowding and recurring epidemics of typhus, scarlet fever, smallpox, and typhoid fever. Tuberculosis and other contagious diseases were rampant. Because of rapid immigrant growth huge tenement houses were built without surrounding parks or open space. Cities did not have proper sewage and disposal of refuse. Rubbish was thrown into gutters and garbage allowed to accumulate in alleys and backyards. Dogs ran feral in packs and rats lived under the wooden sidewalks. Hogs roamed freely and acted as scavengers (Kalish & Kalish, 1978).

To help alleviate the vast environmental problems of her day, Wald founded the Henry Street Settlement in New York, and directed the Henry Street Visiting Nurse Service; originated the ideas for the United States Children's Bureau; school nursing, and rural nursing in the Red Cross Town and Country Nursing Service; helped to secure changes in child labor laws, improved housing, parks and playgrounds, and pure food laws; upgraded classes for the mentally handicapped children; influenced the passage of enlightened immigration laws; and introduced a visiting nurse service for the policy holders of the Metropolitan Life Insurance Company. During this time, Wald actively

opposed political and social corruption at all levels (Christy, 1984b; Kalish and Kalish, 1978).

Lavinia Dock, born in 1858, addressed the political environment of her time. She concluded that nurses could not exert influence and change laws until they had power to wield. The power was the ballot. She was an ardent suffragist, campaigned actively for changes in labor laws, and joined Lillian Wald at the Henry Street Settlement where many innovative health and social programs were established (Christy, 1984a). She urged the national nurses' organization to make itself a political and moral force on all of the great social questions of the time (Nelson, 1988).

These three nurses targeted their interventions toward what we understand as the physical, social, political, cultural, and economic environment; although the word environment was not in common usage at that time. How do the ideas of our early nurse leaders compare with the thinking of present day nursing theorists?

Major Nurse Theorists

Overall, the major nurse theorist's perspectives of the environment are not well defined and are mostly limited to the immediate client-nurse relationship. Their ideas of the environment reflected factors such as the time period the theory was developed; the paradigmatic origin, and central concepts of their theory. Meleis (1991) classified

theorists who developed their theories between 1950 to 1970 as needs theorists, interaction theorists, and outcome theorists.

Needs Theorists

The needs theorists viewed factors in the environment as something to be managed to fulfill patients' needs and enhance their well-being. Abdellah (Abdellah & Levine, 1986) viewed the environment in relation to meeting patients' needs and identifying nursing problems. The environment was considered to be factors influencing patient's impairments.

Henderson (1964) considered nursing primarily as complementing patients by supplying what they need in knowledge, will, or strength to perform their daily activities. She did not define environment, but several of her basic nursing components involved assisting the patient by controlling environmental factors. She addressed broad environmental factors such as pollution and poverty in a later publication (Henderson & Nite, 1978), but regarded the role of the nurse in addressing these issues as a "citizen" (p. 830) rather than an integral part of professional practice.

Orem (1980) viewed the environment as elements external to the individual that are regulated by the self care agent for continued existence, health, and well being. She (Orem, 1991) identified 10 basic factors, one of which was

environment, that affect the individual's ability to engage in self-care. Human environment was understood and analyzed in terms of physical, chemical, biologic, and social features.

Interaction Theorists

The interaction theorists regarded factors in the environment in terms of the nurse-client interaction that is used to achieve nursing goals. King (1971) viewed the maintenance of health as dependent on the external and internal environment working in harmony and balance. External environmental factors are physical, biological, and social. Internal environment is organ systems, cells, hormones, and inner thought processes in all their unique interaction. Nurses are part of the environment and control environmental factors to achieve nursing goals.

Orlando (1961) did not define environment, but seemed to consider it only in terms of the patient's immediate surroundings. She noted that a patient may react with distress to any aspect of an environment which was designed for therapeutic and helpful purposes and described such situations, concluding that it is the nurse's responsibility to ease the distress by the use of the nurse-patient relationship in order to change the environment.

Paterson & Zderad (1988) considered nursing as a dialogue that takes place with the client in the context of the "real world" (p. 31). The real world (environment)

consisted of humans and things in space and time interacting with the community.

Peplau (1952) stressed the interpersonal process as central to nursing and considered the interpersonal situation itself as an environmental microcosm. Culture, mores, and the treatment milieu were factors to consider when dealing with the individual.

Travelbee did not define environment, but according to Chinn and Jacobs (1987), she viewed society and the environment as the context in which human to human relatedness is established.

Weidenbach (1970) considered the environment as a framework consisting of a conglomerate that includes objects, policies, setting, atmosphere, time of day, humans, and happenings that may be in any time frame.

Outcome Theorists

The outcome theorists conceptualized the outcome of nursing care in terms of balance and harmony, then proceeded to describe the recipient of care. Johnson (1974, 1980) described the person as a behavioral system consisting of seven subsystems. She did not define environment, but indicated that needs and stimuli came from the environment which stimulated subsystem response of imbalance or nurturance.

Levine (1969) believed that the individual is in constant, dynamic exchange with the environment which is

both external and internal. This exchange is perceptual (what we sense), operational (things that affect us physically, and conceptual (spiritual, language, and thought). The nurse is part of the patient's ecosystem and much of nursing care is devoted to restoring the symmetry of the patient's response to environmental stimuli by facilitating adaptive change to the environment (Levine, 1967).

Roger's (1970, 1980) science of unitary human beings' theory focused on the interaction between humans and environment. According to Meleis (1991), it is impossible to think of the environment as a central concept in nursing without thinking of Rogers. Rogers believed that neither humans nor the environment could be considered in isolation and defined them as unitary and irreducible four dimensional (later changed to pandimensional [Rogers, 1992]) energy fields that are identified by pattern and organization that are coextensive with the universe. Humans and environment are integral with one another, continuously exchanging matter and energy.

Although Rogers placed great emphasis on human-environmental interaction, her theory was critiqued by Meleis (1991) as being abstract and not readily usable for practice or research. Kim (1983) stated that Roger's conceptualization of environment is confusing because both human and environmental systems are expressed as energy

fields which have not been differentiated, yet nursing action is to be focused on the human energy field.

Roy (1987) defined the environment as all internal and external conditions, circumstances, and influences surrounding and affecting the development and behavior of individuals and groups. Stimuli emanate from the environment and are categorized as focal (immediately confronting the person), contextual (all other stimuli present), and residual (beliefs and attitudes which impinge upon the situation). The purpose of nursing is to enhance the adaptation of the patient to environmental stimuli. She (Roy, 1988) believed that the science of nursing focuses on human life processes as the core knowledge to be developed. These life processes are mutually interactive with the total ecology. Meleis (1991) critiqued Roy's adaptation model for its lack of concept boundaries which severely limits the theory's framework for understanding person-environment interactions.

Later nursing theorists

Two theorists who developed their ideas after 1970 were not classified by Meleis in the above categories. They are Neuman and Parse.

Neuman (1989) had a systems orientation and defined the environment as all internal and external factors or influences surrounding the client system. The client and environment are constantly interacting by input, output, and

feedback in circular manner so that they influence each other. She developed a typology of three environments; the external environment that exists outside the client; the internal environment that exists within the boundaries of the client or client system; and the created environment that supersedes and encompasses both the external and internal environments. The created environment is a concept unique to Neuman and consists of unconscious knowledge such as self-esteem, beliefs, exchanges, client system variables, and predisposition. The created environment is process based and functions to increase or decrease the wellness level. The goal of the nurse is to bring about or maintain the client systems stability.

Parse (1987) was influenced by Rogers and expanded the concept of environment. She differed from Rogers in that she believed that a person is an open being rather than an energy field. She considered a person as cocreating and interchanging with the environment with freedom to choose the patterns of relating. Humans and environment are distinguishable from each other, but each is a participant in the creation of the other.

In sum, the major nurse theorists have not addressed the broader social, cultural, environmental, economic and political aspects of the environment. With the exception of Rogers, they generally regarded the environment as the immediate surroundings or circumstances of the individual,

or as an interactional field to which individuals adapt, adjust or control. Some alluded to the complexity of the environment, but their perceptions of it were vague. The environment was always defined in terms of the individual person rather than in terms of its own essence and intrinsic value. This egocentric view of the environment is a change of perspective from the early nurse leaders, previously discussed, who were more homocentric in their thinking and intervened within extended and global environmental realms.

This review of the major nurse theorists' environmental perspectives leads to the conclusion that nursing theory does not adequately describe its environmental domain. Because nursing environmental theories are circumscribed, it would be expected that nursing environmental research is also conducted within limited dimensions. A literature search revealed that almost all nursing research conducted in the domain of environment involved only the immediate milieu of the patient, family, or the nurse.

Nursing Environmental Research

To determine the dimensions of environment that nurse researchers have studied, an update of a previously reported literature search (Kleffel, 1991b) was made. The search was manually conducted using the Cumulative Index to Nursing and Allied Health Literature (CINAHL) to locate articles reporting the results of nursing research dealing with environment. The search, including the update, was from

studies published from 1961 through February 1994. Key words searched varied from year to year depending on the organization of categories. Typical words searched included environment, environmental exposure, environmental monitoring, environmental pollutants, ecology, social environment, milieu and any referent words listed under these categories. Seventy-six nursing research articles addressing the environment were identified.

Seventy-five of the articles addressed the immediate environment of the patient or client, family, or nurse. Of these, 52 (69 percent) focused on institutional environments, e. g., hospitals, mental hospitals, long term care facilities, academic institutions, the work place (other than a health institution) and a jail. Fifty-five addressed the environment from patient/clients' perspectives, while 21 addressed the environment from nurses' perspectives. Twelve studies involved the patient's immediate home environment, and three were performed in a laboratory involving the immediate environment of the client. Six addressed the local community.

Insert Table 1 about here

Only one study addressed the social-economic-political contexts of the environment. McFarland (1985) designed an ecological approach to identify and quantify environmental

variables related to acute infection among children in Chile. She found that 40 percent of the youngsters harbored one or more infections. Indigenous children of the highlands had infection rates 50 percent higher than those of Spanish descent living near the coast. The author concluded that child health cannot be improved independent of changes in the environment. The provision of traditional prevention programs such as school feeding programs, immunization campaigns and prenatal care, without simultaneous attention to physical, biologic, sociocultural, and political-environmental variables are an inappropriate use of time, personnel, and money.

McFarland's study is an example of nursing research that can be performed to analyze broad environmental characteristics contributing to health; but it was the only nursing research study located that addressed health from larger environmental dimensions. Most nursing research is limited because it not designed to look beyond the individual or immediate family for health indicators. Environmental conditions relating to the prevalence, severity, and duration of adverse health are often unknown. Also unknown through nursing research are environmental factors that enhance individuals' and groups' well being.

Nursing's theoretical thinking and research do not provide an adequate knowledge base for the profession

because of its lack of development of its environmental domain. Palmer (1986) asks:

Where is the knowledge base of how the profession deals with the totality of the environment, the global influences which swirl about clients and affect every aspect of their lives...the politics, policies, crime, legislation, and economics which determine quality of life, affect longevity, and establish or impede wellness (pp. 18-19)?

She suggested that a rereading of Nightingale's monumental works would set nursing upon a productive path for knowledge development.

Upstream Nursing Environmental Concepts

There are some nurse scholars' work located in the literature who are incorporating global and upstream perspectives in their work. Examples are caring concepts expanded to include the environment, critical social nursing, nursing epidemiological models, nursing ecological models, and feminist approaches.

Expanded Caring Concepts

Caring theories in nursing have mainly been conceptualized only in human terms and have not included the environment. For instance, Morse, Solberg, Neander, Bottorff and Johnson (1990) reviewed 35 nursing authors' definitions of caring and identified five epistemological perspectives; caring is a human state, a moral imperative,

an affect, an interpersonal relationship, and a nursing intervention--all human attributes and actions that do not include the environment. However, recently there have been some attempts to extend caring theories to include the environment.

Watson (1990) wrote that caring stretches from individual to global concerns. Micro level caring, the traditional caring of nurses, contributes to the health and healing of individuals; while macro level caring contributes to the preservation of humanity. Quantum caring, which is finding and detecting order rather than seeing only the parts, offers a counterpoint for the chaotic forces in the universe. She maintained that caring is not a core value guiding health policy or health care actions because of a male-oriented world view politic and believed that the caring of nurses can emerge as a lasting force that will revolutionize health care policy and politics.

McCarthy, Craig, Bergstrom, Whitley, Stoner, and Magilvy (1991), noted the growing awareness of global interconnectedness and proposed that caring be extended beyond the individual to the environment. The environment then becomes the nursing client and an entity that must be cared for in order to promote health.

Smith and Whitney (1991) redefined the client's personal environment as extending beyond the bounds of current health assessments and nursing care plans to include

the biosphere itself. Treating the client will not only require assessing environmental factors affecting the client, but also considering the client's effect on the environment. This is because the environment in turn affects the client's health.

Williams (1991) believed that for health promotion; social activism is the substance of caring itself. The promotion of health requires caring about the effects of social, political and economic dimensions of the environment on the health of people. Caring is viewed as activism aimed at conditions and resources necessary for health. Williams stated that for nurses to perceive this broad level of advocacy as a primary nursing function, a broader view of what constitutes nursing practice is required.

These are isolated examples of expanded caring ideas. There is a paucity of nursing literature linking human caring theories with environmental concerns. Schuster (1990) conducted a international literature search of the categories of caring, nursing and environment and found 20 citations from the past 10 years. Only five were from nursing journals, and none reflected the larger social-economic-political arenas. She speculated about the scarcity of linkages between caring theory with the needs and claims of the environment. She proposed five major reasons: (1) caring as a theory in nursing is new, (2) it may be unrealistic for the caring model to accommodate

..

environmental exigencies, (3) anthropocentrism: the notion of human caring does not allow for nonhuman interchange of care, (4) the intellectualization of caring may be at the expense of experiencing caring, and (5) nursing's unilateral and elitist ownership of human care and caring. Schuster questioned whether this is an adequate representation of nurses' systematic reporting of their environmental work and stated that the profession may want to redirect its efforts in these ecologically troubled times.

Critical Social Nursing

The fundamental goal of critical social theory is to establish the conditions for open, unconstrained communication. This entails exposing hidden power imbalances that inhibit free discourse (Allen, 1985). Critical social nursing, which is derived from critical social theory, attempts to describe and explain oppressive environmental effects on health. This is accomplished by uncovering the relation of dominance and by demystifying the ideology that rationalizes unequal power relations. Nurses, using critical social theory, are able to analyze environmental constraints upon health and freedom. They are willing to enter into dialogue with persons who are oppressed in order to facilitate their identification of environmental problems with which they struggle, and to plan appropriate action (Stevens, 1989).

Nursing epidemiological approaches

The environment is a central concept for both public health science, which is based on the epidemiological model; and the nursing model. However, its meaning differs significantly between the two. Nursing theory generally views the client as interacting with environmental factors that facilitate or inhibit health. The epidemiological model focuses on environmental factors that cause disease, increase its risk, or promote well being. Although using slightly different terminology, both the American Nurses' Association (1986) and the American Public Health Association (1982) define public health nursing as a synthesis of public health science and nursing science focused on aggregates.

Community health nursing scholars have attempted to find a way of combining nursing theory with the epidemiological model for community health nurse education and practice. One of the first to recommend synthesizing the two was Archer (1982) who described the content of community health nursing preparation at the baccalaureate and graduate level. Synthesis has proven difficult because of the apparent incongruence between the two perspectives. Nursing's paradigm focuses on health, well-being, and optimal functioning. The focus of public health science and the epidemiologic model is illness and its prevention (Hanchett & Clarke, 1988).

Defining the concepts and assumptions of the discipline of community health nursing, and organizing knowledge relevant to its unique focus has been identified by some community health nurse scholars as essential for the field to progress. Hamilton and Bush, (1988) wrote that there is a lack of theory development specifically for community health nursing. They believe that theory development has been retarded because of a lack of attention to the underlying assumptions of community health theorists and researchers. They recommended that the assumptions regarding the following questions should be made explicit by those who develop community health nursing theory.

1. Who is the client of the community health nurse?
2. What is the difference between community health nursing and generic nursing?
3. What is the difference between community health nurses and other community health disciplines?

Schultz (1987) performed a concept analysis on the term "aggregate" and concluded that it means a statistical summing of entities and therefore is incompatible with nursing domain concepts because it does not denote interaction. She suggested extending the meaning of "client" to include pluralities of persons such as families, groups, organizations, and communities.

Goepfinger (1988) commented that attempts to describe the community as the nursing client has not been readily

accepted. In a more recent publication, Goepfinger and Shuster (1992) defined community as a ... "locality-based entity, composed of systems of formal organizations reflecting societal institutions, informal groups, and aggregates" (p. 254). The definition included personal, spatial, and functional dimensions and recognized interaction among the systems within a community. The authors noted that when the individual and family are the focus of practice, they are the nursing client even when the care is given in the community setting. The community is the client only when the focus is on the collective or common good.

Hanchett & Clarke, (1988) stated that the concepts of the epidemiologic model (agent, host, and environment) reflect the focus of disease prevention of public health science. Disease is not included within the nursing domains of person, environment, health and nursing. Consistency with the nursing metaparadigm will require the reformulation of epidemiological concepts to be compatible with the nursing concepts of person and environment, replacing the concept of illness with that of health, and using methods of studies of aggregates. Laffrey, Loveland-Cherry, & Winkler, (1986) suggest incorporating disease prevention within nursing's health domain because disease is one of a number of factors that may affect health.

Some community health nurse theorists are beginning to synthesize public health and nursing theories and models. McKay and Segall (1983) developed four models for graduate programs in community health nursing: (a) an aggregate model that targets the health of the community, (b) an aggregate/administration model that targets the nursing unit, (c) an aggregate model that targets family and groups, and (d) an individual model that targets individuals' health. When evaluating the implementation of the aggregate/family and group model, they (Segall, & McKay, 1984) identified the need for incorporation of nursing theory necessary for practice, and the need to identify the link between the concepts of aggregate and community as a theoretical basis for practice.

Muecke, (1984) developed a community health diagnosis model that consisted of an expanded epidemiologic triangle of health/illness problem, population characteristics, and environmental characteristics; combined with a nursing diagnosis method of identification of the problem related to etiologic factors, as manifested in community signs and symptoms.

Storfjell & Cruise (1984) designed a model of community focused nursing developed from a survey of community health nursing educators, graduate students, and practitioners; in order to define the scope of community health nursing practice. The model's dimensions consisted of client-

oriented services, aggregate needs identification, and aggregate planning and interventions.

Goeppinger and Shuster (1992) developed a model using the nursing process (establish a contract or partnership, assessment, planning, implementing interventions, and evaluating interventions) to use when the community is the client.

Clark (1992) described an epidemiologic prevention process model that combined Dever's (1980) epidemiologic model with public health concepts of levels of prevention (primary, secondary, and tertiary) within the nursing process framework (assessment, nursing diagnosis, planning interventions, implementing the plan, and evaluating) for community health nursing practice.

A variation of population-based nursing was proposed by Milio (1976) that took into account variations among subgroups and the relationship between the total environment and the health of populations. Milio maintained that the range of health choices is shaped, to a large degree, by policy decisions in both private and governmental organizations. Rather than targeting efforts to change individual health behavior, she advocated interventions directed at the national policy making level. Health promoting choices must be more readily available and less costly than health damaging options if a society is to improve its health status. She noted that many low income

individuals are acting within the constraints of their limited resources and choices and that items such as cigarettes and sugar are readily available to the poor. She charged nurses to redirect their energies to foster a health sustaining environment.

Of central importance to the issue of the synthesis of public health science and nursing science is the concept of aggregate or population-focused nursing. Fry (1983, 1985) believed that with the epidemiological model the needs of aggregates are considered in order to provide benefits to population groups. This does not align with nursing's traditional highly individualistic respect for client autonomy. In other words, nurses are attempting to integrate egocentric with homocentric approaches. This raises the question of nurse accountability. Is the community health nurse then to be accountable for the aggregate good and a reduction in the community's morbidity and mortality rates, or should she be concerned with individual good that would protect patient rights to the detriment of the community? Fry (1992) believed that the community health nurse must balance the two paradigms (individual rights versus the common good) by the use of an ethical decision making process.

Nursing's epidemiological models have elements of upstream thinking with its concern for the community environment and its emphasis on the relationships between

environmental conditions and people's well being. However, some models have adopted the same problems identified with the public health science epidemiological models; the emphasis on morbidity and mortality with little attention to contextual forces, demographic information are analyzed from the individual's specific situation and not viewed as part of the broader social-political-cultural and economic landscape, and an overemphasis on lifestyle resulting in blaming clients for their conditions.

Nursing Ecological Approaches

Ecological approaches in nursing are based on population focused nursing which broadens the concept of human response to include societal phenomena and includes the idea of practice directed to the environment (White, 1984). The antecedents of nursing ecological approaches originated from the allied health literature, and are discussed in public health nursing literature.

McFarland (1985), in her study of Chilean children at risk for infection that was previously discussed, devised an ecological model that related the biological, physical, sociocultural, and political-economic environments to the presence of acute morbidity. Layered within the environments were four subsystems; child, family, community, and nation. Both the subsystems and the environmental systems were conceptualized to be in a constant state of interaction and intraaction. Enumerating

the variables within the systems and measuring the interaction among them was the key to operating the model.

Milio (1988) developed an ecological framework for policy making. She believed that a new public health is emerging that views human health in ecological relationship with all else, including both natural and human-made habitats. She noted that public policy sets the ranges of possibilities for the choices made by the public that can nurture health or impact it negatively. Therefore we must learn to design public policy that promotes health. The ecological framework of policy-making developed by Milio included defining the social climate, key players, and strategic action. She recommended data collection methods and indicators to describe and analyze the scene and players in policy-making process.

Nursing Feminist Approaches

There are nurse scholars who have been urging the profession to integrate feminist ideology into nursing knowledge. Chinn (1985) defined feminism as a world view that values women and confronts systematic injustices based on gender. She believed that a major contribution of feminist thinking in relation to nursing is the basic tenet --that women are oppressed. Roberts (1983) analyzed nursing according to an oppression model and concluded that nurses are an oppressed group because they lack autonomy, accountability, and control over the their profession. She

recommended that nursing recognize the existence of oppression and rediscover the cultural heritage of nursing in order to determine the right of nursing to develop its own destiny.

MacPherson (1983) recommended a paradigm shift in nursing research that will make women visible. Characteristics of feminist research are that it includes participant observation, small samples, in-depth interviewing, and gender-neutrality. Research problems chosen are of significance to women, interviewing is non-hierarchical between researcher and participant, decision making is consensual, and methodology will be laid bare so that others can question and reinterpret results. Results of the research are published in both professional and popular journals so that all women can benefit.

Watson (1985), although not labeling it feminist, suggested new methodological approaches for the development of nursing knowledge that are compatible with feminist ideas. Her paradigm transcending methods include the use of holographic methods; literary descriptions; reflections on original art and its meaning; photographic documentaries; analyses from literature; and the use of music, dance, performing arts, and other creative works.

Meleis (1987) developed four "ReVisions" (p. 5) of nursing knowledge, one of which was gender-sensitive knowledge. She noted that nursing research is beginning to

include topics of significance to women, e.g., menopause, rape, osteoporosis, battered women and children, and the support of chronically ill lesbian women.

Chinn (1987), in response to Meleis's article acknowledged that feminist ideas are revolutionary and not consistent with the status quo. She developed four nursing ideals based on feminist ideals: First, nursing values and endorses health; second, critiques health-care practices that endanger health and reduce the quality of life; third, challenges a health-care system that is dehumanizing; and fourth, focuses on approaches to care that create individual wholeness and health based on a respect of all forms of life. Chinn (1989) believed that by bringing feminist thought and nursing patterns of knowing together, a revolution in the health care system can be effected.

Nurse researchers are beginning to develop distinctive feminist nursing research methodologies. For example, Hall and Stevens (1991) addressed the issues of rigor in feminist nursing research; Anderson (1991) used a feminist perspective during fieldwork interviews in her study of women with diabetes; Parker and McFarlane (1991) used feminist research criteria as an empowerment model in their study of the effects of physical abuse during pregnancy; Thompson (1991) used participatory feminist research in her study of gender and culture with Khmer refugee women; Skillings (1992) used feminist, emancipatory, and

participatory research methods in her study of nurses' perceptions and feelings about horizontal violence; and Stevens (1993) used feminist narrative analysis in her study of access of low income lesbians to health care.

In sum, there were some nurse scholars located in the literature that addressed broad environmental dimensions in their work, and some that were exploring feminist theory and research methods. However, none were located that specifically synthesized both environmental sensitivity and feminist insights into nursing theory building and research activities. The need for this synthesis led me to incorporate an ecofeminist perspective into my work.

Ecofeminist Theoretical Perspectives and Assumptions

This study is informed by an ecological feminist (ecofeminist) perspective. Ecofeminism is categorized as an ecocentric theory (Merchant, 1990). It is a theory that women and the environment are interconnected as both share and have been subjected to the same patriarchal domination (Cheney, 1987). A failure to understand these connections will result in the continued exploitation of both women and environment at the theory, policy and practice levels. The vast majority of nurses are women who function under patriarchal domination (Watson, 1990) and share the same interconnections with the environment as do all women. In addition, the environment is a central concern of nursing

knowledge and practice. Therefore, nurses are doubly connected to the environment, both as women and as nurses.

Ecofeminists recognize the interconnectedness of women and the environment and recognize the necessity of uniting feminism and ecology. However, many of the environmental concepts are not acceptable from the feminist point of view, and feminist theory is not environmentally sensitive.

Ecofeminist Critique of Environmental Theories

Ecofeminists critique the dominant environmental theories; environmental biology, deep ecology, and the Gaia hypothesis as being patriarchal. The feminist critique of environmental biology is the same as for any empirical science. It is the scientific method itself that is in question and is considered sexist, racist, classist, and culturally coercive (Harding, 1986). Keller (1982), critiqued science as being androcentrically biased. Almost all scientists are male resulting in a bias in choice and definitions of problems to study and the design and interpretation of experiments. She noted that the male impulse to dominate and control finds expression in the goals, practice, and theory of science. Blier, (1984) critiqued science as being dualistic in nature, e. g., subjective/objective which is symbolic of the male/female dualism and the relationship between dominance and the dominated. Kheel (1985) believed that a result of dualistic thinking is the ruthless exploitation of women, animals, and

all of nature. Rose (1986) believed that the ideology of science (objective and value free) excluded women, was integral to their domination, and threatened the environment itself through annihilation.

Many of feminists' criticisms of environmental biology have been partially met by the deep ecology and Gaia theories. However, there are still feminist issues to be addressed within these theories. Ecofeminists have an ambivalent attitude toward deep ecology. They can identify with many of deep ecology's tenets, but are troubled by some aspects of it. A critique was made by Salleh (1984) who discussed each premise (listed in chapter 2) in terms of a broader feminist critique of patriarchal culture.

1. The use of the generic term man is the use of sexist language which reveals that deep ecologists have not acknowledged the basic social inequality between men and women.

2. Biological egalitarianism cannot be accomplished until men address their urge to dominate and use.

3. Human tribes and animals, as well as women's identity and creativity, have been annihilated by patriarchal culture which must be recognized by the deep ecologists in order to address the causes of diminishing biological diversity.

4. Ecofeminists embrace the anti-class principle; however, by bypassing the parallel between the exploitation

of nature as object and women as object, deep ecology's stance remains superficial.

5. Ecofeminists endorse the fight against pollution and resource depletion. However, pollution is expressed by deep ecologists in strictly external terms. Feminist consciousness is equally concerned to eradicate ideological pollution produced by a culture of domination.

6. The complexity-not-complication principle (integrated variety [as opposed to chaotic] means of living) involves a systems theoretical orientation that uses highly instrumental statements which collapse back into the shallow ecology paradigm.

7. The drive to ever larger power blocs and hierarchical political structures is a feature of patriarchal societies. Left to themselves, women choose to work in small, intimate, situations; thus, naturally women would adhere to local autonomy and decentralization.

Salleh (1992) did not question the intentions of deep ecology and supported its goal of breaking down the dualism of humanity versus nature. However, she concluded that deep ecologists have not grasped the epistemological challenge of ecofeminism, nor the complex interlocking issues involved in bringing about social change.

Ecofeminists are divided in their critique of the Gaia hypothesis. Some view the Gaia hypothesis as an update of the ancient goddess worshipping societies living peacefully

and in harmony with nature (Eisler, 1988). Others conclude that while the Gaia hypothesis serves to alter consciousness, naming it Gaia reinforces gender stereotypes by sex-typing a gender free entity. They suggest eliminating the Gaia imagery because it is anthropomorphic by rendering Earth in our own image (Murphy, 1988).

In sum, ecofeminists critique environmental biology (ecology) for its strict adherence to the empirical scientific approach. Radical environmentalism (deep ecology) and the Gaia hypothesis share themes of unity and wholeness to which ecofeminists can subscribe, however, both are oriented toward a patriarchal culture. Ecofeminists are looking for an environmental viewpoint within a feminist framework.

Ecofeminist Critique of Feminist Theories

Contemporary feminist theories can be categorized into four major groupings; liberal feminism, radical feminism, traditional Marxist feminism and socialist feminism. Ecofeminists critique the major feminist theories as not being environmentally sensitive.

Liberal feminism

Liberal feminism assumes the major values of liberalism--equality, liberty, and justice. Liberal feminists believe that the treatment of women in contemporary society violates these rights. They seek to obtain equal rights with men. They are critiqued by

ecofeminists for being concerned with nonhumans only in terms of human well being (King, 1989).

Radical feminism

Radical feminists see gender as an elaborate system of male domination. There are two major schools of thought and sources of tension within the radical feminist movement (King, 1989): the radical cultural feminists (which gave birth to the earth centered-spirituality movement) which identify women with nature; and the radical rational feminists (critical analysis and opposition to domination) who object to the women/nature connection and feel that it is a harmful stereotype. Radical feminism is most closely associated with ecofeminism, however by debating the question of whether women are closer to nature than men, they perpetuate dualistic thinking for which patriarchal concepts are criticized. In addition, radical feminist theory does not reveal the interconnections between the oppression of nature and women (Warren, 1987).

Traditional Marxist feminism

Marxist Feminists argue that women's oppression results from a class society and is due to the sexual division of labor. Women must be economically independent. Ecofeminists criticize Marxist feminists for being anthropocentric and pitting humans against nature, thereby denying the values of nature for itself (Warren, 1987).

Socialist feminism

Socialist feminists extend the Marxist definition of productive activity to procreative and other work done by women in the home. It is incompatible with ecofeminism because of its tenet of domination of nature (Warren, 1987).

In sum, ecofeminists critique environmental theories for being patriarchal and feminist theories for not being environmentally sensitive. They hold the view that the connections between the twin dominations of women and nature require a feminist theory and practice informed by an ecological perspective and an environmentalism informed by a feminist perspective (Warren, 1987).

Premises and Assumptions of Ecofeminism

Several major premises of ecofeminism have been identified by Warren (Warren, 1990; Warren & Cheney, 1991).

1. Ecofeminism is against domination of all kinds; e. g., ageism, sexism and nature.
2. Ecofeminism is contextual and relational and includes consideration of nonhuman relationships with each other, humans, and the community. It rejects the position that identifies human nature independent of historical context.
3. Ecofeminism is antireductionist and structurally pluralistic centralizing on diversity of humans and nonhumans, yet affirming that humans are a part of the ecological community.

4. Ecofeminism is biased in that it recognizes the twin domination of women and nature as social problems rooted in oppressive patriarchal frameworks.

5. Ecofeminism provides a central place for values that are typically underrepresented or ignored in our society such as care, love, friendship, and appropriate trust.

6. Ecofeminism views theory building, objectivity, and knowledge as historically and contextually situated and therefore a process that will change over time.

Based on these premises, a research methodology from a feminist perspective is mandated that assumes (a) the environment is a valid subject for nursing research, (b) the interconnections between patriarchal domination of women and nature, (c) that subjective data are valid, (d) that knowledge is relational, contextual, and progressive, and (e) that definitive boundaries between personal and public, or personal and political are artificial (Campbell & Bunting, 1991). This perspective advocates qualitative feminist research methodology combined with ecofeminist insights.

CHAPTER 3

Methodology

Combined qualitative data collection methods of individual field interviews using feminist approaches, and a focus group consisting of scholars who have addressed broad environmental dimensions related to nursing were used in this study. Data analysis was performed by using the constant comparative method which consisted of concurrent data collection and analysis.

The Participants

Twenty-one upstream scholars whose work has addressed broad environmental dimensions were identified from the nursing literature or from professional nursing presentations. The dimensions that were addressed included global, national, social-political-economic-cultural environmental perspectives. Two of these scholars were brought to my attention by other nurse scholars. These potential participants represented the majority of environmental upstream thinkers in nursing.

Recruitment

I recruited the potential participants by a letter and a response sheet (Appendix C) explaining the study and asking if she or he was willing to participate by (a) granting an individual interview, or (b) attending a focus

group to be conducted at the University of San Diego. Copies of articles that I have published regarding the environment (Kleffel, 1991a, 1991b) were enclosed in order to make explicit my environmental perspectives and biases (Hall and Stevens, 1991).

The potential participants' responses were very enthusiastic. For instance, one wrote, "What a marvelous idea!" on her response sheet. Most of the scholars agreed to attend either the focus group or meet for an individual interview. When the date was set for the focus group, six months in advance, nine were able to attend on that particular day. Four to 10 people are the recommended number of focus group members (Morgan, 1988). Those that were unable to attend the focus group were interviewed individually.

Of the 21 scholars contacted, eight were interviewed individually, and nine attended the focus group. Two did not respond, and two declined to participate, leaving 17 participants in the study.

Characteristics of the Participants

The participants turned out to be a fascinating, accomplished, and articulate group of people. All of them are, or have been teachers in university schools of nursing. One had been a dean. Most of them have published prodigiously in nursing journals and contributed to, or published books. One is the editor of a nursing journal,

and one is a top manager of a large nursing organization. All of the participants lived in the continental United States. All but one were women. All but one were nurses. The one who was not a nurse, taught in a university school of nursing and has published in the nursing literature.

The participants collectively exhibited several distinctive characteristics that set them apart from most nurse scholars. The first was their involvement with broad environmental issues, which is in marked contrast to most current nursing scholars' work. The second was their perceived marginalization within the profession. Third, almost all of the participants considered themselves feminists and were concerned with the oppression of women, the nursing profession, the environment, and other oppressed groups. A description of these distinctive characteristics follows.

Involvement in Broad Environmental Arenas

Personal and professional experiences led the participants to address broad environmental realms. Several of the participants' interests in larger environmental concerns stemmed from their involvement in Central and South American health and human right's issues. As one participant explained:

I became very involved in the issues of Central America, particularly in El Salvador and Nicaragua. I've been involved in the rights work and the medical

aid work. And the experiences there--they were just so shocking that they gave me a whole changed world view.

Personal concerns and activism within the broader environment became merged with professional nursing interests for other participants. For instance, one scholar had a personal concern with global environmental issues and joined the Greens, which is an environmental activist group. Later she began to think about how nursing could move beyond the micro environment. She began to teach nursing courses and publishing articles in nursing journals that dealt with macro level environmental interests.

Another participant originally became a nurse because of her personal interest in helping poor people. Once in nursing, she found that she couldn't solve any of her clients' problems, no matter how diligently she worked. She began talking to her clients, mostly women, who told her that what they needed was such things as jobs, housing, transportation, accessible health care, and child care. This led her into the political environment of social and health policy making and implementing.

Some of the participants became interested in the broader realms of environment through professional nursing activities. One taught public health nursing and became actively involved in the broader social and political health issues. Another was assigned to teach a class on environment. Others were asked to write or speak on the

topic of environment and during the preparation gained insights into the larger environment. The participants' involvement with broad environmental issues seemed to set them apart from other nurse scholars.

Marginalization Within the Nursing Profession

The participants were selected for this study because they had addressed some aspect of the broader environment in their work. I considered them creative and innovative nursing leaders. It did not occur to me that they were not part of the mainstream of the profession. However, despite their impressive achievements, they spoke of not feeling accepted within their own profession. Their nursing colleagues did not understand or support their work. "Rebel," "revolutionary," "maverick," and "weird" were some of the words that their colleagues have used to describe them. These out-of-the-mainstream characteristics of the participants also appeared in their environmental views and recommendations for nursing action which will be discussed later.

Ecofeminist Perspective

The participants came from an ecofeminist viewpoint, although they did not always label it so. They spoke to oppression and empowerment issues of the nursing profession and the need for nurses to directly address environmental issues. Many of their recommended actions were radical in nature. One participant contributed the following to a

discussion on nurses being afraid to connect with one other because of their oppression.

Yes, I agree totally. I think that there is no way to connect around some of the controversial, marginalized issues. There's just lists and lists of taboo topics that are not mainstream (in nursing). One example is that hospitals are the largest private sector producer of nuclear waste. And we live and work in them. And yet, we as nurses refuse to really look at that...and to challenge the occupational safety issues that we're exposed to.

These three characteristics, addressing the expanded environment, marginalization within the profession, and ecofeminist perspectives appear to be related. Nurses who have an ecofeminist world view tend to address broad environmental issues that are outside nursing mainstream thinking. We will return to issues of oppression and empowerment in Chapter 7.

Data collection

Data were collected from the participants from four initial individual field interviews, a focus group consisting of nine participants (Krueger, 1988; Morgan, 1988), followed by four additional individual field interviews. Different participants were used for the interviews and the focus group so that the data could be constantly compared and developed into themes and then

categories. Additional participant data were collected from followup telephone conversations and written comments.

Other data consisted of information in the literature and the researcher's own professional and personal experiences as sources of theoretical sensitivity (Strauss & Corbin, 1990).

Individual field interviews

Eight individual field interviews, using an interview guide (Appendix C), were conducted that were congruent with feminist values of subjectivity, contextuality, reciprocity and empowerment (Anderson, 1991). The interviews were loosely structured, and the interview questions were used only as a guide. The participants changed the order of the questions, decided how extensively to answer the questions, and brought up issues that were not part of the questions. The interview process, itself, resembled a conversation between the participants and myself where information and ideas flowed freely. Both the participants and I brought our own understandings and biases to the interview. Sometimes the interview process itself facilitated a change of ideas and opinions which then become part of the data, and thus part of the process of the production of knowledge (Reinharz, 1992).

Four interviews were conducted prior to the focus group, and four following the focus group in order to constantly compare ideas and opinions from individuals, to

the group, and then back again to a different set of individuals. All interviews were conducted, taped, and transcribed by myself. The interviews, themselves, varied greatly in time, depth, and complexity. The shortest was about 40 minutes and consisted of brief responses to the questions. The longest was two hours and forty-five minutes. This 50 page interview started as a face-to-face interview and continued with two additional telephone interviews as epistemological and ontological environmental issues were discussed in some depth.

To assure accuracy (Hall & Stevens, 1991), two transcripts of the individual interview were sent to each participant who granted an individual interview accompanied by a self addressed and stamped envelope and a letter which stated "please read, augment, or change the transcript in any way, so that I will have accurate information about your environmental ideas." The second copy was for the participant to keep if she wished. All but two of the transcripts were returned with corrections, comments, and/or notations. Focus group members were not sent a transcript. However, I occasionally telephoned members in order to clarify views.

Some of the initial participants were interviewed a second time after the focus group was held in order to get their responses to new themes that were generated during the focus group meeting. The focus group accomplished

theoretical sampling for increased density. Data from the focus group was used to build on the themes derived from analysis of the initial four individual interviews.

Focus group

A focus group is defined as a planned discussion in a nonthreatening environment designed to elicit perceptions and ideas on a defined topic (Krueger, 1988). The strength of using a focus group in addition to individual interviews is the opportunity to collect data from group interaction. A group discussion brings forth material that would not come out during individual interviews. The participants' interaction among themselves replaces their interaction with the interviewer, resulting in greater emphasis on participants' points of view. A focus group provides an opportunity to explore and clarify issues brought up during individual interviews (Morgan, 1988).

A two hour focus group was held at the University of San Diego in December of 1992. All nine participants who initially agreed to come were able to attend. That seemed rather remarkable because of their very busy schedules, and the lengthy travel time for some of them. They volunteered their time, but were reimbursed for their motel, food, and travel expenses.

The focus group turned out to be an exciting way to gather rich data. The participants acted like a group of people who had found an intellectual and emotional home with

each other. Although most of them had not previously met, they were familiar with each others' work. For instance, one participant said:

I might say that my experience of your chapter, (first name of participant), was of a hand extended from nursing to join my different literature.... I felt that I could grasp your hand and know that it was legitimate to speak.

The participants were vivacious and sparked ideas off each other. They generated vitality and energy that was felt by everyone in the room. They picked up themes from each other and added their own perspectives to them. They interacted freely. They were obviously sorry when the focus group meeting ended and wanted to have another one the following year. One participant said as she was leaving:

It was just wonderful to be re-energized and revitalized with such a remarkable group. So thank you all for a wonderful experience.

Following the focus group meeting, I invited the participants to attend the Qualitative Research Group held at the School of Nursing in order for them to meet other faculty and students. All of them attended except two who had to catch planes. There the excitement continued as the participants, faculty, and students discussed research interests. Several of the participants remained after the

Qualitative Research meeting, continuing to interact with other faculty and students until late in the day.

Conducting a focus group proved to be a very fruitful and enriching method of collecting data. The participants not only discussed their own ideas of an ideal environmental nursing domain, they built on each other's thoughts, and carried ideas and themes from one to another. The resulting data were considerably more comprehensive than any one person's contributions. Future-search, the building of a knowledge base in order to get to an ideal environmental domain, was performed as a group during this meeting. The focus group proved to be stimulating and meaningful to the participants as well as to myself.

Data analysis

Data analysis for the interviews and focus group was performed by using the constant comparative method (Strauss & Corbin, 1990) and consisted of identifying key ideas, building them into categories, then themes and patterns, and finally the development of a beginning substantive theory. This method is congruent with data analysis recommended for focus groups (Kingry, Tiedje & Friedman, 1990).

Data obtained from the four beginning individual interviews were formulated into categories and compared with each other until themes and patterns began to emerge. I had intended to ask the focus group members to respond to these themes and patterns to increase density, but time

precluded me from doing so. However, I did incorporate these themes and patterns into the questions for response from the last four individual participants.

Focus group participants did not respond to all questions because of time limitations. They concentrated mostly on what led them to address broad environmental concerns, their idealized conception of the environmental domain of nursing knowledge, and on recommended nursing actions.

During data analysis, I looked for broad areas of agreement as well as differences among the participant's viewpoints (Hall & Stevens, 1991). Some of the differing viewpoints are reported in Chapter 8. The data were further analyzed and compared and built into a beginning theory of the environment.

The mechanical aspects of the data analysis were assisted by the use of The Ethnograph (Seidel, Kjoiseth, & Seymour, 1988), a set of computer programs designed for analysis of data generated during qualitative research. I found it an efficient way to manage an enormous amount of fieldwork data.

Rigor

The reliability, external and internal validity criteria that are used in empirical research are not appropriate in qualitative research (Lincoln & Guba, 1985). Because this study was from an ecofeminist perspective, the

feminist research criteria for rigor that were developed by Hall and Stevens (1991) were used. How I met some of the criteria are briefly described.

Reflexivity was used by examining my values, assumptions, and motivations and making them explicit to the participants and in the writing of this research.

Credibility was assured by asking the participants to review and change or supplement their interviews. Complexity was achieved by searching for exceptions to consensus and reporting alternative ideas in Chapter 8. Mutuality was performed by providing a summary of the findings of the research to the participants. The interviews and focus group themselves were mutually beneficial to the participants. Relationality was provided by nonhierarchical research approaches. My relationships with my participants were collegial, open, and nonhierarchical.

Another aspect of relationality is collaborating with other scholars. This was done by presenting my study to the Qualitative Research group at the University of San Diego for dialogue and reflection with faculty and graduate students. In addition, I worked closely with my dissertation committee members who reviewed some of the interviews and viewed the video tape of the focus group. Additional dialogue, reflexivity, and coding consultation occurred during these interactions.

Committee on the Protection of Human Subjects

Approval for the research was obtained by the Committee on the Protection of Human Subjects at the University of San Diego in September 1992 (Appendix D). Data collection began in October 1992.

CHAPTER 4

The Environment as a Unitary Whole

How did these nontraditional, upstream thinkers conceptualize the ideal environmental domain of nursing knowledge? A composite description of the participants' responses revealed a holistic, comprehensive and cosmological environmental perspective. They considered the environment to be a vibrant, open, living, unitary whole, with patterns and complexities that are connected and in constant interaction with each other and with all other living and non living things.

This environmental ontology of one alive, complex, interacting, universal organism with everything being connected is an ecocentric approach to the natural world. The ecocentric approach is holistic with the whole being considered greater than the sum of the parts, and with intrinsic value being assigned to all elements within the whole. This approach has themes of open systems and interconnectedness. Its assumptions are discussed in the literature review. The participants share common assumptions with other systems of thought within the ecocentric approach such as some Eastern and Native American ideas; as well as Western ideas of Thoreau, Rachel Carson, Fritjof Capra, deep ecology, holographic theory, and ecofeminism.

Of the many ecocentric approaches, ecofeminism is a relevant model to compare with the participants' environmental ideas because all of the participants have addressed some broad aspect of the environment in their work, and most consider themselves feminists. This emphasis on environment and feminism suggests ecofeminism, which is a synthesis of environmental and feminist theories. Because the participants' responses seemed to reflect an ecofeminist perspective, and because ecofeminism is my theoretical framework, I compared the premises and assumptions of ecofeminism (Warren, 1990; Warren and Cheney, 1991) with the participants' ideas.

1. Ecofeminism is against domination of all kinds, e. g., ageism, sexism and nature.

Oppression, domination, and empowerment were major themes expressed by the participants and will be discussed in greater detail later in Chapter 7. The participants were against all forms of domination and specifically mentioned sexism, racism, elitism, ageism, specism (domination of other living creatures) human rights issues, and economic inequality as forms of domination that can cause illnesses.

2. Ecofeminism is contextual and relational and includes consideration of nonhuman relationships.

As discussed above, the participants viewed the world as a complex, interconnected and interactional whole. Relationships with nonhumans were specifically addressed by

some of the participants in terms of caring. As one expressed it:

I think that if we don't pay attention to caring for and having respect for the earth, and creatures that are on the earth that are not human, then we won't know how to care for one another as people.

3. Ecofeminism is pluralistic focusing on the diversity of humans and nonhumans, yet affirming that humans are a part of the ecological community.

The participants were pluralistic in their views and have dealt with a great diversity of people in their work. They mentioned working with people in Guatemala, El Salvador, Nicaragua, and Chile in the areas of human rights, torture, children with high risk of disease, and political and economic inequalities. Some have worked with marginalized people in this country in the areas of homelessness, substance abuse, and psychiatric nursing of gays and lesbians. Some have worked in the community with clients who present multiple health and social problems.

The participants were well aware that they were a part of the environmental context within which they worked. For instance, one stated that she "frames her problems within the framework of a human ecological system." A community health nurse noted the need to "understand the nursing client within the context of the its community." Another stated that the notion in the background of all her work is,

"What does it mean to be a human being and work in partnership with all other manifest realities." Several of the participants brought up the necessity of understanding the importance of human affairs within the "global community."

4. Ecofeminism is biased in that it recognizes the twin domination of women and nature as social problems rooted in oppressive patriarchal frameworks.

The domination of women and nature were recognized as major social problems by the participants. Most of the emphasis was on domination of women and of the nursing profession which is composed mostly of women, but some strong concern for nonhuman nature was expressed. For instance, one participant was very troubled about the animal experimentation that was going on in her institution.

Basic exploitation of animals goes on every day right in the building where I work. It really causes me to question how much longer I can stay here supporting a system that does this. And even educating students to co-opt and participate by not doing anything different to change it.

Oppressive patriarchal domination that included women, nature, and all of the other forms of domination mentioned in the first assumption were considered by the participants to be social problems that can cause illnesses.

5. Ecofeminism provides a central place for values that are typically underrepresented or ignored in our society such as care, love, friendship, and appropriate trust.

Historically, caring has been a central value in the nursing profession, and there are many caring models and theories in the nursing literature. Enhancing caring values in relationship to the nursing client (both individual and collective), students, each other, ourselves, and the environment were a concern of the participants. While discussing caring relationships, one participant said:

I think that we truly need to truly address several fold relationships, my relationship with myself, with intimate others, a broader "other" of humankind, and all of the animals, plants, minerals, and the cosmos.

6. Ecofeminism views theory building, objectivity, and knowledge as historically and contextually situated and therefore a process that will change over time.

The participants viewed nursing theory as being important historically and moving the discipline to a more professional level. However, they expressed the need for different and newer models for the profession to continue to progress in today's world. For instance:

I think that all of the discourse that is going on, and all of the writings on nursing theory have been incredibly important and have moved us forward. But I

think that we are really moving beyond nursing theory, I really do, and beyond the domains.... But I see the exciting thing that is happening is having the convergence of the key perspectives which is a unitary perspective.... All of those things are beginning to merge to create a better informed paradigm.

In sum, the participants conceived of the environment from a unitary and holistic perspective. Their emphasis was on environmental characteristics that are alive and dynamic, with open systems, interconnected, interacting, and within a complex context. Their perspectives are compatible with the ecocentric approach to the environment. The participants' ideas were compared with the assumptions of one ecocentric approach, ecofeminism, and found congruent.

Conceiving of the environment as alive, whole, interconnected and interacting is currently not in the mainstream of Western scientific thought. However, these ideas have existed throughout time. I will discuss both ancient and modern philosophies that incorporate these specific perspectives into their world view.

CHAPTER 5

Characteristics of the Unitary Whole

The idea that the earth is alive, whole, interconnected and interacting has existed since ancient Greek and Roman times, about 2000 years ago. Early Eastern and Native American philosophies also reflect this dynamic and unitary view of the world. Modern ecocentric environmental thought such as the Gaia hypothesis, ecofeminism, holographic theory and deep ecology (all described in chapter 2) appear to be updates of these early ideas.

The concepts of alive, whole, interconnected and interacting are, in actuality, entwined and overlapping. They are discussed separately in this section for purposes of analyses.

Alive

"Living," "conscious" and "dynamic" were some of the words used by the participants to characterize the planet as alive. One participant, who believed that the issue of an animate world was an ontological issue, described the living nature of the world as "being."

...especially if you think of the environment as part of nature, and nature in some sense being part of God...the idea of being. Then once you begin to push the concept of environment toward the notion of being,

then the distinction between person and environment is very hard to make.

The view that the earth is a living organism was held by many ancient systems of thought. The world as an alive entity was personified terms of the Earth goddess by the ancient Greeks and Romans. Mother Earth was the oldest and greatest goddess. She bore all that there is; the sky, stars, all worlds, and all creatures. This view of the Earth goddess later gave way to a less personalized perspective that the earth is one vast, alive, sentient organism (Hughes, 1982).

Similar views of the earth as a living organism are held by traditional Native American cultures. Although there are many Native American cultures, a core belief is that the earth is a living, conscious being that must be treated with respect and care (Booth & Jacobs, 1990). The American Indian regarded all entities (such as the sky, clouds, wind, rocks, soil, streams, trees, insects, birds and animals) as having consciousness and reason as complete as humans (Callicott, 1982).

Many ancient Eastern philosophies also incorporated the living characteristics of the environment into their systems of thought. For example in Taoism, a Chinese philosophy, Ch'i is the living vital force of the cosmos. The least intelligent being, such as a rock, and the highest manifestation of spirituality, such as heaven consist of the

living ch'i. Nature is the result of fusion and merging of vital forces that form the great harmony. Nothing is outside of nature (Wei-Ming, 1989).

These dynamic ideas of the world that were held by ancient thinkers are reflected in contemporary environmental thought. The Gaia hypothesis (Lovelock, 1979; 1988) is considered to be an update of the ancient Greco-Roman organic notion. Gaia is a system made up of all living things and their environment. There is no clear distinction between living and non living matter, only intensities.

Other environmental approaches also include the concept of a living planet within their frameworks. Some ecofeminists, in their efforts to construct a more just and peaceful society, are reclaiming early Greek, Roman, Native American, and Eastern ideas of a living world (Eisler, 1990). Deep ecologists believe that there is no firm division in the field of existence. There are no boundaries between human and non human realms, because all are alive (Devall & Sessions, 1985). Bohm (1980), one of the early developers of holographic theory, believed that life and intelligence are present in the fabric of the entire universe; in energy, space, and time as well as in all matter.

Conceiving of everything as being alive may be difficult for those of us with a modern Western mind. Jerome Rothstein, a physicist, used an analogy of a giant

redwood tree in explaining how rocks are alive. The great redwood tree is an ancient spire of dead wood, made of lignin and cellulose by the predecessors of the living cells of the tree's bark. Likewise, in the earth, many of the atoms of the rocks clear down into the magma layer of the earth were once part of the ancestral life from which we all have come (cited in Lovelock, 1988).

Whole

The participants believed that there is one unitary environment with numerous "patterns," "strands," "threads," or "complexities." They believed that the totality is greater than the patterns of which it is composed.

Wholeness was another theme incorporated in several ancient philosophies. The world was considered whole by the ancient Greeks and Romans, first with the concept of the Mother Earth goddess, then later as an enormous, single entity. Traditional Native Americans believed the world to be one entity called "Grandmother" or "Mother Earth" (Booth & Jacobs, 1990, p.32). They believed in one world where all human and natural realms are unified and akin (Callicott, 1982). In Taoism, the earth was considered an organic whole which was comprised of all patterns of nature. Humans are one part of the whole and must act within natural laws (Peerenboom, 1992).

The idea of wholeness is a theme in many current environmental philosophies. For instance, in the Gaia

hypothesis, all of earth's matter forms a complex system of life which is one living organism. This unitary organism has faculties and powers far beyond those of its constituent parts (Lovelock, 1979). In holographic theory, the universe is conceived as a giant hologram. Every portion of the universe is reflected within each part. Every part enfolds the whole (Bohm, 1980). In other words, every leaf or every cell in our world reflect the entire cosmos. Deep ecologists believe that all organisms and entities in the ecosphere are parts of the interrelated whole and are equal in intrinsic value (Devall & Sessions, 1985).

Interconnected and Interacting

The participants stressed the interconnectedness and interaction of all things. The environment was described as a "unitary consciousness" and as a "mode of being" which is in relationship with everything in the universe. There is no separation between humans and the environment. "We are not anything apart from, or just responding to the environment. We are the environment!" Environmental interaction was considered to be of great importance by the participants. Some believed that nursing's focus on interaction is unique to the profession.

According to the ancient Greeks, Mother Earth interacts with and nourishes all creatures. If we serve her well, she gives us good things in return. If we treat her poorly, the balance tips resulting in famine, disease, disaster, and

death (Hughes, 1982). As the Mother Earth image gave way to a less personal, but whole and living organism, the Greeks emphasized the interactions and balance of the elements and creatures within the unity of the world. Humans are one functioning part of the totality and act in harmony within the organism. Environmental problems reflect disharmony and illness of the organism (Hughes, 1982).

Traditional Native Americans believed in the kinship of all things in a type of universal relatedness which is part of the Great Spirit. Plants, animals, rocks, thunder clouds, and stars, for example, are all part of the traditional family-like relationships (Neihardt, 1931). Native Americans hunted and gathered in a way to preserve environmental balance. Something had to be offered to return for anything that was taken. Species did not become endangered or exterminated because the Native Americans did not want to eliminate a kindred being. It was believed that disease and calamity result if these reciprocal relationships and interactions do not take place (Booth & Jacobs, 1990).

The ancient Chinese philosophy considered Tao as nature. Tao is nameless, intangible, empty, simple, all-pervasive, eternal, life-sustaining, and nourishing. It is the process of change and interaction which is governed by the interactions of Ying and Yang. There is no chasm between humans and nature because everything is connected to

everything else. Everything is ontologically equal; therefore, humans receive no special status or attention (Ip, 1983). To cultivate the environment is to cultivate oneself. To use the environment in an adverse manner is to impoverish oneself (Ames, 1986).

Modern environmental ideas also include themes of interconnectedness and interrelatedness. Arne Naess (1973), the Norwegian philosopher who developed the principles of deep ecology, viewed the environment as a relational total field. He rejected the man-in-the-environment image in favor of one where all organisms are "knots in the biospherical net" (p. 95). As mentioned above, he considered all organisms and entities as parts of the interrelated whole. Therefore, if we harm the rest of nature, then we harm ourselves. Everything is interrelated, and there are no boundaries (Duvall & Sessions, 1985).

In the Gaia hypothesis, Lovelock (1988) described all ecosystems as being connected. To describe the interconnections, he used the analogy of an animal's liver which has some capacity to regulate its internal environment. Although cells of the liver can be grown in isolation, neither the animal without its liver, nor the liver itself, can live independently. Both depend upon the interconnections between each other. Gaia, as a totality involving the Earth's biosphere, atmosphere, oceans, and soil, constitutes a feedback system which seeks an optimal

environment for life on this planet. An unbalanced environment, caused either by natural events or humans, can have disastrous consequences for life (Lovelock, 1979).

In holographic theory, interactions begin at the atomic level. Bohm (1980) found that when electrons and ions were in plasma, they stopped behaving like individuals and began behaving as if they were a part of a larger interconnected whole. He believed that everything in the universe is part of a continuum. Although things appear separate, everything is a seamless extension of everything else which ultimately blend into each other. Ignoring this dynamic interconnectedness of all things is responsible for many of our problems. For instance, we believe that we can extract valuable parts of the earth without affecting the whole, or we believe that it is possible to treat parts of body and not be concerned with the whole (Talbot, 1991).

In sum, some common ideas about the environment being alive, whole, interconnected and interacting can be identified from the above discussion. When we conceptualize an environment that is alive, we mean that everything within the planet is living. Soil, rocks, atmosphere, oceans, space and time, plants, all creatures, and so forth make up the living structure of our planet.

The living quality of our environment is unified and whole. Therefore, when we speak of the environment that is whole, we are speaking of one huge entity that is comprised

of many patterns or elements that are united into a whole that is greater than the sum of its elements.

The living, whole environment is interconnected and interacting. When we speak of interconnecting and interacting, we mean that all of the elements and patterns that exist within the whole are interwoven, interconnected, and interrelated to form an equilibrium. All have equal status. If one pattern within the whole is harmed, everything else within the whole is harmed. If the balance of the planet is disturbed, illness and disaster can result.

Our alive, whole, interconnected, and interacting planet was considered by many of the participants as part of the universe which is also alive, whole, and interacting. Our universe, in turn, is situated on the edge of cosmos. From the perspective of some of the participants, any activity at any level reverberates throughout the cosmos.

Although all of the participants had a holistic perspective of the environment, they did not consider it an undifferentiated mass. Things can be a part of the unitary whole and still possess their own characteristics. A number of the participants felt that there had to be recognized structures or patterns in order to address the environment in a practical manner.

I have some appreciation for a kind of seamlessness between persons and environment along the lines of Martha Rogers, for example, that there is a kind of

unitaryness there.... But the pragmatic part of me says that we can't really deal with it as one. That we have to impose a certain structure to these kinds of ideas...just in order to act.

The participants discussed various aspects of environment in many terms. Patterns, themes, strands, threads, segments, parts, complexities, dimensions and levels were some of the words that they used. I have chosen the word "pattern" which connotes the fluidity and open or undefined boundaries of which the participants spoke.

Patterns are alive and dynamic, and swirling around in constant interaction. They are a definable part of the whole, like a wave in the ocean, or a strand of yarn in a sweater. The participants believed that there are patterns of which we are not aware, but some of those of which we are aware were described as dimensions and levels. These dimensions and levels are some of the patterns which reflect the whole and give unity within diversity.

CHAPTER 6

The Patterns Within the Whole

Pattern recognition bring parts and relationships into a coherent whole (Sarter, 1988). Many of the participants believed that the patterns within the environment had no boundaries. Other participants believed that they had boundaries, but were "fuzzy" rather than defined. They characterized them as multiple, permeable, changing, flexible, responsive, overlapping, dynamic, incorporating, expanding, self mediating, and perhaps expelling. None of the participants considered the boundaries of the patterns to be static or closed.

The participants believed that there are many more patterns of environment than we, as humans, can perceive. Those that we are aware of were discussed in terms of dimensions and levels. The dimensions and levels are in continuous interaction with each other, and their boundaries are variable and overlapping. Interactions between patterns were considered of equal importance to the patterns themselves. Many of the participants believed that this recognition of the significance of interactions is distinctive to the profession.

Environmental Dimensions

Of the innumerable environmental dimensions that exist, the physical, social, cultural, economic, and political

dimensions were most frequently mentioned by the participants. Other interesting dimensions that were noted were ontologic, human social relationships, everyday life, time and space, and history.

Physical environment

Pollution (water, air, ground, and noise), radiation, chemicals, and toxins of all kinds were often mentioned as environmental factors that adversely effect all living things. As one participant who works in an environmental research center put it, "I think that there is a complex chemical world that we're not aware of that affects all of our biological destinies." Concrete material things such as physical artifacts, commodities, housing, occupational settings, schools, institutions, recreational areas, etc., were also considered as part of the physical environment. Aesthetic aspects of the physical environment included color, light, form, structure, shape, and space which were discussed in terms of the immediate environment of people and populations.

Some participants believed that the physical environment has rules that nurses should understand and address. As one stated, "I believe that the environment is objective. There's some laws of physics, chemistry, and biology that affect all of us. There are some universal laws." Affecting and interacting with the physical

environment are the social, cultural, political, economic, and all other environmental patterns.

Social environment

The social environment was considered to be the structure of society's institutions and organizations. These structures provide the framework for power, authority, and decision making that affects large segments of the population. Equal opportunity for full participation in society's activities is a democratic principle of this country. Disparate social policies that exclude certain people can contribute to poor health. A participant described how nurses can act in the social environment:

So there's the social dimension of environment. And that goes all of the way from the interpersonal relationships...to what nurses need to do to facilitate peoples building their capabilities to enhance their democracy...because democracy is the only real form of government in which people can take action.

The social environment is a part of, and interacts with all other patterns of environment.

Cultural environment

The cultural environment was described in terms of a broad spectrum of human perspectives and interactions. The emphasis was on people rather than the physical aspects of environment. One participant, who works in the cultural arena of nursing, stated that nursing in the cultural realm

entails "a knowledge of multiple world views, multiple ways of living, and the rules by which many people live. You don't stereotype, but you generalize."

Another participant, who also works in the cultural realm, stressed the human interaction part of the cultural environment.

We've looked at human history from the time that we began to be human as interactions, as transactions between us as populations and environment. And an environment that changes us as much as we change the environment.

Excluding, stereotyping, and not understanding certain cultures can adversely affect the health of certain groups of people.

Economic environment

The economic dimension was often mentioned by the participants as an important aspect of the environment. It was described in terms of "inequalities of resources and jobs." One participant commented that historically nurses have been separated from the economic and financial aspects of health care, thereby silently fostering the status quo with all of its injustices. The participants discussed the importance of nurses making economic policy decisions in the health care arena because "nurses deal with the human disasters caused by uniformed and unjust economic and social policies." The economic dimension of the environment

impacts, and is affected by, all other patterns of the environment.

Political environment

The political aspect of the environment was of primary concern by almost all participants. A great deal of time was spent on discussing the political environment during the focus group. Politics was defined by one nursing scholar:

One of the definitions that I use and really like a lot is that politics is the ability to enact values in the world. If we say that we have certain values as nurses that we want to enact, then it will lead us to a very, very, political arena.

Another scholar who has spent most of her career in the political and social arenas of health emphasized that nurses need to go beyond their concerns with the physical environment and get involved in public policy making, policy adopting, and implementing (or not implementing) policy. She noted:

There is no physical environment anymore, anywhere on the planet that is not affected by public policy--even third world countries. People in nursing just don't seem to acknowledge that very much.

The physical, social, cultural, economic, and political dimensions of the environment were the ones most frequently referred to by the participants. Their close connections

were often illustrated by the participants who would mention them all in one sentence.

Other intriguing environmental patterns were mentioned less frequently. They were: ontological, human social relations, everyday life, time and space, and historical environments.

Ontological environment

One participant envisioned an ontological environment. When asked to describe the ontological environment, she replied:

You can walk into a room or be at a gathering of people, and there's an environment that can be communicated. You can tell whether it's hostile or welcoming, or warm, or inviting. So you can have the best environments in the world as a commodity, like a mansion, a home. But it can be a house, but not a home. It's that kind of environment that I think that we are talking about, the subtleties of the environment.

The ontological subtleties of the environment mentioned by the participant include the energy, consciousness, and the way of being within a situation. They can influence health positively or negatively. Human social relations can be a part of the ontological environment.

Social relations

People are surrounded in their environment by a variety

of persons and non humans with whom they have social relations. Friends; colleagues; intimates; administrators; subordinates; acquaintances; strangers; younger persons; older persons; members of different gender, ethnic, racial, and religious groups are all the humans to which we relate every day. These relationships may contribute to our well being or may contribute to anxiety, stress and illness. Relationships with self, intimate others, organizations, community, humankind, animals, plants, minerals and the cosmos were mentioned by the participants as important aspects of the social relations environment. Isolation and lack of human and nonhuman social relations can contribute to ill health.

Everyday life

The environmental pattern of everyday life of persons is their ordinary routine habits and activities such as getting up in the morning, eating, going to school, working, shopping, cleaning house, and watching television. Everyday life is the reality to which people react and respond and is related to all other dimensions of environment. Everyday life can be ordinary and cause no concern. However, when everyday life is characterized by deprivation and oppression, ill health can result.

Time and space

Time and space dimensions were mentioned as important aspects of the environment. Sometimes they were referred to

as one and the same dimension. Other times they were mentioned separately. Space and time were discussed in linear terms by some participants. Taking care of our space was explained by one participant:

...and we need to learn to treat space as really valuable. And the spaces that we create for our places where we work, where people live, and so forth; need to be thought of as special, unique areas that we take care of--like we take care of a very valuable possession, or a person that we love and care for. And it can be designed and worked with without a lot of material or monetary things to become something that nurtures, that give sustenance, that brings peace, and all of those things.

Time and space were described in nonlinear terms by other participants. For instance, the professor who used a holographic framework believed that time and space "may be very, very different than what we have been able to comprehend." In order to understand what she might mean, I reviewed Bohm (1980), a pioneer in holographic theory; and Dossey (1982), a physician who adhered to the holographic model.

Bohm believed that space and time are undivided and whole. They cease to exist as separate dimensions, but dissolve into the implicate (deeper enfolded reality) order. Using this model, Dossey believed that the emergence of

health and disease is coupled with humans' perception of time and space. We make ourselves sick by conforming to the linear, one-way flow view of time. Similarly, we can eradicate certain diseases by adopting a nonlinear view of time and space as one dimension where past, present, and future merge.

Time and space patterns are closely allied to the historical dimension of environment. The historical aspect of the environment was a reoccurring topic during the focus group.

Historical environment

History as a dimension of the environment was introduced into the focus group by one of the participants:

...what's most important for me about that (environmental) domain is that it needs to be historical. We need to be looking at historical aspects of environment. I think that in this country we have been very ahistorical.... I think that it needs to take into account those things that Marx gave us; to look at the environment critically and ask why and who is benefitting from the way things are.

This theme of the historical realm of environment was picked up and discussed by other focus group members. Important aspects were discussed in terms of reclamation and revaluing. Themes of reclamation included; reclaiming our body, by working with survivors of trauma. Reclaiming our

memory, by recalling the history of ethnic racial groups and the history of gay and lesbian people. Reclaiming our mind through education and literacy. Reclaiming our place, turf, and space "inch by inch." Several participants mentioned that we need to look back to our early nursing leaders, such as Florence Nightingale who actively addressed environmental concerns in many of the dimensions mentioned above. Nursing needs to reclaim its role in broad environmental arenas.

The theme of revaluing was mentioned as an aspect of the historical realm and illustrated in terms of epidemiology. Nursing needs to better understand and revalue knowledge about the history of infectious diseases.

You know the epidemics come in a sort of restless tide. We haven't been paying enough attention to the broader history. We look at something and say, "Gee, we haven't had this for five years." Let's look back for fifty. Let's look back a hundred. Let's get a grasp of this social history in a critical way.

Reclaiming and revaluing nursing's history was considered an important environmental dimension by the participants because the profession needs to know where it came from in order to determine future directions.

Several of the dimensions discussed above are similar in wording to the subconcepts proposed by Chopoorian (1986). The terms are commonly used and may, or may not, have affected the participants' environmental ideas. Several of

the participants from both the focus group and the individual interviews mentioned that they had read and been inspired and influenced by Chopoorian's article.

In addition to identifying patterns of environmental dimensions, the participants discussed levels of environment. As with environmental dimensions, the participants believed that humans are not aware of all of the levels of environment. The boundaries between the various levels and all other patterns of the environment were considered fluid. Environmental levels were considered to be in constant interaction with all other patterns of the environment, and with each other.

Levels of the Environment

Levels of environment discussed by the participants were micro, meso, macro, global, universal, and cosmological. Several participants followed Bronfenbrenner's (1977) model (which is described in Chapter 2) when referring to the levels of environment. However, they did not use his description of an exosystem.

The microsystem level was used by the participants in terms of the surroundings of the immediate nurse-client relationship. The mesosystem level was used when talking about community services and organizations. The participants did not mention an exosystem, which is described by Bronfenbrenner as social structures that impinge upon setting of the individual such as the media. The

macrosystem level was considered by the participants as the larger social, cultural, economic, and political aspects of the environment.

Several participants went beyond Bronfenbrenner's environmental systems to include global, universal, and cosmological levels. The global level of environment was of great concern to some participants.

Because, given the nature of global communication, it is not at all hard to imagine the global community. I think that we've seen examples of that at Tianiamen Square incident in China, and the focus of attention on the former Yugoslavia. Instant communication and electronic telecommunication on the planet have now really made us a global village.

Nursing action in the global arena was considered essential in order to beneficially affect the health of humans.

I push my students...to follow Afaf's (Meleis) idea about really focusing on the substance. If you focus on the substance, which is human suffering in the world, and the health of humans; then you can't possibly confine your theoretical work to the individual. You have to get to the population and global levels.

Universal and cosmological levels were mentioned by some participants. These levels are congruent with the

holistic interactional thinking of most of the participants, but remained rather ambiguous. One participant explained her ideas:

And take this even beyond perhaps the planet. That's another thing that I don't think that we've addressed. That when we go beyond just this planet, that we're just a small little ball in the universe. We are on the edge of the cosmos. And so when we move beyond the planet, I think that we are in a whole new cosmology...that goes from that very concrete environment of the walls, steel, or metal; there's still the middle, to the color, to the light, shape and form; and the energy that's transmitted from the shape, and the form, and the color, which gets us all of the way out to the edge of the cosmos.

Each level of the environment is embedded within all other levels, and all are interdependent. Although the participants envisioned many levels of environmental patterns, several commented that nursing has focused almost entirely on the micro environment to the exclusion of the other levels, thereby limiting the profession's effectiveness.

The idea of all levels, dimensions, and other patterns of the environment being connected and constantly interacting was a repetitive theme of the participants.

.

They believed that understanding these interactions was crucial to understanding and enhancing health.

Environmental interactions

Interaction, both human-environment and the interactions between the various patterns of the environment, were considered to be of equal importance as the actual dimensions and levels of the environment themselves. The participants believed that this focus on environmental interactions with other domains was fundamental and distinguishes nursing from other disciplines.

...and so what's unique about nursing is again--the person, environment and health are of equal status in terms of our process. One is not more important than the other, but rather they are of equal interest. It's in their interaction, all three...that you begin to approach what nursing is about and sets it apart from other areas of human knowledge.

Humans obviously interact with the environment through their five senses. But are our five senses the only way with which we connect with the environment? Winstead-Fry (1986) raised the question of whether there are other processes with which humans interact with the environment such as intuition, meditation, and altered states of consciousness. The participants believed that humans

interact with the environment with more than their five senses. One participant said:

The five senses, or however many that there are, would be part of it. But I think that there are probably ways in which humans and environments are one that are beyond our understanding now.

Intuition, telecommunication, symbolic involvement, and aesthetics, were some of the other ways mentioned by the participants that humans may interact with the environment. Mode-of-being was emphasized by another participant:

I think that we interact with the environment through our ways of being, and through our very notion of being in the world. And that comes hand-in-hand with our world view and orientation.

The participants noted that it was not enough to understand the dynamics of the interactions between the individual and the environment, but it was important to understand the interactions between the collective persons and their environment. The collective-environment interactions require different nursing actions than the person-environment interactions. They are described in Chapter 7.

The participants believed that environmental interactions are the focus of nursing knowledge, research and practice. Understanding and changing the dynamics of

the interactions through nursing action enhances the health and well being of humans.

The patterns of dimensions and levels of environment mentioned in this chapter are written as if they were clear cut and discrete categories. This was done for purposes of analyses. In actuality they were considered by the participants to be connected, overlapping, interrelated, and interacting. In order to illustrate these indistinct environmental patterns, I will discuss the issue of poverty.

Poverty is a world-wide occurrence and is connected with many dimensions of the environment on several levels. For instance, the social environment is closely related to the economic environment as poor people are often disadvantaged socially. They may be forced to live in isolated areas, or if homeless, live on the streets.

The economic and social environments are, in turn, connected to the physical environment by lack of food, clothing and housing. Poor people may become malnourished. Hungry children have difficulty learning in school. The homeless often suffer from exposure from cold weather conditions because of lack of heat and warm clothing. Lack of proper sanitation often result in illnesses.

The cultural environment is involved because the disadvantaged are often minorities who live in areas without community resources. Therefore, they must travel long distances and pay for transportation to obtain health and

social services. The schools in minority areas may be substandard. Therefore, poor minority young people may not get a good education, and thereby find it even more difficult to obtain jobs.

Poor persons seeking health care may encounter an indifferent ontological environment because of animosity from their social and health care providers. Facilities that poor people have access to are often understaffed, resulting in inadequate care.

The environment of everyday life may consist of oppression, hunger, cold, and demeaning attitudes by the public. Homeless people are often hassled by the police and stigmatized by the public. Poor children are often not welcomed at school and teased unmercifully by other children. Poor women often have to decide between taking a child for needed medical care, or providing dinner for her children.

Decisions made about poor people in the political arena affects all other environmental patterns. The health and well being of poor people are directly affected by political decisions that are beneficial or adverse to their situation. Such decisions are made at local, state, national, and global levels.

Effective action to address the issue of poverty must be holistic and include all of the identified adverse environmental patterns. To address only one element, such

as health care, without consideration of the other interacting patterns will be ineffective. For example, often we, as nurses, care for ill poor people whose conditions improve. Then they are discharged back to their same environment, only to reappear with a more acute disorder.

In sum, the participants believed that there are multiple environmental patterns. We are cognizant of only some of them. Environmental patterns were discussed in terms of dimensions and levels. Dimensions included the physical, social, cultural, economic, political, ontological, human social relations, everyday life, time and space, and historical aspects. Levels included micro, meso, macro, global, universal, and cosmological patterns. Interactions between the various dimensions and levels, and between humans and the environment, were considered of equal importance as the dimensions and levels themselves. The importance that nursing places on interactions makes it unique among disciplines. The interrelatedness of environmental patterns was illustrated by a discussion of poverty.

This upstream (rather than mainstream) group of participants were not just abstract theorists. They linked their philosophical and theoretical ideas with praxis-- reflection upon the world in order to take action (Freire, 1970). Reflection is our best thoughtful and critical

thinking about an issue that results in a world view. Once we achieve this world view, we can begin to act in a manner that is consistent with our world view. Once we act, we reflect and evaluate our actions and alter our world view, and then act according to our changed world view (Chinn, 1982). Thus, theory and action, instead of being separate endeavors, become one process.

The participants linked their alive, whole, and interacting world view of the environment to nursing actions that far transcend traditional nursing practice. Their broad and sweeping environmental world views resulted in recommended nursing actions directed toward broad and sweeping environmental arenas. They recognized that their ideas were in contrast to the prevalent patriarchal, reductionistic world view that dominates nature, women, and other marginal groups. They demonstrated an ecofeminist approach by recognizing the connections between the oppression of nature and women, including the nursing profession which is mainly comprised of women. They realized that the oppression of nature and women are linked together as one cannot be liberated without the other. They believed that nursing must liberate itself in order to do its part in the liberation of the environment.

CHAPTER 7

Nursing action: From Oppression to Power

A major theme running through all ideas for nursing action was change. The envisioned changes were not minor, but were sweeping, basic, and fundamental in scope. As one focus group member described it:

I think that we (nurses) just engage in very parochial activities. We have to expect that the revolutionary task will not maintain the system. It's really changing and realigning, and relearning, and reordering, and rethinking.

The predominant change recommended by the participants was advancing the profession from being an oppressed group to being in power. Part of the process of liberating the profession was broadening the definition of the nursing client, and moving nursing's focus from the micro environment to the macro environment.

Liberating Nursing from Oppression

The first and primary change recommended by the participants was moving the nursing profession to a position of power. The issue of oppression and empowerment permeated throughout discussion of all aspects of nursing as well as women in society at large. This theme emerged quite spontaneously as it was not in any of my original questions, although the participants knew that I come from an

ecofeminist perspective. However, once that I noticed that it was such a strong theme, I asked participants to react to it during individual interviews. The participants believed that oppression of the profession has kept nursing from acting within the larger environment in order to achieve its potential of becoming a strong beneficial force for the health and well being of humans. This is how the subject of oppression was introduced during the focus group:

I think that another one of the words that we don't think enough about is the whole concept of oppression. You can't forget that society's dynamics come from the dominant ideology. You still have to remember the patriarchal forces that make us so oppressed as a group no matter how many doctorates and FAANS that we have. The fact is that most nurses live and work in a very oppressed environment and are really afraid to connect with one another.

The participants viewed the oppression as coming from prevailing social structures and a profit oriented capitalistic system which results in an unequal distribution of resources. Persons who are outside these systems are oppressed. They believed that the health care system, one of the social structures; is under the control of insurance companies, pharmaceutical companies, hospital administration, and physicians. Nurses have little power within the structure. One well known theorist and scholar

spoke about the dominion that physicians still have within the health care system.

I mean, this is a patriarchy; being the only female among all of these men--physicians. They couldn't understand a quarter of what I was talking about. I have to constantly dance and work that through in some way that is acceptable, but with the physicians still holding the reins.

Nurses represent 67 percent of the health care providers and yet have very little influence on health care policy. The profession is too divisive and disorganized to make a significant impact on changing the health care system (Sohier, 1992). Internal conflict is often a characteristic of oppressed groups who fear to take out their aggression upon the dominant group (Roberts, 1983).

Characteristics of oppressed behavior

Roberts (1983) wrote that the fact that nurses lack autonomy, accountability, and control over their own profession supports the view that nurses are oppressed. Characteristics of oppressed behavior include low self esteem, internalizing and taking on the values of the oppressor, dislike for other nurses, lack of cohesiveness, fear of success, dependency and submissiveness, and passive-aggressive behavior. Several instances of oppressed behavior was related by the participants who believed that

such behavior has kept the profession from being effective in society's larger arena.

One attribute of an oppressed group that has internalized the oppression is "horizontal violence." Horizontal violence was described by Freire (1970) as striking out against one's own comrades rather than directly attacking the oppressor. Roberts (1983) noted that divisiveness in nursing is a form of horizontal violence.

Horizontal violence was experienced by almost all of the participants. An example of horizontal violence is being kept in the periphery and out the mainstream of the profession. Almost all of the participants spoke of being marginalized and not feeling accepted within their own profession. This marginalization was described in Chapter 3. There were other examples of horizontal violence. One person related that she was criticized by her nursing colleagues for doing multidisciplinary work and publishing her dissertation findings in a journal other than nursing.

When I switched my dissertation topic, one of my advisors said, "I don't think that you are doing nursing." So that kind of weirded me out. I went and spoke with _____ (the dean of the school of nursing) who did support me. I don't know very many people who do what I do (occupational environment). But sometimes I feel like I'm criticized by nursing because I do a lot of multidisciplinary things. Also, my

dissertation findings are being published in Neurology.

I publish in nursing journals also, but I really wanted to publish where the people who deal with the disease read. And they read Neurology.... They (nursing colleagues) talk like I was a traitor or something, or that I thought that my dissertation was too good to be published in a nursing journal, which isn't the case at all. It was just the situation.

Submissive behavior is another characteristic of oppressed groups. Low self esteem creates submissiveness when dealing with the dominant group (Roberts, 1983). An example of submissiveness was related by another scholar.

I was just at a meeting where they (nurses) said that they "hate what we have to do, but this is what we have to do." That's an oppressed group that says that. If you listen to the directors of nursing (or whatever nurse managers are these days), they use different terms, but say the same thing.

Although the participants were well aware of the reality of oppression of the profession, several felt that nurses have continued to internalize the oppression even though oppressive conditions are beginning to ease a bit. Some of them believed that nursing has contributed to its own oppression by "playing the victim role" and keeping that script going rather than coming into its own power. They were quick to recommend that the nursing profession itself,

by its own actions, must move out of the oppressed role to one of power. They felt that under the present political situation there was a good possibility of nursing becoming liberated and a major force in the health care system. As one person said:

Clearly there is oppression. But it is because we have all been so dominated by the patriarchal thinking that we see ourselves in that model, and we've let other people put us in that model, and we've internalized it. That's the oppression! ...I think that if nurses can reconnect with their own power, and see their own identity with it, and relocate themselves within this other paradigm (healing and caring), then it will be very liberating.

The participants had many ideas of how to move the nursing out of its oppressive situation. Empowerment will come from acting within nursing's own paradigms and feminist models, and speaking with a unified voice.

Empowerment of nursing

Liberation from oppression comes from recognizing the reality of the oppression and taking transforming action upon that reality. This is accomplished by praxis-- reflecting upon the oppression and then taking action based upon the insights gained (Freire, 1970). The actions that the participants recommended included the promotion and utilization of nursing knowledge, the elimination of

hierarchy and status differentials, and the liberation of nursing education.

Promotion and utilization of nursing knowledge

A forceful recommendation was made that nursing find its strength within its own knowledge and essence. According to Meleis (1991), the purposes of nursing knowledge development are the empowerment of: individual nurses; the discipline of nursing; and, clients to care for themselves. The participants noted that nursing's power is located within itself, it's own strength. The liberation comes when the profession follows its own paradigms and models rather than following models from medicine and other disciplines. One participant expressed it this way:

We have tried to locate our strength within the patriarchy. As we come out of that, and unravel that, we will see that our strength is embedded in the very nature of our practice--healing and caring activities as well as our ways of being. That is power!We have our own models which are the feminist models; ecofeminism, radical feminism, whatever words that you want to use. But it's a whole different model....This is not a model just because we're women; it's for the survival of the world--for all living things.

The participants recommended that all types of knowing be incorporated into nursing education and practice. Nursing, until recently, has followed only the patriarchal

ways of knowing that are rational, cognitive, technical and empirical. Knowledge development in nursing is beginning to incorporate more feminist ways of knowing which are esthetics, ethics, intuition, metaphysical, and personal knowing (Watson, 1989). The profession should continue to develop its knowledge base utilizing feminist ways of knowing.

One principle of feminism is the elimination of hierarchy among individuals and groups. Biomedical and technical models, which the profession has historically adopted, are based on hierarchy. Moving away from these models towards nursing and feminist models were considered the key to empowerment of the profession by the participants.

Elimination of hierarchy and status differentials

In its efforts to achieve professional status, nursing has followed the traditional male model of professionalism which is hierarchial and exclusionary. This has resulted in a great divisiveness among nursing along educational, class, and color lines (Melosh, 1982). The need for the profession to address this was mentioned by several of the participants. One said:

I think that nursing is suffering a great deal from being located in universities that are the last vestiges of extreme hierarchical systems with power

differentials and status inequalities. It's just mind boggling!

Moving nursing education from hospitals to universities has moved nursing students from the patriarchy of hospital administrators and physicians to the patriarchy of the university. The participant went on to say that by the time that students got all of their education based on a hierarchial model and became seniors taking community health, they didn't know where to start with working cooperatively with the community. And they don't know how to deal with a professor who says, "This course is up to you."

This same professor is on an academic panel on diversity, education, and administration at her university. She related the following:

And so I said, "Look, we can't begin to tackle this problem unless we focus on the administration of schools of nursing and deal with these kinds of problems of hierarchy and status differentials and deal with the same problems within our nursing service systems. And then how do you educate administrators of either educational programs or nursing service systems differently so that the leadership changes and we begin to solve this problem."

Nursing leaders generally are white, middle class women. Staff nurses are stratified according to educational

levels of baccalaureate degree, associate degree, and diploma. This has resulted in class divisions among nurses and has led to conflict between staff nurses, union nurse leaders, academic leaders, and health organizational nursing leaders. These splits in nursing have prevented a united and strong nursing voice which could be the basis of power (O'Neill, 1992).

A good way to eliminate hierarchical and status distinctions is to begin with nursing education. Moving nursing education from oppression of students to empowerment of students will require changing the educational environment by changing student-teacher relationships, the curriculum, and student clinical experiences.

liberation of nursing education and practice

Freire (1970) described the traditional mode of teaching as the "banking concept." The teacher is the knowledgeable one who is master of the subject. She selects the content of the course, lectures or otherwise transmits knowledge, and evaluates the student. She deposits knowledge into the student who knows nothing about the subject, is compliant, adaptable, and accepts the teacher's ideas. Freire concluded that banking education is oppressive and treats the student as an object and product.

Freire recommended that education be problem-posing with dialogue as the method of learning. Dialogue requires direct involvement, and stimulates reflection and action

upon real issues which is both educational and liberating. The participants echoed Freire's concepts and had several ideas for liberating nursing education. A major recommendation was to change the student-teacher relationship from one of power over to one of equality. One participant said:

We are always comparing students to a finished product. Somehow they are incomplete until they have these things funnelled into them. And I feel very strongly that changing teaching-student relationships is just really critical.

A more egalitarian relationship will empower both students and faculty. One participant explained how she was attempting to do this in a class that she was teaching.

This is been a very supportive kind of a quarter for me, by having the chance to interact with these students because I feel much freer. We have such good conversations where they're exploring and I'm exploring, and we're all kind of doing this together. So it's a real learning community. Sure, I have more experience, and know the literature more, and have given more thought to some of these things than they have. But we're also out there learning together which is very exciting.

One way to equalize power relationships with students is to eliminate the adversarial nature of the relationship

and develop collaborative relationships. One participant said:

I think that the nursing faculty also needs to be thinking about working collaboratively with their students. That's a piece that's been glossed over the years that needs to be developed....We're all about the same thing and sometimes it becomes an adversarial role.

The participants' concerns with the teacher-student relationship is also of primary concern of the National League for Nursing (NLN) sponsored Curriculum Revolution. The present Curriculum Revolution began in 1986, first under the auspices of the Society for Research in Nursing Education, and later with the NLN. There have been a series of national conferences and interim meetings to consider the changes needed to launch nursing education into the next century (Tanner, 1990b).

The conferences resulted in a number of publications and a multitude of recommendations for change. Some of the most significant recommendations for reform involve a shift of the focus of education from content to (a) critical thinking, (b) collaboration, (c) shared decision making, (d) the social epidemiological viewpoint, and (e) assessing and acting at the systems and aggregate levels. NLN anticipates that nursing practice will increasingly take place in the community based delivery system. Therefore there is a need

to educate nurses for macro level actions rather than for micro individual situations (Moccia, 1993).

Relating to students in an egalitarian way constitutes a transformative world view that allows for multiple alternatives to the Tyler-behavioralist model for educational practices that nurse educators have avidly followed (Tanner, 1990a). Some specific approaches to a more equal relationship discussed during the NLN curriculum discourses were: (a) a student directed, contractual program (Danner, 1990), (b) independent study with limited structural content (Danner, 1990), (c) negotiated measure of success (Danner, 1990), feminist process (Wheeler & Chinn, 1991), (d) connected model (Symonds, 1990), (e) critical thinking (Allen, 1990), (f) writing to learn (Allen, 1990), and (g) coaching (Farley, 1990).

Bevis (1990) wrote that nursing education needs a transformative, integrative, and praxis related framework that is supported by feminist and critical social theories. According to Bevis, the curriculum revolution is not so much about changing the content of the curriculum, but to acknowledge that the curriculum is actually the learning that takes place among students and teachers, and among the students themselves.

She (Bevis, 1988) maintained that the Tyler, behaviorist, objective, technical model of curriculum development used by nursing educators is a training model.

It is useful for teaching the technical aspects of nursing. It ignores the higher levels of thought processes and cannot support the changes in nursing education that are necessary to keep pace with society's changing demands.

The participants acknowledged that students needed to be taught the technical aspects of care, but felt that it was more relevant to teach them in a manner that require deeper levels of thought processes in order to meet the challenges posed by today's world. One participant pointed out that it takes little time to prepare a nurse clinically; however, it takes a lot of time to teach students to be able to function wholly in the world and come into their own power.

Now, I believe that it takes a lot more time to make somebody feel empowered. To make people able to work within an organization and network with other people-- all populations; multiethnic, multiracial, not to be homophobic, to teach people to be straight, to be clear. I think that these are the things that take time in the curriculum.

Changing the curriculum from one based on the medical model to one based on liberal arts was a recommended change. A focus group participant discussed what she considered essential in an empowered educational curriculum:

I would not give out a degree at my university to anyone who wasn't expert at peace-making, peace-

keeping, negotiation, conflict resolution, plus what it takes to be an earth citizen.

She said that a revolutionary curriculum like the above does not exist in nursing schools and noted that, "We're moving well beyond what most of our educational systems can cope with."

Changing student clinical experience was another priority in liberating nursing education. The participants spoke of designing nontraditional clinical assignments that get students into the real world where they can take on large problems and do something significant. One participant said:

Get students out of patient assignments that are so structured....Stop all of these inane experiences and get them working in areas where we know that they should be working.

Another spoke of giving students meaningful experiences at all levels, individual and aggregate, instead of breaking the experiences down into meaningless, boring situations. Let the students tackle large, complex problems instead of always focusing on minor problems.

Once you sort of break something down to its smallest parts, you've taken all of the meaning out of it. The students don't really learn. I really believe that!

In what settings could students really learn to solve important problems? Hospitals will no longer be the central

focus of delivery of health care, which will increasingly become community based. Therefore one of the major recommendations of the Curriculum Revolution is that students be prepared to function in all modalities of care (Moccia, 1993). Some of the nontraditional settings that were discussed were: outpatient settings such as office practices, diagnostic centers, and group practices; health maintenance organizations, managed care programs, public clinics for the indigent, shelters for the homeless, rescue missions (Woolley & Costello, 1988), and long term care facilities (Chopoorian, 1990).

Recommendations of the Curriculum Revolution strongly urged that students be prepared for community based practice, but they did not address student experience within the broader environment. By contrast, the participants recommended that students be taught to take on society's larger environmental problems. One participant noted that there were very few nursing schools in the country that are prepared to educate students to assume a larger environmental role.

Some of the most innovative educational programs and efforts in the country begin to really educate students in way that could be supportive of a concern for the environment. There are just a few little innovations. You can almost count them on one hand

across the country. But most nursing educational curriculums are just mired.

One participant recounted some of the horrendous environmental disasters that have happened in her area in the last few years. She believed that faculty had an obligation to make students aware of these incidents and to know how to address them.

I think that the major agenda that we have looked at in terms of all of this is to move students into a broader arena so that they become more socially active and know what to do to address some of these issues. We're moving into another domain.

This participant went on to say that every one of the students at her university in the nursing program knows how to lobby state officials about environmental and social issues.

The activist theme was continued by another focus group participant who suggested that faculty has to rethink everything that a student does. She suggested that faculty get students out of structured, traditional clinical settings and then model activist behavior with them.

I feel that faculty; for example, if somebody is raped, or if something happens in your immediate community; that you speak out about it. That would be the kinds of things that we would have to do, revolutionary things. You could hold a press conference, you could

call your senator, and you could call the governor. You really act. You act right away. You have a method of response. You really act upon the world. And I believe in these kinds of clinical experiences, if you can call them that.

The participants noted that just talking about these kinds of changes in nursing education will not make them happen. Some felt that changes will not occur until there are rewards for teaching in a more empowering manner. As yet that has not happened. Although they talked about the need for rewards, they discussed their own experiences with teaching in a manner that empowers students, presumably without a structured reward system.

How can the structures of education and practice be changed in order to create a more liberated nursing environment? This issue was discussed at the focus group. One member suggested that the place to start is with changing the leadership:

I think that the thing to do, at least at the school level, is to attempt to move some of the broader thinking younger people into leadership positions. They can be chairs of departments, chairs of curriculum committees, or task forces, or whatever, And shift curricula so that the importance of clinical nurses is recognized. And the importance of organizational and policy dimensions that affect clinical practice can be

made and structured into the curriculum so that individual nurses can see themselves in several larger contexts, and what creates those contexts, and then how they can act in organizations.

...If we educate our practitioners who are going into the (practice) environment as how to deal with the organization, and with the same strategic thinking, move them into leadership positions, organizational positions, or administrative positions in order to change the structure of practice, then we can make the changes that we so readily mouth.

The participants believed that, currently, nursing has a real opportunity to break out of its oppressed state. Nursing is situated at the present time to take a leadership position and make significant contributions to health care in this country. One participant described how she perceived the situation:

I think that we are in a kind of critical juncture in nursing with respect to the oppression piece. There is the culture of oppression where oppressed people begin to contribute to their own oppression. And I think that certainly is where nursing has been. We haven't been paying attention to our numbers, in particular. And we haven't tried to break ourselves out as individuals, and as groups, and ultimately the whole profession, out of the cycle of contributing to our own

oppression. Frankly, with health care reform now, and given how much nursing has been listened to--we may find ourselves in the situation of "be careful what you wish for, you might get it." Because I think that there is a very good possibility that we're going to end up with health care reform where nurses are going to be--not only in the mainstream--but out in front and in charge. We can't be whining anymore and saying all of the things that oppressed people say. We've got to get out there and get the job done.... We are in a very interesting historical junction right now. And I sure hope that we emerge victorious!

The participants believed that nursing is beginning to break out of its oppressed state into one of power. The profession will need to change in several directions in order to achieve sufficient power to have a significant effect upon the environment. In addition to becoming empowered, the participants felt that the profession must also believe that the environment is a bona fide focus of nursing action. That, in turn, entails expanding the concept of the nursing client, and moving the direction of nursing action from the micro to the macro environment. The purposes of making these changes in the profession are to enhance and protect the health of humans who are in grave jeopardy from environmental hazards.

Broadening the definition of the nursing client

The second change, broadening the definition of the nursing client, included an emphasis on moving the entire nursing profession into working with groups and populations rather than focusing on individuals. Groups and populations were considered the collective client. In addition to the collective client, the participants envisioned the environment itself as being the nursing client.

Moving from the individual to the collective client

Public health nurses have long been engaged in population based nursing and have considered the community to be the nursing client. However, the importance of the collective client has not been emphasized by nurses in other work situations. The participants believed that the nursing profession, as a whole, should move its focus away from the individual client to the collective client. They gave four reasons why this move is urgently needed at the present time. The first is that nursing action focused at the individual level is time consuming and costly and does not meet the current needs of the public. Directing nursing action to the collective client is therefore a more effective use of nursing's resources. The second is that it is compatible with the envisioned Curriculum Revolution (Moccia, 1993) advocated by nursing educational leaders. The third is that it is in line with the federal initiative Healthy People 2000 (USDHHS, 1991) with its emphasis on

health promotion and illness prevention in order to meet national health objectives of the population. The fourth reason is that there are numerous opportunities for nursing to provide population based services in the health care reform proposed by the Clinton administration.

The basic idea in population focused nursing is that health related problems at the aggregate level are identified and solutions proposed, implemented, and evaluated for defined populations or subpopulations (Williams, 1992). One participant expressed her vision of population based nursing. "I think that nursing has a role in looking first at the environment, not the person; and then looking at the person in the environment." Later in the interview she described what she believed that nurses could do population-wise in the physical dimension of the environment:

I'd say that there is a whole lot that we can do in terms of communicable diseases, in terms of Tb transmission, in terms of water and air quality. There's a whole lot that we can do in terms of promoting environments that are safe. There's a whole lot that we can do, from sick building syndrome, formaldehyde from partideboard and stuff like that. I think that there is a whole lot that we can do in terms of assessment. We can look at people in their own environment. This whole idea of dealing with people in

the hospital is crazy. It is a horrible environment in itself! You know that nurses can get more (health related information) in 10 minutes in a home that they can get in six days here (an outpatient facility).

In practice, it was recommended that solutions and interventions be directed toward the interactions of the collective client with the environment. The interventions are multifaceted and for the purpose of changing the dynamics between people and their environment in order to enhance health. As one participant expressed it:

It's in the dynamic that the nurse does the intervening. Since nursing interventions rest on interactions, you have to find out how to interact with people in the collective in order to bring about interventions at that level. Otherwise intervention is always at the individual level which is highly costly, and labor intensive.

Advocacy at the collective client level was another concept that was discussed. The participants wanted to make sure that this core value of nursing did not get lost at the collective level. One professor who teaches nursing leadership believed that many nursing leaders have abandoned their advocacy role.

That's where I think, sometimes particularly nurse administrators have capitulated to the business

mentality in a way that has been highly undermining of nursing's mission.

Another participant pointed out that nurses are well situated for advocacy at the population level because they are not hired by specific companies such as the water department or sewage department, and therefore can look at broad parameters that affect populations. She went on to say:

That is one of the benefits of being a nurse really. We can look at the social context. We can know about the physical context. We know about interpersonal things. We can look at it from many different levels. I think that I feel pretty good about addressing local complex issues.

In addition to emphasizing the concept of the collective client for the entire discipline of nursing, the participants recommended an even greater broadening of the concept of the nursing client. They suggested that the definition of the nursing client be expanded to include the environment.

Defining the environment as the nursing client

The expansion of the concept of the nursing client to include the environment goes beyond the recommendations of the Healthy People 2000 (USDHHS, 1991) and the Curriculum Revolution (Moccia, 1993). Can the environment itself be considered the nursing client in addition to the traditional

nursing client of individual, family, or group? This question is crucial in order to determine if nursing should be practiced directly in the broad environmental arena.

All but two participants strongly considered the environment to be a legitimate nursing client. This is not surprising because criterion for the participants' selection was that they had addressed some aspect of the broader environment in their work. They believed that nurses have a role in intervening in all of the dimensions and patterns of the environment that were mentioned earlier. Frequently discussed were nursing roles in the physical, social, cultural, economic, and political environments. The reason why the environment itself should be the nursing client was expressed by one participant:

If the planet is not healthy, or the environment is not healthy, then the person is not healthy. And we're all interlocked in this process. We're all interconnected with this. Then it makes the case for the environment itself (as being the nursing client), and it would also begin to make a case for what Patricia Moccia talked about, social activism and caring. Moving out into the poverty, and the homeless surroundings to the historical perspective in terms of what is the social action that comes by looking at changing our environment. So it is beyond that individual, traditional, in the hospital, kind of environment.

Related to expanding the concept of the nursing client to encompass the collective client and the environment itself, were moving nursing actions from the immediate surroundings of the individual to the greater environmental arena. This move from the micro to the macro levels was envisioned by the participants as resulting in revolutionizing many of nursing's roles.

Directing nursing action to the macro environment

Moving nursing action from the individual micro level of environment to the broader macro level of environment was a third change that was strongly recommended for all areas of nursing. As one participant expressed it:

And I think that nursing in particular needs to make that quantum jump because we have as professionals much to offer the greater community, and we are basically diamonds in the rough. We need to develop our knowledge base in the greater arena.

Changing nursing action from the micro level to the macro level were discussed in the areas of development of nursing knowledge, research, education, and practice.

Nursing knowledge

The participants considered nursing's present, almost exclusive, focus of nursing knowledge on the micro level of environment to be a serious problem for the profession.

But when I looked at the (environmental) paradigm, It occurred to me that if you think about how we perceive

in nursing, and teach in nursing, and tell people about it, we tend to do all of it around person. Our clinical world is structured around ourself, the nursing person, and how we think about illness. ...I think that it is just one of the major terrible problems. All of it is thought about in the context of the person, and this is not advancing either what we do for people or advancing a person's situation. It's just sort of spinning around a lot.

Some participants mentioned that the reason for nursing being so individualistic and particularistic was because of the influence of other disciplines that are also individualistic. Individualism is the tendency in Western thought to consider "man" as the center of the universe. This propensity for individualism is reflected in nursing's history of theory building. One participant reflected upon the reasons for nursing's adherence to the individualistic paradigm.

Because if you think about the period of time in American nursing when a lot of these theories developed, it was also a period of time in which medicine was very dominant. And medicine has always been primarily oriented to individuals. That's one factor. I think that a second factor is that as nurses got doctorates, they got them in fields that were highly individualistic, like psychology and social

psychology that were themselves oriented to individuals. And so you ended up having an infusion of thought in that way.

However, she did believe that the individualistic focus in theory development was giving way to broader conceptual frameworks.

Now we are beginning to get nurses who are getting doctorates in such areas as economics and political science. So I think it's going to take a while before those nursing models begin to emerge.

Most of the participants believed that nursing needs to go beyond traditional nursing theory and the domain concepts into a much broader arena. Nurses are urged to read widely, go to conferences, and otherwise acquire knowledge in other areas and disciplines in order to access all available knowledge.

I personally am not wedded to nursing theory. I believe that it's a real problem to even say "nursing theory." I'm very critical of that whole view. I believe that we have knowledge in the world that all of us have access to, and we need to perhaps take that knowledge and use it. And what we really mainly need to do is to redefine and rethink.

Other participants noted that theory building in nursing is fairly recent, and were optimistic that nursing theory will

develop and evolve into a unitary and transformative metaparadigm.

I think that all of the discourse that is going on, and all of the writings on nursing theory have been incredibly important and moved us forward. But I think that we are really moving beyond current nursing theory, I really do, and beyond the domain concepts. She went on to say that the exciting thing that was happening in nursing theory is the convergence of its key perspectives...

...which is a unitary perspective. Which is the acknowledgment of the environment. It is the acknowledgment of the ontology or the notion of being at some level; whether it is the notion of caring, or the notion of human relationships. It's using some of the work that Barbara Sarter did with the transcendence of the direction of energy, the process; not the nursing process in the old way; but process, and relativity of time and space, patterning. All of those things, I think, are beginning to merge into a better informed paradigm.

Sarter (1988) compared the philosophical perspectives of four nursing theorists; Rogers, Neuman, Watson, and Parse; and found common shared holistic themes of process, evolution of consciousness, self transcendence, open systems, harmony, relativity of space and time, pattern, and

holism. Process is the evolutionary change of human consciousness, Self transcendence is the method of the evolution of human consciousness which transcends to higher and higher levels toward unity with the universe. Open systems are the dynamic and continuous interactions between the person and the world. They are essential for the evolution of human consciousness. Harmony is considered to be both within the person, and between the person and the environment. Space and time are nonlinear, relative, and fluid, with the past and future merging into the present. Pattern is information that represents the whole. Pattern recognition is nursing action that looks for those patterns that represent the whole, rather than looking at the parts of the whole. Sartre concluded that these common themes form a powerful metaphysical foundation for the further development of nursing theory.

The holistic themes in this metaparadigm are congruent with the participants' environmental world views. Further development of the metaparadigm offers a philosophical base for moving nursing knowledge from its present micro focus to a macro level.

Nursing Research

This new unitary, transformative nursing metaparadigm can also be entered into through research which has the potential for moving nursing's research agenda from the

micro level to the macro level, and to the interactions between the various patterns of the environment.

Nursing research was almost nonexistent until the 1950's when nursing education became associated with higher education. Academic faculty realized that nursing programs required a theoretical and research base, but were influenced by medicine and other disciplines to follow the natural science research tradition that is objective, reductionistic, predictable, and quantifiable. Thus, many of nursing's nonquantifiable values such as intuition, feelings, holism, and subjectivity were submerged because they were not testable (Watson, 1981).

Nurse researchers are now giving up their exclusive reliance on methodologies adopted from natural science and medicine because these methods are unable to address many of nursing's questions. They are now beginning to use whatever methodological approach that is congruent with nursing values and makes sense for studying their phenomena of interest. One participant, who is a quantitative researcher stated:

I think that some of the biggest damage that was done to nursing's knowledge development was the years in which we tried to adhere to the dominant and positivistic orientation of the modern era of science, and closed ourselves off from even modes of inquiry that nurses had embraced prior to when nursing moved

into the university and tried to establish itself as a science. We have had lots of good examples in the nursing literature of nurses using all sorts of ways to understand people and their health, and interaction with their environment. And we need to embrace all of these.... I think that our modes of inquiry should be very broad and inclusive and eclectic. I think that we need to nurture the poets and the artists amongst us, and we need not to disparage the causal modeler amongst us. But there does need to be some balance. ...And we need to call back into our tool box of inquiry, other ways of knowing from the premodern era, and from whole new thinking.

Nurses are now exploring a whole range of research methods in addition to the traditional scientific methodology of the natural sciences and medicine. Existing qualitative methods, philosophical research, and newer qualitative methods such as feminist research, dialogical research, narrative analyses, and various esthetics research methods are being used. These are all broader and more contextual in nature than those methods used by the natural sciences and show great promise for moving nursing research into the broader environmental arena.

One area of the broader environmental arena that is crucial for nursing inquiry is research on interactions. As discussed earlier, many of the participants believed that

the idea of interaction is important and unique to nursing as a field of inquiry. They indicated that the interactional processes are not well understood and they emphasized the need for study in this area. Interactions between the various environmental levels and dimensions, and between humans and their environments were mentioned as fruitful areas for research. As one researcher stated:

I think that there are processes of interactions between the micro and the macro that we have not begun to understand. We have some knowledge of how individuals act in relation to health and we have some knowledge of how the collective acts, but what we don't know is what the dynamic is between the individuals and the collective. That is one of my most important questions.

In addition to discussing moving nursing knowledge and research from the micro to the macro environment, the participants discussed moving nursing education from the micro environment to the larger arena. They considered the present educational system completely antiquated and not meeting the public's health needs. They recommended fundamental reform.

Nursing Education

Moving the focus of nursing education from micro environmental considerations to concerns with the macro environment was a strong recommendation of the participants.

Almost all of them were very critical of nursing education in this country and spoke passionately for the need for change. The participants spoke from experience since all 17 either are, or have been, teachers in university level nursing educational programs throughout the country.

The participants believed that as the nursing community is beginning to seek explanations and solutions, they've broadened and are beginning to realize that nursing and health are a part of a larger system. Nursing education must reflect this shift from the micro to the macro environment. One participant expressed her concerns this way:

In faculty meetings, what happens is basically inane....I think that faculties are basically good people who want to do good things. And the faculty as a body needs to have something to do that's pertinent to reality. And what it tends to do is to focus on policies of internal, the internal micro aspects of their own world.... And what they need to do is consider what they should be doing as a group that makes a social action force.

How do nurses assume social activist roles?

Chopoorian (1990) stated that social activism is critiquing the present health care system and not being an apologist for its inadequacies. She noted that nurses' power comes from witnessing human suffering caused by

inhumane public policies and an unequal distribution of society's resources. Social activism means forming alliances with other like minded groups to bring issues to community leaders, political figures, the press, and governmental bodies. And it means teaching students to function in the social, economic, and political environment that produces illnesses and conditions related to stress, poverty, and malnutrition.

Although the participants agreed that it was imperative for nursing education to make the major shift from micro environment to macro environment, they discussed three barriers that had to be overcome. The first was the accrediting body of the National League for Nursing (NLN, League), the second was the state boards of nursing, and the third was the faculty of schools of nursing.

Several of the participants commented that they could not change the nursing curriculum at their university to include what they knew needed to be incorporated until things changed at the NLN. The NLN is the national accrediting body for schools of nursing nationwide. Therefore schools of nursing must develop their curriculum within the NLN criteria. The NLN criteria are based on the Tyler model which is behaviorally oriented, quantifiable, explicit, and objective. In addition the NLN criteria have adhered to the biomedical and industrial models (Tanner, 1990b). Therefore, faculty in schools wishing to

incorporate a more holistic, caring perspective must frame their educational objectives in objective and measurable terms or take a risk in not becoming accredited (Bevis, 1989). However, the participants believed that the NLN is changing.

Some things have changed at the League by them even sponsoring dialoguing conferences with the title "Curriculum Revolution." That in itself is encouraging. That is not to say that there aren't problems with accreditation, and there's a lot of work to do. But the fact that there is a new feeling about this, even to acknowledge it at the League. The present system is really archaic. It's not working. Presently the NLN accrediting body is allowing some flexibility for individual institutions, but the paradigm shift is far from complete.

Of even greater concern to the participants were the state boards of licensing. State boards also require behavioral type of objectives that are translated into components. Each state approves the schools of nursing within its borders. Without these essential components (which are quantified units of instruction), the school will not be approved by the state board. If a student does not graduate from a state approved school, she is not eligible to take state licensing examinations (Bevis, 1989). A nurse cannot practice in a state without taking the state

board examination of that state, or receiving reciprocity for having taken the state board examination in another state. Therefore state licensing boards exert tremendous control over nursing education and practice.

Several focus group members discussed the status of the state boards in their particular state. State boards are difficult to grapple with because there are 50 across the nation. The participants noted that there was no point to changing things at the NLN if changes were not also made at the state licensing level.

There are definite changes at the League that allow people to do the curriculum better. I believe that there has to be a comparable, something different at the level of the state boards of nursing. Maybe they will just disappear. States don't want to spend their budget on them.

Suggestions related to the state boards of licensing included (a) doing away with them, or (b) having one national licensing examination that all students take regardless of the state in which they reside. The participants pointed out that if the latter prevailed, there would be the advantage of having to deal with only one licensing body.

The third barrier to making the shift from the micro environment to the macro environment was the necessity of

enhancing consciousness and capabilities of the faculty.

One participant expressed it this way:

One of the questions that I have is, "How do we change our colleagues?"... My colleagues cannot adopt the perspectives of "let's listen to the people" or "let's move into the directions of what needs to be done which happens to be at the macro level."... They are refusing to think beyond the micro level.

Another participant believed that part of the problem of changing faculty lies within the structure of the university itself and how faculties are rewarded. "The rewards have been with the prescriptive regimented process" rather than with creative and innovative teaching.

One of the problems of moving education from the micro to macro levels is that faculty are not prepared to address that level of practice. Moccia (1993), who summarized some of the important recommendations that have come from the Curriculum Revolution, pointed out few faculty are facile with the role as an educator for a community-based primary health care system. Those that are preparing students for such a system teach what they know. They know the existing system, but not the different health care system that is beginning to be developed. She commented that faculty reform was needed before curriculum reform and recommended postgraduate programs to expand the expertise of current faculty in the areas of (a) out-of-institution clinical

sites, (b) population-based care, (c) relationships with consumers of health care, (d) principals and practices of public health, (e) interdisciplinary collaboration, and (f) new relationships to knowledge and technology.

Compatible with moving nursing's knowledge, research, and education from the micro environment to the macro environment, was moving nursing practice away from its individualistic approach to a collective and macro approach. Such a move will transform the way that nurses practice.

Nursing practice

The participants strongly believed that the nursing profession should become active in the political, social and economic dimensions of environment in order to enhance the health of humans. This idea was expressed by a participant:

My issue around it (the environment) is that we move off of the kind of psychosocial, personal perspective in nursing and address the social, economic, and political dimensions of the world. And by doing that, nurses should be able to have a larger arena for action. Nurses do need to be determining economic policy, and labor policy, and international policy.

Several of the participants noted that practice in the broader environment was not a new idea for nursing. They noted how nursing's early leaders practiced in the macro environment. One focus group member expressed this forcefully:

...the real heroines of nursing, from Nightingale and thereon, wherever you want to start. To me they seemed imminently aware of the political and economic environment. That's what they were really concerned about. And they didn't just work with nurses. They worked with any political and economic entity that they could. And that's how they moved!

The other members emphatically agreed with her and discussed some revolutionary actions that nurses should be taking in the political arena to improve the health of people. These included the destruction and rebuilding of our present production systems. One member said:

We all know that in order for this country to get off at where we're at, you have to deconstruct structure and reconstruct. And what we use as the modes of production has to change because they're polluting the environment and making people and workers sick.... And so what you have to do is just destroy the forces that create the factories that produce those pollutants and injuries and all of those kind of things.

Another member talked about when she moved into the political area, she came to realize that it was the distribution of economic and other resources in this country that needed to be changed:

I became interested in national policies. Initially, national health insurance. And as I worked with that,

and as I began to make comparisons with other countries and how they do it, I realized that the best national health insurance are national health services.

However, it was still not enough to solve the broader problems. It would help, but it wouldn't bring people whose health was not what it could be on a par with more advantaged people. And that where countries achieved this, it was because they had other kinds of policies to do with housing, and education and public facilities and so on. In other words, a more equitable distribution of resources.

The participants believed that the way to change and make things happen in the broader environmental arena was to organize and then link and network with other like-minded groups. As expressed by one member, "We need to be ready and able to take organized action, develop our skills, dialogue and critique, and then align ourselves with others." Groups that the participants suggested that nursing connect with for political and social action included consumer groups, community coalition networks, elderly advocacy groups, child care groups, and women's groups.

Another suggestion for moving nurses from micro to macro levels of practice was the establishment of nurse environmental specialists whose practice would be directed toward the environment itself. How would this environmental

nurse specialist function? Some of the ideas of the participants in how this specialist would perform in hospitals and other health care institutions were: (a) Consulting on environmental issues when building or remodeling is planned, (b) working with nursing students and patients to reconstruct their immediate environment, paying attention to energy fields as well as the physical aspect of the environment, and (c) serving as a resource and consultant to other nurses on environmental issues. Another participant had the idea of an environmental nurse specialist who would consult with all types of organizations:

I'd like to see where nurses develop expertise in consultation in terms of environmental nursing. They could come into your work site and help promote a good ergonomic work station. They could look at air exchange. They could help with light quality. They could help with the social aspects of it by helping people take care of personal matters. I think that we (nurses) could do that and get out in the real world and do all kinds of things like that. We're cheap enough, and we could do a pretty good job of it.

Interestingly, the recommendation to create an environmental nurse specialist was also made by three out of the four graduate students with whom I pretested my questions.

In sum, revolutionary changes were recommended by the participants that will change the nature of nursing. The changes were (a) liberating the nursing profession from the patriarchal domination under which it functions. Essential to the liberation of nursing was, (b) broadening the definition of the nursing client from the individual to the collective client, and by making the environment, itself, the nursing client, and (c) moving the focus of nursing from the micro environment surrounding the individual to macro environmental realms.

The participants believed that these changes were critical in order to meet the needs of today's society. They also considered them indispensable steps to the liberation of the nursing profession from the oppressive patriarchy under which it exists. They believed that the profession must be liberated in order for nurses to participate in the liberation of the environment, the two actions are connected.

Not all of the participants believed that nursing should make these changes. They believed that concern for the environment was a "citizen action" that nurses could and should do. However, that concern is not an appropriate nursing action.

CHAPTER 8

Other Voices

Throughout this study I have described the ideas and beliefs of the majority of the participants. The common characteristic that I used to select the participants in this study was that they each had addressed some area of the broader physical-social-cultural-political, or global environment in their work. There was remarkable agreement among them in many areas. For instance, all of the participants viewed the environment as whole, alive, interconnected and interacting. However, as one might expect, there was not complete consensus among them. In order to represent all viewpoints (Hall and Stevens, 1991), some of their divergent perspectives will be discussed in this chapter.

The primary areas of disagreement were related to the definition of the nursing client, and the focus of nursing action. Most of the participants believed that nursing urgently needed to expand its definition of the nursing client to include the collective client, and more encompassing, the broader environment itself. However, not all participants agreed.

Limit the definition of the nursing client

Two participants thought that it is the individual who is the nursing client, and that the environment should be

addressed only in terms of the individual. One expressed it this way:

I wouldn't see that we could have the environment as the client. I think that we can't lose sight of the individual person as the nursing client.

The community, rather than the individual, has long been considered the nursing client by public health nurses. Replying to the question on whether the community can be the nursing client, the same participant said:

Well I don't think so. I think that the community health and public health types very much think that, but I think that that is in the domain of public health.

Asked to respond to the argument that our early nursing leaders like Florence Nightingale and Lillian Wald mainly focused on environmental issues and seemed to consider the environment as the nursing client, she responded:

In Nightingale's case, it was for the sake of the individual, not the environment. I think that Wald, too, was interested in the individual. In both cases, it seems to me that they managed the environment to enhance individual well-being, much like Roy proposes today.

Another participant believed that whether the environment itself can be the nursing client is an ontological question that depends on a person's world view.

She firmly believed that people (in the collective) can be the nursing client, and that nursing should change its focus from the individual to the collective client. However, whether the environment itself can be the nursing client depends on the person's perspective.

Humans are still the client.... Nursing exists primarily because it has a special covenant with society; and therefore, first and foremost is oriented to persons. ...However, if you begin to conceptualize humans and environment as part of a larger natural order, and that there is a stream of consciousness and energy flow that is essentially boundarylessness...then you can't make that kind of distinction. And then the environment does become the client. ...The only way that I can come around to the notion of environment-as-client is in that very existentialist notion, or ontological notion that somehow the universe is itself Being.

Since two of the participants believed that only the individual could be the nursing client, it was expected that the same two participants would not consider the environment to be the focus of nursing action.

Circumscribe the focus of nursing action

Another area of disagreement was the focus of nursing action. Moving the focus of nursing action away from the micro, individual environment to the broader macro

environment was a strong recommendation made by all but two participants. Most of the participants believed that nurses should be acting within the broader physical, social, economic, political, and global environmental arenas. Human rights issues, pollution control, concern about the depletion of the ozone layer, and political action for accessible health care for everyone, were some of the broad areas that they believed were within nursing's realm of action.

By contrast, two participants believed that acting upon the broader environment is a nursing intervention only if it benefits the immediate nursing client. The more encompassing environmental activities could be performed by nurses, and might even be informed by nursing theory, but are done only as a private citizen, not as a nurse. One participant, referring to broader environmental actions said:

I don't think that they are nursing interventions. I think that they are citizen interventions. But probably my willingness to do them is provoked by my knowledge of the influence that a poor environment has on health problems. And my willingness to contribute as a citizen is very much provoked by my nursing knowledge. ...I don't think that they are nursing per se, but we could support legislation that does deal with them. And I think that we do that collectively

through our organizations and do it individually as citizens.

Another issue around the focus of nursing action was the issue of where nursing action should take place within the broad environment. Most of the participants believed that nursing should be involved in all aspects of the broader environment, and felt that it was critical that nurses move into the larger arena. However, one participant felt that nursing should limit its activities mostly to the broader physical environment. The participant explained the reasons why she believed that nurses should act primarily within the physical environment.

P: I think that trying to use the rubric of environment to stand for society, culture, and all of that doesn't really serve us well. It erases the really major area of the physical, earth environment.

DK: And the physical environment is what you believe that we as nurses should be addressing?

P: I think so. I think that it is a major influence on people's health. And as a kind of society, or world, we have lost any sense of respect for taking care of the environment. I think that we all need much more focus and concern on what it would mean to care for the physical environment and to treat it with respect. ...I think that in a lot of unconscious ways, people are pretty cavalier about treating the physical

environment with a lot of disrespect. They disregard the ways in which we could begin to turn that around, and what it would mean for the health of everybody on earth.

In sum, two participants did not agree that nursing should expand its definition of the nursing client to include the environment. They believed that the only legitimate nursing client is the individual. Another believed that the nursing client could be an individual or collective persons such as the community. However, she maintained that the environment could be the nursing client only if one came from a holistic environmental perspective of one unified, alive, and interacting organism.

Two participants did not agree that nursing actions should be focused on the broader environmental arena. They believed that nursing action should address the environment only in terms of the individual person. One participant felt that nursing should move its action to address the broader environment, but primarily focus on the physical dimension of the broader environment.

Those few participants who held significant contrasting views from the majority of the participants believed that nurses should be involved with environmental activities. However, their involvement with ecological concerns is as private citizens and not as nurses.

CHAPTER 9

Discussion

Using the concept of future search (imagining the future that we want to create and then developing the knowledge base to get there), and applying feminist research approaches; I asked 17 upstream thinkers (those who dealt with broad environmental factors that influence health rather than addressing the care of individuals after illnesses have appeared) to envision an ideal environmental paradigm for nursing. These scholars had addressed some aspect of the larger physical, social, cultural, economic, political, or global environment in their work.

The participants described a world of unity and wholeness that was alive, interconnected and interacting. They placed strong emphasis on interactions between various patterns of the environment and between humans and the environment. They believed that violence in any part of the environment affected the entire organism.

The participants expressed alarm with the environmental degradation that is occurring world-wide which affects the health of all people. They believed that nursing has not addressed the larger environmental conditions that affect health because of its adherence to the dominant ideology of the patriarchy, especially the medical model.

These upstream scholars' ideas are compatible with ecofeminism. Ecofeminists believe that the abuse and oppression of the environment is linked with the oppression of women, as both have been misused by the patriarchy. Liberation of nature cannot occur without liberation of women because of this connection.

Nursing, being composed mostly of women, has been exploited to the same degree as other women and nature. Because of the connection between the oppression of women and of nature, the participants believed that the only way that nurses can emancipate the environment is also to emancipate the profession. They made sweeping and revolutionary recommendations for the empowerment of the nursing profession.

In order to liberate the profession from oppression, the participants believed that nursing actions need to be informed by the profession's own holistic paradigms of healing and caring with the incorporation of other approaches, such as ecofeminism, in order to make the transformations that are needed. They believed that nurses must give up the medical model under which they have functioned for so long. Additional means of effecting this transformation included expanding the definition of the nursing client to include the larger environment, and focusing nursing actions on the environment itself.

To achieve the envisioned environmental world described by the participants, nursing theorists and researchers need to develop the knowledge base to get there (future search). Here are a few ideas of the approaches that nursing scholars might take.

1. Continue to develop and use nursing and feminist models in order to liberate the profession and transform the health delivery system.

Two examples of how this could be accomplished were given by Chinn. She (Chinn, 1986) suggested that health care centers be utilized as part of doctoral education where nursing theory and philosophy could be used in the administration and delivery of health care. The purpose of these health care centers would be for demonstrating, refining, and developing nursing knowledge. The outcome of these proposed centers would be to transform the health care system based on nursing and feminist theories and values.

The second approach is the continued development of nursing and feminist models which would result in transformed methods of health delivery. Chinn (1989) envisioned a "healing house" (p. 71) based upon nursing and feminist thought. The nursing model that she used was the patterns of nursing knowledge identified by Carper (1978); empirics (the science of nursing), ethics, (moral knowledge in nursing), personal (inner awareness) and esthetics (the art of nursing).

The feminist principle that Chinn used to create her healing house was "the personal is the political." Changing the everyday life of individuals in the healing house becomes political by changing the way in which health care is delivered. In turn, the political change in the way that health care is delivered, individually affects both the caregivers and clients.

The healing house is an illustration of combining nursing and feminist models in order to transform health of individuals and of the health care system itself. These two approaches to the development and use of nursing and feminist theories and models could result in a revolutionary change in the health care system. They would provide an entirely new health care environment for both clients and nurses, and at the same time affect the larger political environment by changing the way in which health care is accessed and delivered.

2. Use ecofeminist approaches by the incorporation of environmental and gender-sensitive characteristics into theory and research.

Ecofeminist approaches will lead to health perspectives that are generally not found in existing nursing theory and research. For example, White (1991) used feminist and environmental approaches in her analysis of disordered eating in women. She examined eating disorders from historical, social, political, cultural, and feminist

perspectives rather than from an individual biomedical approach. Her analysis resulted in recommendations for social and environmental rather than individual change.

Nelson (1990) noted that there are many questions unanswered regarding the impact of environmental factors on women in conditions such as infertility, birth defects, menopause, breast cancer, and allergic diseases. Using ecofeminist approaches in these, and similar conditions, nursing theorists and researchers could explore associated environmental influences that are generally not studied.

3. Explore macro environmental influences on health.

Related to the use of ecofeminist approaches that often addresses broad environmental issues, is the study and analysis of macro environmental influences on health. Aspects of the macro environment are complex and can involve any or all facets of the environment, e. g., physical, social, cultural, political, and global.

An example of the physical environment's possible influence on health is breast cancer. There has been a 20 percent increase in the incidence of cancer of the breast in the last decade. Many experts believe that low level radiation and synthetic chemicals, such as chlorines, are responsible for the increase in breast cancer in women (Women's Environment & Development Organization, 1992). Medical research has focused on personal life style, such as smoking and diet, rather than possible environmental causes

of breast cancer. Davis, Dinse, and Hoel (1994) assessed the alarming increase in breast cancer (and other cancers) and concluded that aging or smoking patterns could not completely account for increased cancer rates from 1973-1987. They concluded that changes in carcinogens in the environment have occurred and need to be studied further. Nurse researchers could direct their efforts toward possible environmental causes of breast cancer which are being ignored by mainstream research organizations.

Another example of macro environmental level nursing research and theory building is in the field of aerospace nursing. Polk-Walker (1989) discussed the nursing knowledge base needed to establish the discipline as a major contributor of space health science. She stated that the environment of the 21st century will be vastly different from the environment of today. She envisioned space industrialization and manufacturing, satellite solar power generation and space habitation. Therefore human needs and responses to microgravity must be addressed. She suggested that knowledge about human functioning in microgravity needs to be integrated into existing nursing knowledge. When this knowledge is developed, nursing intervention protocols need to be created and tested.

The opportunities for nurse researchers and theorists to address broad environmental influences on the health of humans are endless. Ecofeminist and nursing approaches in

this arena could bring unique perspectives and make substantial contributions to both environmental and health sciences.

4. Focus on the connections and interactions between environmental conditions and people.

The participants emphasized the need for understanding environmental interconnections and interactions which are the keys to the balance of the planet, and the balance between humans and the environment. They believed that this focus on interactions is unique with nursing.

Nelson (1994) concentrated on environmental-population interactions in her discussion of economic impoverishment. She stated that the adverse effect of poverty on health outcomes is well understood by nurses. However, the nature of these interactions and relationships are not understood. She discussed fundamental issues that must be resolved before effective action can be taken. One barrier to effective action was the lack of conceptual frameworks that target environments as opposed to individuals. In this example, nurse theorists could develop models that consider connections and interactions between environmental factors and population health outcomes. Focusing on interactions from a macro environmental perspective means that we make visible the connections between our collective actions and their health related effects upon everyone on the planet.

Changing from the present individualistic, circumscribed environmental model adhered to by most nurses, to a virtually unlimited, holistic view of the environment represents a major environmental paradigm shift for the nursing profession. Kuhn (1970) stated that when a paradigm shift is completed, the professional will be working in a new world.

Using nursing and ecofeminist paradigms, we will redirect our nursing activities from downstream to upstream actions. With our consciousness of the world as alive, whole, interconnected and interacting, we will know that if any part of the environment is not healthy, then humans are not healthy. We will consider the planet to be our client and develop our nursing knowledge base, and our practice to deal with this new world client.

REFERENCES

- Abdellah, F. G., & Levine, E. (1986). Better patient care through nursing research (3rd ed.). New York: Macmillan.
- Abram, D. (1985). The perceptual implications of Gaia. The Ecologist, 15(3), 96-103.
- Allen, D. G. (1985). Nursing research and social control: Alternative models of science that emphasize understanding and emancipation. Image: The Journal of Nursing Scholarship, 17(2), 58-64.
- Allen, D. G. (1990). Critical social theory and nursing education. In Curriculum revolution: Redefining the student-teacher relationship (pp. 67-86). New York: National League for Nursing.
- American Nurses Association, Council of Community Health Nurses. (1986). Standards of community health practice. Kansas City: American Nurses Association.
- American Public Health Association, Governing Council. (1982). The definition and role of public health nursing practice in the delivery of health care (Policy statement). American Journal of Public Health, 72(2), 210-212.
- Ames, R. T. (1986). Taoism and the nature of nature. Environmental Ethics, 8(4), 317-350.

- Anderson, J. M. (1991). Reflexivity in fieldwork: Toward a feminist epistemology. Image: Journal of Nursing Scholarship, 23(2), 115-118.
- Archer, S. E. (1982). Synthesis of public health science and nursing science. Nursing Outlook, 30(8), 442-446.
- Baly, M. E. (1986). Florence Nightingale and the nursing legacy. London: Crown Helm.
- Belsky, J. (1980). Child maltreatment: An ecological integration. American Psychologist 35(4), 320-335.
- Benson, E. R., & McDevitt, J. Q. (1980). Community health and nursing practice (2nd ed.). New Jersey: Prentice-Hall.
- Bevis, E. O. (1988). New directions for a new age. In Curriculum revolution: Mandate for change (pp. 27-52). New York: National League for Nursing.
- Bevis, E. O. (1989). Illuminating the issues: Probing the past. A history of nursing curriculum development--The past shapes the present. In E. M. Bevis & J. Watson (Eds.), Toward a caring curriculum: A new pedagogy for nursing (pp. 9-12). New York: National League for Nursing.
- Bevis, E. O. (1990). Has the revolution become the new religion? In Curriculum revolution: Redefining the student-teacher relationship (pp. 57-66). New York: National League for Nursing.

- Bishop, W. J. & Goldie, S. (1962). A bio-bibliography of Florence Nightingale. London: Dawsons of Pall Mall.
- Bleier, R. (1984). Science and gender: A critique of biology and it's theories on women. New York: Pergamon Press.
- Bohm, D. (1980). Wholeness and the implicate order. London: Routledge & Kegan Paul.
- Bohm, D. & Hiley, B. J. (1993). The undivided universe. New York: Routledge.
- Booth, A. L. & Jacobs, H. M. (1990). Ties that bind: Native American beliefs as a foundation for environmental consciousness. Environmental Ethics, 12(1), 27-43.
- Bronfenbrenner, U. (1977, July). Toward an experimental ecology of human development. American Psychologist, 513-531.
- Butterfield, P. G. (1990). Thinking upstream: Nurturing a conceptual understanding of the societal context of health behavior. Advances in Nursing Science, 12(2), 1-8.
- Callicott, J. B. (1982). Traditional American Indian and Western European attitudes toward nature: An overview. Environmental Ethics, 4(4), 293-318.

- Campbell, J. C. & Bunting, S. (1991). Voices and paradigms: Perspectives on critical and feminist theory in nursing. Advances in Nursing Science, 13(3), 1-15.
- Carper, B. A. (1978). Fundamental patterns of knowing in nursing. Advances in Nursing Science, 1(1), 13-23.
- Cheney, J. (1987). Eco-feminism and deep ecology. Environmental Ethics, 9(2), 115-144.
- Cheng, C. (1986). On the environmental ethics of the Tao and the Ch'i. Environmental Ethics, 8(4), 351-370.
- Chinn, P. L. (1982). From the editor. Advances in Nursing Science, 4(2), xi.
- Chinn, P. L. (1985). Feminism and nursing: Can nursing afford to remain aloof from the women's movement? Nursing Outlook, 33(2), 74-77.
- Chinn, P. L. (1986, June). Feminism, knowledge development, and client/environment interaction. Proceedings of the 1986 National Forum on Doctoral Education in Nursing (pp. 85-95). San Francisco, CA: University of California, San Francisco.
- Chinn, P. L. (1987) Response: ReVision and passion. Scholarly Inquiry for Nursing Practice: An International Journal, 1(1), 21-24.
- Chinn, P. L. (1989). Nursing patterns of knowing and feminist thought. Nursing and Health Care, 10(2), 71-75.

- Chinn, P. L., & Jacobs, M. K. (1987). Theory and nursing: A systematic approach (2nd. ed.). St. Louis: C.V. Mosby.
- Chopoorian, T. J. (1986). Reconceptualizing the environment. In P. Moccia, (Ed.), New approaches to theory development (pp. 39-54). New York: National League for Nursing.
- Chopoorian, T. J. (1990). The two worlds of nursing: The one we teach about, the one that is. In Curriculum Revolution: Redefining the student-teacher relationship (pp. 21-36). New York: National League for Nursing.
- Christy, T. E. (1984a). Portrait of a leader: Lavinia Lloyd Dock. In Kelley, L. Y. (Ed.), Pages from nursing history: A collection of original articles from the pages of Nursing Outlook, the American Journal of Nursing and Nursing Research (pp. 58-61). New York: American Journal of Nursing.
- Christy, T. E. (1984b). Portrait of a leader: Lillian Wald. In Kelley, L. Y. (Ed.), Pages from nursing history: A collection of original articles from the pages of Nursing Outlook, the American Journal of Nursing and Nursing Research (pp. 84-88). New York: American Journal of Nursing.

- Clark, M. J. (1992). Nursing in the community. Norwalk, CT: Appleton & Lange.
- Considine, D. M. (Ed.). (1983). Van Nostrand's Scientific Encyclopedia (6th ed.). (Vol. 1). New York: Van Nostrand Reinhold Co.
- Cook, E. (1914). The life of Florence Nightingale (2 vols.). London: Macmillan and Co.
- Cook, F. H. (1989). The jewel net of Indra. In J. B. Callicott & R. T. Ames (Eds.), Nature in Asian traditions of thought: Essays in environmental philosophy (pp. 213-229). New York: State University of New York Press.
- Danner, K. C. (1990). Our voices, our visions. In Curriculum revolution: Redefining the student-teacher relationship (pp. 37-46). New York: National League for Nursing.
- Davis, D. L., Dinse, G. E., Hoel, D. G. (1994). Decreasing cardiovascular disease and increasing cancer among whites in the United States from 1973-1987: Good news and bad news. Journal of the American Medical Association, 271(6), 431-437.
- Department of Health and Human Services. (1990). Healthy People 2000: National health promotion and disease prevention objectives. Washington, DC: Government Printing Office.

- Devall, B. & Sessions, G. (1985). Deep ecology. Salt Lake, CO: Perigrine Smith.
- Dever, G. E. A. (1980). Community health analysis: A holistic Approach. Germantown, MD: Aspen.
- Dossey, L. (1982). Space, time, and medicine. Boulder, Co: Shambhala.
- Eisler, R. T. (1988). The chalice and the blade: Our history, our future. San Francisco: Harper and Row.
- Ellis, R., (1982). Conceptual issues in nursing. Nursing Outlook, 30(7), 406-410.
- Farley, V. M. (1990). Clinical teaching: A shared adventure. In Curriculum revolution: Redefining the student-teacher relationship (pp. 87-93). New York: National League for Nursing.
- Fawcett, J. (1978). The what of theory development. In Theory development: What, why, and how (pp. 17-33). New York: The National League for Nursing.
- Flaskerud, J. H., & Halloran, E. J. (1980). Areas of agreement in nursing theory development. Advances in Nursing Science, 3(1), 1-7.
- Foley, G. (1988). Deep ecology and subjectivity. Ecologist, 18(4/5), 119-27.
- Freire, P. (1970). The pedagogy of the oppressed. New York: Continuum.
- Fry, S. T. (1983). Dilemma in community health ethics. Nursing Ethics, 31(3), 176-179.

- Fry, S. T. (1985). Individual vs aggregate good: Ethical tension in nursing practice. International Journal of Nursing Studies, 22(4), 303-310.
- Fry, S. T. (1992). Ethics in community health nursing practice. In M. Stanhope & J. Lancaster (Eds.), Community health nursing: Process and practice for promoting health (3rd. ed.) (pp. 69-89). Boston: Mosby.
- Goeppinger, J. (1988). Challenges in assessing the impact of nursing service: A community perspective. Public Health Nursing, 5(4), 241-245.
- Goeppinger, J. & Shuster, G. F. (1992). Community as client: Using the nursing process to promote health. In M. Stanhope & J. Lancaster (Eds.), Community health nursing: Process and practice for promoting health (3rd ed.) (pp. 253-276). Chicago: Mosby.
- Golley, F. B. (1987). Deep ecology from the perspective of ecological science. Environmental Ethics, 9(1), 45-55.
- Hall, J. M. & Stevens, P. E. (1991). Rigor in feminist research Advances in Nursing Science, 13(3), 16-29.
- Hamilton, P. A., & Bush, H. A. (1988). Theory development in community health nursing: Issues and recommendations. Scholarly Inquiry for Nursing Practice: An International Journal, 2(2), 146-159.

- Hanchett, E. S., & Clarke, P. N. (1988). Nursing theory and public health science: Is synthesis possible? Public Health Nursing, 5(1), 2-6.
- Hardin, G. (1977). Living on a lifeboat. In G. Hardin & J. Baden (Eds.), Managing the commons (pp. 261-279). San Francisco, CA: W. H. Freeman and Co.
- Harding, S. (1986). The science question in feminism. Ithaca: Cornell University Press.
- Heide, W. S. (1985). Feminism for the health of it. Buffalo, NY: Margaretdaughters.
- Henderson, V. (1964). The nature of nursing. American Journal of Nursing, 64(8), 63-68.
- Henderson, V., & Nite, G. (1978). Principles and practice of nursing (6th ed.). New York: Macmillan.
- Hendrickson, R. (1987). The facts on file encyclopedia of word and phrase origin. New York: Facts on File Publications.
- Hoyman, H. S. (1975). Rethinking an ecologic-system model of man's health, disease, aging, death. The Journal of School Health, 45(9), 509-518.
- Hughes, C. J. (1985). Gaia: A natural scientist's ethic for the future. The Ecologist, 15(3), 92-95.
- Hughes, J. D. (1982). Gaia: Environmental problems in chthonic perspective. Environmental Review, 6(2), 92-104.

- Ip, P. (1983). Taoism and the foundations of environmental ethics. Environmental Ethics, 3(3), 335-343.
- Johnson, D. E. (1974). Development of theory: A requisite for nursing as a primary health profession. Nursing Research, 23(5), 372-377.
- Johnson, D. E. (1980). The behavioral system model for nursing. In J. P. Riehl & S. C. Roy (Eds.), Conceptual models for nursing practice (2nd ed.). New York: Appleton-Century Crofts.
- Kalish, P. A. & Kalish, B. J. (1978). The advance of American nursing. Boston: Little Brown.
- Keller, E. (1982). Feminist theory: A critique of ideology. Signs, 7(3), 589-601.
- Kheel, M. (1985). The liberation of nature: A circular affair. Environmental Ethics, 7(2), 135-149.
- Kim, H. S. (1987). Structuring the nursing knowledge system: A typology of four domains. Scholarly Inquiry for Nursing Practice, 1(2), 99-114.
- King, I. M. (1971). Toward a theory for nursing: General concepts of human behavior. New York: John Wiley and Sons.
- King, I. M. (1981). A theory for nursing: Systems, concepts, process. New York: John Wiley & Sons.

- King, Y. (1989). Healing the wounds: Feminism, ecology, and nature/culture dualism. In A. Jaggar & S. Bordo (Eds.), Gender/body/knowledge: Feminist reconstructions of being and knowing (pp. 115-141). London: Rutgers University Press.
- Kingry, M. J., Tiedje, L. B., & Friedman, L. L. (1990). Focus groups: A research technique for nursing. Nursing Research, 39(2), 124-125.
- Kleffel, D. (1991a). An ecofeminist analysis of nursing knowledge. Nursing Forum, 26(4), 5-18.
- Kleffel, D. (1991b). Rethinking the environment as a domain of nursing knowledge. Advances in Nursing Science, 14(1), 40-51.
- Krueger, R. A. (1988). Focus groups: A practical guide for applied research. Newbury Park, CA: Sage.
- Kuhn, T. S. (1970). The structure of scientific revolutions. Chicago: University of Chicago.
- Laffrey, S. C., Loveland-Cherry, C. J., & Winkler, S. J. (1986). Health behavior: Evolution of two paradigms. Public Health Nursing, 3(2), 92-100.
- Lee, D. C. (1980). On the Marxian view of the relationship between man and nature. Environmental Ethics, 2(1), 3-16.
- Levine, M. E. (1967). The four conservation principles of nursing. Nursing Forum, 6(1), 45-59.

- Levine, M. E. (1969). The pursuit of wholeness. American Journal of Nursing, 69(1), 93-98.
- Levine, M. E. (1973). Introduction to clinical nursing (2nd. ed.), Philadelphia: F. A. Davis.
- Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Newbury Park, CA: Sage.
- Lovelock, J. (1979). Gaia: A new look at life on earth. New York: Oxford University.
- Lovelock, J. (1986). Gaia: The world as living organism. New Scientist, 18, 25-28.
- Lovelock, J. (1988). The ages of Gaia: A biography of our living earth. New York: W. W. Norton.
- MacPherson, K. I. (1983). Feminist methods: A new paradigm for nursing research. Advances in Nursing Science, 6(1), 17-25.
- McCarthy, P. M., Craig, C., Bergstrom, L., Whitley, E. M., Stoner, M. H., & Magilvy, J. K. (1991). Caring conceptualized for community nursing practice: Beyond caring for individuals. In P. L. Chinn (Ed.), Anthology on caring (pp. 85-94). New York, NY: National League for Nursing.
- McFarland, J. (1985). Use of an ecologic model to identify children at risk for infection and to quantify the expected impact of the risk factors. Public Health Nursing, 2(1), 1-22.

- Mc Graw-Hill encyclopedia of science and technology (6th ed.). (1987). (Vol. 6). New York: Mc Graw-Hill.
- McKay, R. & Segall, M., (1983). Methods and models for the aggregate. Nursing Outlook, 31(6), 328-334.
- McKinlay, J. B. (1986). A case for refocussing upstream: The political economy of illness. In P. Conrad & R. Kern (Eds.), The sociology of health and illness: Critical perspectives (pp. 484-498). New York: St. Martin's Press.
- McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. Health Education Quarterly, 15(4), 351-377.
- Meleis, A. I. (1987). ReVisions in knowledge development: A passion for substance. Scholarly Inquiry for Nursing Practice: An International Journal, 1, 5-19.
- Meleis, A. I. (1991). Theoretical nursing: Development and progress (2nd. Ed.). Philadelphia: J. B. Lippincott.
- Melosh, B. (1982). The physician's hand. Philadelphia: Temple University.
- Merchant, C. (1990). Environmental ethics and political conflict: A view from California. Environmental Ethics, 12(1), 45-68.
- Milio, N. (1976). A framework for prevention: Changing health damaging to health generating life patterns. American Journal of Public Health, 66(4), 435-439.

- Milio, N. (1988). Making health public policy; developing the science by learning the art: An ecological framework for policy studies. Health Promotion, 2(3), 263-274.
- Miller, A. S. (1991). Gaia connections: An introduction to ecology, ecoethics, and economics. Savage, MD: Rowman & Littlefield.
- Moccia, P. (1993). A vision for nursing education. New York: National League for Nursing.
- Morgan, D. L. (1988). Focus groups as qualitative research (Sage University Paper Series on Qualitative Research Methods, Vol. 16). Newbury Park, CA: Sage.
- Morse, J. M. (1992). The power of induction [editorial]. Qualitative Health Research, 2(1), 3-6.
- Morse, J. M., Solberg, S. M., Neander, W. L., Bottorff, J. L., & Johnson, J. I. (1990). Concepts of caring and caring as a concept. Advances in Nursing Science, 13(1), 1-14.
- Muecke, M. A. (1984). Community health diagnosis in nursing. Public Health Nursing, 1(1), 23-35.
- Murphy, P. D. (1988). Sex-typing the planet: Gaia imagery and the problem of subverting patriarchy. Environmental Ethics, 10(2), 155-168.
- Naess, A. (1973). The shallow and the deep, long-range ecology movement: A summary. Inquiry, 16, 95-100.

- Neihardt, J. G. (1931). Black Elk speaks. Lincoln, NE: University of Nebraska Press.
- Nelson, L. (1990). The place of women in polluted places. In I. Diamond & G. F. Orenstein (Eds.), Reweaving the world: The emergence of ecofeminism (pp. 173-188). San Francisco, CA: Sierra Club.
- Nelson, M. A. (1994). Economic impoverishment as a health risk: Methodologic and conceptual issues. Advances in Nursing Science, 16(3), 1-12.
- Nelson, M. L. (1988). Advocacy in nursing. Nursing Outlook, 36(3), 136-141.
- Neuman, B. (1989). The Neuman Systems Model (2nd. ed.). San Mateo, CA: Appleton & Lange.
- Nightingale, F. (1969). Notes on nursing: What it is and what it is not. New York: Dover (Original work published in 1860).
- O'Neill, S. (1992). The drive for professionalism in nursing: A reflection of classism and racism. In J. L. Thompson, D. G. Allan, & L. Rodrigues-Fisher (Eds.), Critique, resistance, and action: Working papers in the politics of nursing (pp. 137-148). New York: National League for Nursing.
- Orem, D. E. (1980). Nursing: Concepts of practice (2nd. ed.). New York: McGraw-Hill.
- Orem, D. E. (1991). Nursing: Concepts of practice (4th ed.). Chicago: Mosby.

- Orlando, I. J. (1961). The dynamic nurse-patient relationship: Function, process, and principles. New York: G. P. Putnam's Sons.
- Palmer, I. S. (1982). Through a glass darkly--From Nightingale to now. Washington, D. C., American Association of Colleges of Nursing.
- Palmer, I. S. (1983). From whence we came. In N. L. Chaska (Ed.), The nursing profession: A time to speak (pp. 3-28). New York: McGraw-Hill.
- Palmer, I. S. (1984). Florence Nightingale: Reformer, reactionary, researcher. In Pages from nursing history: A collection of original articles from the pages of Nursing Outlook, the American Journal of Nursing and Nursing Research (pp. 13-18). New York: American Journal of Nursing.
- Palmer, I. S. (1986). A historical perspective on client/environment interaction. Proceedings of the 1986 National Forum on Doctoral Education in Nursing (pp. 5-24). San Francisco: School of Nursing, University of California.
- Parker, B. & McFarland, J. (1991). Feminist theory and nursing: An empowerment model for research. Advances in Nursing Science, 13(3), 59-67.
- Parse, R. (1987). Nursing science: Major paradigms, theories, and critiques. Philadelphia: W.B. Saunders.

- Paterson, J. G. & Zderad, L. T. (1988). Humanistic nursing. New York: National League for Nursing.
- Peerenboom, R. P. (1992). Beyond naturalism: A reconstruction of Daoist environmental ethics. Environmental Ethics, 13(1), 3-22.
- Peplau, H. E. (1952). Interpersonal relations in nursing. New York: Putnam.
- Polk-Walker, G. C. (1989). Aerospace nursing: The new frontier. Journal of Professional Nursing, 5(4), 224-230.
- The Random House dictionary of the English language. (1987). Second edition, unabridged. New York: Random House.
- Reinharz, S. (1992). Feminist methods in social research. New York: Oxford University.
- Roberts, S. J. (1983). Oppressed group behavior: Implications for nursing. Advances in Nursing Science, 5(4), 21-30.
- Rogers, M. E. (1970). An introduction to the theoretical basis of nursing. Philadelphia: F. A. Davis.
- Rogers, M. E. (1980). Nursing: A science of unitary man. In J. Riehl and C. Roy (Eds.), Conceptual models for nursing practice (2nd. ed.) (pp. 329-337). New York: Appleton-Century-Crofts.
- Rogers, M. E. (1992). Nursing science and the space age. Nursing Science Quarterly, 5(1), 27-34.

- Rose, H. (1986). Beyond masculinist realities: A feminist epistemology for the sciences. In Blier, R. (Ed.), Feminist approaches to science (Chapter 4). New York: Pergamon Press.
- Roy, C. (1987). Roy's adaptation model. In R. Parse (Ed), Nursing science: Major paradigms, theories, and critiques (Chapter 3). Philadelphia: W.B. Saunders.
- Roy, C. (1988). An explication of the philosophical assumptions of the Roy Adaptation Model. Nursing Science Quarterly, 1(1), 26-34.
- Sagan, D., & Margulis, L. (1983). The Gaian perspective of ecology. The Ecologist, 13(5), 160-167.
- Salleh, A. K. (1984). Deeper than deep ecology: The eco-feminist connection. Environmental Ethics, 6(4), 339-345.
- Salleh, A. K. (1992). The ecofeminism/deep ecology debate: A reply to patriarchal reason. Environmental Ethics, 14(3), 195-216.
- Sarter, B. (1988). Philosophical sources of nursing theory. Nursing Science Quarterly, 1(2), 52-59.
- Schultz, P. R. (1987). When client means more than one: Extending the foundational concept of person. Advances in Nursing Science, 10(1), 71-86.
- Schuster, E. A. (1990). Earth caring. Advances in Nursing Science, 13(1), 25-30.

- Segall, M. & McKay, R. (1984). Evolution of an aggregate-based community health curriculum. Nursing Outlook, 32(6), 308-312.
- Seidel, J. V., Kjolseth, R. & Seymour, E. (1988). The Ethnograph: A user's guide (3.0). Littleton, CO: Qualis Research Associates.
- Skillings, L. N. (1992). Perceptions and feelings of nurses about horizontal violence as an expression of oppressed group behavior. In J. L. Thompson, D. G. Allen, & L. Rodrigues-Fisher (Eds.), Critique, resistance, and action: Working papers in the politics of nursing (pp. 167-186). New York, NY: National League for Nursing.
- Smith, M. N. & Whitney, G. M. (1991). Caring for the environment: The ecology of health. In P. L. Chinn (Ed.), Anthology on caring (pp. 59-70). New York, NY: National League for Nursing.
- Sohier, R. (1992). Feminism and nursing knowledge: The power of the weak. Nursing Outlook, 40(2), 62-66, 93.
- Stevens, P. E. (1989). A critical social reconceptualization of environment in nursing: Implications for methodology. Advances in Nursing Science, 11(4), 56-68.
- Stevens, P. E. (1993). Marginalized women's access to health care: A feminist narrative analysis. Advances in Nursing Science, 16(2), 39-56.

- Storfjell, J. L. & Cruise, P. A. (1984). A model of community-focused nursing. Public Health Nursing, 1(2), 85-96.
- Strauss, A. & Corbin, J. (1990). Basics of qualitative research. Newbury Park, CA: Sage.
- Symonds, J. M. (1990). Revolutionizing the student-teacher relationship. In Curriculum revolution: Redefining the student-teacher relationship (pp. 47-56). New York: National League for Nursing.
- Talbot, M. (1991). The holographic universe. New York, NY: HarperCollins.
- Tanner, C. A. (1990a). Introduction. In Curriculum revolution: Redefining the student-teacher relationship (pp. 1-3). New York: National League for Nursing.
- Tanner, C. A. (1990b). Reflections on the curriculum revolution. Journal of Nursing Education, 29(7), 295- 299.
- Terris, M. (1987, Autumn). Epidemiology and the public health movement. Journal of Public Health Policy, 315-329.
- Thompson, J. L. (1991). Exploring gender and culture with Khmer refugee women: Reflections on participatory feminist research. Advances in Nursing Science, 13(3), 30-48.

- Tinbergen, N. (1951). The study of instinct. London: Oxford University Press.
- U. S. Department of Health and Human Services. (1991). Healthy people 2000: National health promotion and disease prevention objectives. Washington, DC: Government Printing Office.
- Warren, K. J. (1987). Feminism and ecology: Making connections. Environmental Ethics, 9(1), 3-20.
- Warren, K. J. (1990). The power and the promise of ecological feminism. Environmental Ethics, 12(2), 125-146.
- Warren, K. J. & Cheney, J. (1991). Ecological feminism and ecosystem ecology. Hypatia, 6(1), 179-197.
- Watson, J. (1981). Nursing's scientific quest. Nursing Outlook, 29(7), 413-416.
- Watson, J. (1985). Reflections on different methodologies for the future of nursing. In Leininger, M. (Ed.), Qualitative research methods in nursing (pp. 343-349). San Diego: Harcourt Brace Jovanovich.
- Watson, J. (1989). Transformative thinking and a caring curriculum. In E. M. Bevis & J. Watson (Eds.), Toward a caring curriculum: A new pedagogy for nursing (pp. 51-60). New York: National League for Nursing.
- Watson, J. (1990). The moral failure of the patriarchy. Nursing Outlook, 38(2), 62-66.

- Weidenbach, E. (1970). Nurses' wisdom in nursing theory. The American Journal of Nursing, 79(5), 1057-1062.
- Wheeler, C. E. & Chinn, P. L. Peace and power: A handbook of feminist process (3rd. ed.). New York: National League for Nursing.
- White, C. M. (1984). A critique of the ANA social policy statement. Nursing Outlook, 32(6), 328-331.
- White, J. (1991). Feminism, eating, and mental health. Advances in Nursing Science, 13(3), 68-80.
- Wigley, R. & Cook, J. R. (1975). Community health: Concepts & issues. New York: D. Van Nostrand.
- William, D. M. (1991). Caring for the environment: The ecology of health. In P. L. Chinn (Ed.), Anthology on caring (pp. 59-70). New York, NY: National League for Nursing.
- Williams, C. A. (1992). Community-based population-focused practice: The foundation of specialization in public health nursing. In M. Stanhope & J. Lancaster (Eds.), Community health Nursing: Process and practice for promoting health (3rd. ed.) (pp. 244-252). Boston: Mosby Year Book.
- Winstead-Fry, P. (1986). Client/environment interaction. An epistemological approach. Proceedings of the 1986 National Forum on Doctoral Education in Nursing (pp. 25-38). San Francisco: School of Nursing, University of California, San Francisco.

- Women's Environment & Development Organization, (1992). Does the breast cancer epidemic have environmental links? News & Views, 6(1), 1, 9.
- Woolley, A. S. & Costello, S. E. (1988). Innovations in clinical teaching. In Curriculum revolution: Mandate for change (pp. 53-64). New York: National League for Nursing.
- Yura, H. & Torres, G. (1975). Today's conceptual frameworks within baccalaureate nursing programs. In Faculty-curriculum development, Part 111: Conceptual framework--Its meaning and function (pp. 17-25). New York: National League for Nursing.
- Zaidi, I. H. (1981). On the ethics of man's interaction with the environment: An Islamic approach. Environmental Ethics, 2(1), 35-47.

Appendix A

Table 1.

Nursing Research Conducted in the Domain of Environment
1961-February 1994

Environment	Client/Patient	Nurse
Institution		
Hospital	18	13
Long Term	7	
Mental	5	4
Academic		2
Workplace	2	
Jail	1	
Home	12	
Laboratory	3	
Local Community	6	2
Social/Economic/Political	1	
Total	55	21

Appendix B: Participant Recruitment Letter

Dorothy Kleffel
1671 Rancho Vista Way
Fallbrook, CA 92028
(619) 728-5768

June 1, 1992

Name of participant
Address

Dear Dr. (name of participant):

In these days of grave environmental concerns, I believe that nursing must include regional, national, and global environmental issues as part of the profession's responsibilities. I am a doctoral candidate at the Philip Y. Hahn School of nursing at the University of San Diego and plan to do a qualitative research study on the environmental domain of nursing knowledge for my dissertation.

I have identified you as a nursing scholar who has addressed broad environmental dimensions in your work and am inviting you to participate in my research. I would like to know if you would be available for either; a) a personal interview, or b) participation in a focus group with other nurse scholars to discuss nursing's environmental domain; if they could be arranged at a time convenient for you? If you

would be willing to participate in a focus group, I will pay for your transportation to and from the focus group site, one night's lodging, and incidental expenses up to \$50.00. Data gathering will begin in the fall of 1992.

Enclosed are two articles on nursing's environmental domain that I have written that describe my perspectives. Thank you for considering participating in my research. I am looking forward to exchanging environmental viewpoints with you. Please check and sign the enclosed response sheet and return it to me in the self addressed and stamped envelope.

Very truly yours,

Dorothy Kleffel, RN, MPH, DNSc (C)
Philip Y. Hahn School of Nursing
University of San Diego

RESPONSE SHEET

NURSING'S ENVIRONMENTAL DOMAIN STUDY

If it can be arranged at a convenient time, I will be willing/or not willing to participate in the dissertation research study to be conducted by Dorothy Kleffel in the following manner.

- A. _____ A personal interview
- B. _____ Attending a focus group
- C. _____ Either a personal interview or a focus group
- D. _____ I am unable to participate

Comments

Signature

Appendix C

Interview Guide

I am a doctoral candidate at the University of San Diego and am doing a qualitative research study on the environmental domain of nursing knowledge for my dissertation. I have identified you as a nursing scholar who has addressed broad environmental dimensions in your work (mention the specific article or idea) and am pleased that you agreed to participate in the study.

My research question is: What is the environmental domain of nursing knowledge that the profession wants to create? I am using Heidi's (1985) concept of future search. Future search, as opposed to research requires that we envision the world as we want it to be. Once we know how we want it to be, we can discover the knowledge base that is required to get there. Applied to my research, I want to describe an envisioned nursing environmental domain so that the profession can do the theory building and research needed to achieve an ideal environmental domain.

Before we begin, I would like you to review and sign the Consent Form. Do you have any questions?

Questions:

1. What led you to address the topic of environment?
2. It is generally acknowledged by the profession that there are four domains of nursing knowledge; person, health, nursing, and environment (Fawcett, 1978).

What is your concept of an ideally conceived environmental domain of nursing knowledge?

3. How do you believe that the concept of environment is different for nurses than for other professions?

4. What are the boundaries of nursing's environmental domain?

Probe. The dictionary defines the environment as an aggregate of all external things, conditions, and influences surrounding and affecting the individual. Therefore the boundaries would seem to be the skin. Some Eastern ideas are that there is no boundary between every thing and event in the universe. How do you react to these ideas?

5. The literature often mentions nursing's holistic paradigm. How can nursing's holistic paradigm be applied to studying the environment? (vs segmenting the environment into parts for study)

6. Winstead-Fry (1985) stated that obviously we interact with the environment through our five senses, but raised the question of other processes such as intuition. What are your ideas about how humans interact with the environment?

7. Is there one environment or multi-environments?

Probe. Winstead-Fry (1985) asked if there is one universal environment with which we all interact, whether there are several environments with which we selectively interact, or perhaps the person's perception of the

environment is more important than the nature of the environment.

Neuman (1989) identified three environments; internal, external, and created. The created environment includes characteristics such as values and self esteem, and subsumes the internal and external environments.

How do you react to these ideas?

8. What kind of nursing interventions can we as nurses make directed toward broad environmental dimensions?

9. How can the environment be the nursing client (in addition to the traditional nursing client of individual, family, and community)?

10. You wrote (paraphrase the participant's written perspectives of the environment). Have you developed these ideas any further? Or, can you describe these ideas in more detail?

11. That completes the questions that I have. What haven't we discussed about nursing's environmental domain that you consider important?