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A Multiparadigm Approach to Nursing

Engelbreton, Joan DrPH, RN

▼ Author Information

The University of Texas-Houston Health Science Center; School of Nursing; Houston, Texas.

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▼ Abstract

Nursing theory development has made good progress in differentiating the domain of nursing from medicine; many of these theories are categorized as holistic theories. Nursing classification systems are also being developed to organize extant nursing practice. The dissonance between the two has been one of the most difficult contemporary issues for the leadership of nursing. A framework is proposed that would account for these disparate approaches. This proposed framework for the domain of healing is in keeping with the metaparadigm of health and uses a multiple paradigm approach. Nursing interventions are discussed in relation to the framework. It invites a dialogue in keeping with the scholarship of holism. Practice and scholarship implications are discussed.











Key words: classification systems, culture, holism, paradigm, theory

Nursing Theory has, since the 1960s, sought to define the profession of nursing and to differentiate its scope of practice from that of biomedicine. [1] This search has led to some discrepancies between theory development that differentiates nursing action from biomedical nursing practice, the latter of which uses many nursing actions derived from biomedicine. Differentiating autonomous nursing practice was a necessary step, because historically many nursing functions were derived from biomedicine, since nurses have practiced in biomedically dominated settings.

One primary differentiating feature was holism, which was contrasted with biomedical reductionism. The movement to declare nursing holistic is now well accepted; however, a holistic framework must be inclusive of, not only differentiated from, biomedicine. In alignment with holism, the appropriate construct for the nursing profession is healing. Health is a derivative of healing, or making whole, and part of the metaparadigm of nursing.

Another element of professional evolution is the development of diagnostic,

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intervention, and outcomes classifications systems. These are often grounded in nursing practice and thus reflect both nursing activities as well as predominant sociocultural ideologies. There is often a disjuncture between the differentiating and defining theories and the more pragmatic classifications systems. [2] In an effort to reconcile grand conceptual models and practice, this article presents a conceptual framework for discussion as a step toward the consolidation of a holistic approach to nursing. The intent is to support both unique autonomous actions and to incorporate medically derived actions. Using the construct of healing, a multiparadigm model is presented to incorporate both the medical model and other cultural healing models on which nurses may ground their actions. This integration is at the level of paradigm, which allows the incorporation of and expansion beyond the biomedical model and avoids the pitfalls of the derivative-differentiation polarity.

Nursing has over the past 30 years made great strides in the development of nursing theories and conceptual models. These activities have been necessary to define the professional domain to its members and to society at large. Theory guides the practice and the activities that are unique to the profession, informs research efforts, and provides direction for future development. [3]

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CONTEMPORARY CONTROVERSIES

Despite the progress made, the use of nursing theories in practice has been a matter of controversy. One area of controversy is the dichotomy between medicine and nursing, with many theories focusing on unique nursing functions and in some cases redefining actions associated with medical models. This position has often still held the medical model as the orthodox standard against which nursing defined itself by negation or differentiation, thereby maintaining dependence on the medical model.

Closely related to the nursing-medicine dichotomy is the rupture between academia and practice. Academia and much of theory development focused on the autonomous nature of nursing, differentiating it from medicine. Extant nursing practice often eschewed the nursing theories learned in school, and practicing nurses functioned in a more pragmatic manner reflective of the medical model. [4] Many times the praxis of nursing is covertly, if not overtly, aligned with the medical model. This alliance with the medical model is understandable considering the hegemony of the medical bioscientific model in U.S. culture. Barnum [4] noted that normative theory evolves from practice rather than academic theory development and that inconsistencies develop when practice (theory) is not intellectually analyzed and scrutinized according to logical coherence.

A third, related problem area is the disjuncture between nursing theories and the diagnosis, intervention, and outcome classification systems. The two strongest competitors in the theory business are holistic theories and nursing process, [1,4] which often represent opposing philosophies regarding content, methodology, and interpretation. Holistic theories are global, espouse a transcendental view of humans, and are committed to not viewing subject matter as an accumulation of parts. [4]

Nursing process approaches are much more concrete and practice based and have focused on nursing action and classification systems. [5] The International Council of Nurses, [6] the Omaha Project, [7] the Iowa Project, [8] and separate projects by Grobe [9] and Saba [10] have recently developed nursing classification systems.

Recent debates in nursing have also reflected controversies over the usefulness of a unified theory vs multiple theories. Reed [11] proposed an approach that links science, philosophy, and practice in the development of nursing knowledge. She advocated a metanarrative that involves a dialogue of

practice and philosophy. This metanarrative provides an excellent format for the development of nursing theory that is holistic in nature and can integrate multiple paradigms from the patient's perspective and from the nurse. It is in this spirit of inviting a dialogue and providing a format for a dialectic discussion between paradigms that the author presents the multiparadigm model.

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HOLISM AND NURSING

Grand theory, or the concept level of theory development, has evolved into a metaparadigm with four propositional statements related to the concepts person-health, person-environment, health-nursing, and person-environment-health. [12] The global level defines the frameworks within which the more restricted structures develop.

Consistent with the concept heal-health, the related ideologies for nursing theory development would come from healing, rather than be restricted to medicine. Healing and health stem from the root word hale, or to make whole. [13] This etymology grounds the concept heal-health in holism. Barnum [4] identified holistic theories as the fastest growing trend in nursing. Holistic concepts in nursing have been evident since the time of Florence Nightingale and evolved in nursing theories through the influence of Teilhard de Chardin, Jan Smuts, and Ludwig von Bertalanffy. [14] Anthropology, another discipline based on holism, provides another source of information on healing that can inform nurses in the development of holistic theory. Traditionally, in many cultures, healers, shamans, and medicine people reflected the broader concept of healing rather than the science-based concept of cure.

Holistic health has recently become very popular among both lay and professional groups. Characteristics of holistic health have been described in many studies. [15-19] Two common mistakes occur in the analysis of holism from a modernist perspective based in a scientific or reductionistic paradigm. Alster's [15] analysis of holistic health is an example of such an attempt; it reaches the syllogistic conclusion that holistic health cannot be studied scientifically because it is not scientific.

The opposite pitfall is to romanticize traditional or primitive healing systems and unfavorably compare science and biomedicine. This antiscience position is often seen in lay literature that attributes all social ills to scientific-rational thinking while extolling a holistic framework as the alternative. A consistent holistic framework incorporates science but does not hold that paradigm as sufficient for explaining the human experience or for bringing about health or healing. The model proposed in this article recognizes the holistic nature of nursing and expands the domain from disease treatment to the broader concept of health by incorporating several paradigms and their adjunctive ideological perspectives on humans, health, and therapeutic actions.

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HISTORICAL CONTEXT OF WESTERN MEDICINE

Healing systems reflect and influence the cultural values of the parent culture. Contemporary biomedicine has been informed by and influential in the development of modernism. Modernity had its philosophical origins in the 17th century with the emphasis on rationality by the protagonists Galileo and Descartes. [20] Kuhn [21] described the shift of vision that enabled people to see and think about phenomena in a different manner and that he labeled a "paradigm shift." Modernity is characterized by the development of science and technology, the valorization of reason and humanity's dominion over nature. The scientific paradigm of modernity has dominated medicine and health care.

The establishment of the scientific model as the foundation for biomedicine paralleled the development of modernity. The scientific paradigm is characterized by philosophical dualism between the material and nonmaterial, and the corresponding designation of matter as the subject of science and the nonmaterial or metaphysical as the domain of religion. Descartes is often credited with conceptualizing the mind-body dualism and the corresponding value of the mind-soul as the superior demarcation of the human.

Throughout the following centuries, especially in England, increasing cultural value was placed on the scientific, material, rational, and technical. [22,23] Metaphysical and nonmaterial issues associated with religion were progressively devalued, especially among intellectuals. [24] Medicine, which historically had been based in a metaphysical model and supported by religion, became the domain of science and was severed from its metaphysical and religious roots. This split allowed medicine to make unprecedented technological advances through the application of scientific reason. But a contemporary surge of public interest in alternative healing modalities suggests that the biomedical scientific approach by itself is insufficient for healing.

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DEVELOPMENT OF THE MULTIPARADIGM MODEL

The multiparadigm model was developed from the author's ethnographic work with healers and nurses. Field work, including participant observation, long interviews, free listing, and pile sorts, was used in a study exploring and comparing the conceptual frameworks of health and healing between nurses and healers. [25] A matrix of healing modalities that incorporated biomedicine and examples of alternative models emerging in the United States in the late 1980s and early 1990s was developed to focus the study on healers using healing touch [26] and used to orient nurse practitioners to alternative healing modalities that their clients might be using. [27]

This matrix was then developed into the Heterodox Explanatory Paradigms Model for health practice that incorporated multiple healing modalities. [28] The philosophical coherence of the model and the related positioning of modalities was presented as a framework for developing integrated health care models. Because nurses and healers have similar conceptual frameworks of healing, [25] this model could be adapted for nursing as a possible framework toward a more holistic model.

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Philosophical design

The multiparadigm model (Figure 1) developed from the author's previous work [25-28] represents a multiparadigm approach to healing. Philosophical dualism between the material and nonmaterial is represented on both axes. Four paradigms of healing are incorporated and philosophically arranged from the most material to the most nonmaterial along the horizontal axis, which represents a philosophical continuum from logical positivism to metaphysics. Consistent with the positivist-metaphysical continuum, the mechanical paradigm is on the extreme left, reflecting the logical positivism of its philosophical scientific foundation. The paradigms are progressively more nonmaterial, ending in the most metaphysical paradigm, supranormal, at the extreme right. The vertical axis represents the Cartesian body-mind dualism in healing activities. Activities that are most material or physical are at the top. Moving down, activities become progressively less material and more psychological or spiritual.

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Horizontal axis



Figure 1

The four paradigms are mechanical, purification, balance, and supranormal. The mechanical paradigm is best represented by examples from biomedicine, which is primarily a mechanistic, materialistic paradigm exemplified by the focus on discovering explanatory mechanisms to understand a healing activity. The positivist philosophy bases knowing on objective, material data perceived by the senses. [29] It is characterized by determinism, mechanism, and reductionism. Disease is assumed to be reducible to disordered body functions and a disease-specific etiology. [30] Treatment and intervention are disease specific.

The purification paradigm has examples cross-culturally and throughout Western history. This paradigm is characterized by healing actions that cleanse or purify. The name of the prestigious English medical journal Lancet is a remnant of the bloodletting and purges that dominated Western medicine before technical advances in surgery and antibiotics in the 20th century. Health and healing activities related to cleanliness or purification either physically or symbolically have been documented in many ritual practices. [31] The hygienic health reform movement of the late 19th century [32,33] incorporated many practices that were understood as cleansing and keeping the body pure.

The balance paradigm is best represented by Eastern or humeral systems. In Eastern systems health-healing is viewed as the proper balance of yin and yang and unimpeded flow of Chi (or Ki or Qi). [34] Humeral medicine, or the balance of vital forces or humors, is evident in Hippocratic, Galenic, and Ayurvedic medicine. [35] Nineteenth-century vitalism also incorporated this approach. Health is attained or maintained by creating a balance in daily living through types of foods, activities, temperature, and so forth. Personality types, environment, and circumstances are considered in determining the corrective balance. One example is the hot and cold classification in Mexican folk medicine. The balance paradigm is on the right half of the model and therefore cannot be fully understood through a materialist mechanistic paradigm.

The supranormal paradigm incorporates all magicoreligious and psychic phenomena used to promote health or create healing. Spiritual, symbolic, and other nonmaterial understandings of healing are in this column. The supranormal paradigm is philosophically the most metaphysical, going beyond physics, sense experience, or any discipline and involving ultimates. [36] This paradigm incorporates psychic, spiritual, and other types of healing such as prayer, distant healing, and other spontaneous healing that cannot be explained by mechanistic models or one of the other paradigms.

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Vertical axis

The vertical axis describes types of healing activities that progress along the continuum from body to mind-soul, from material to nonmaterial. The first row contains physical manipulations, and examples are given for each paradigm. Physical manipulation may be performed either by the patient or on the patient by a healer.

In row 2 applied and ingested substances are listed according to each paradigm. Such substances include all foods, herbs, and pharmaceuticals that are ingested, inhaled, or topically applied.

Using energy, the third activity, is a concept that is poorly understood in biomedicine but important in other paradigms. Many healing activities are understood and conducted as an active manipulation of energy. The concept of energy, or the transfer from matter to energy to matter, has been proposed by some scientists (eg, Bohm, Capra [37]) as the basis for quantum physics and as a possible link in understanding the material and nonmaterial worlds. This could be a promising area in linking the material, physical body with nonmaterial thought, spirit, and so on. The concept of energy has been proposed by some nurses as the

basis for understanding the benefits of touch therapies. [38-40]

Psychological activities deal with functions of cognition and of the mind. Mind to body medicine has been a rapidly growing area of research. With the discovery of neurotransmitters and hormonal-neural pathways, mechanisms have been discovered by which thoughts and feelings can manifest in physiological changes. [41] Theory has been developed and researched regarding the association of personality characteristics with illness, in particular hostility and heart disease. [42] Psychoneuroimmunology is another promising field where theory is developing. Associations have been demonstrated between various personality characteristics and mortality and morbidity. [43,44]

Spiritual activities are at the polar opposite of the continuum from physical manipulation. Spiritual actions are distinct from cognitive activities. Spirituality, being the most distant from the physical or material, is the least understood from a modernist perspective. Some studies have found that attendance at religious activities is related to improved health or healing. [45] Attendance at religious activities represents a mechanistic conceptualization of spiritual activity, whereas a primal spiritual experience as described by Cox [46] would be a more metaphysical approach.

The model has, at present, four paradigms, but others could be added along the continuum. Restriction to a two-dimensional format is often interpreted as containing mutually exclusive cells. A more appropriate geographic conceptualization would be as general areas on a double-axis continuum, with no specific boundary between areas. Modalities in the model are examples only, and many other modalities could fit in each location. The modalities describe healing activities only. An individual practitioner-healer could, and often does, use many modalities.

The positioning of modalities according to philosophical continuums also reflects the degree of passivity or activity of the healer. Starting from the upper left corner, where the modalities are most material, the healer is most active and the recipient most passive. Moving diagonally down and across, the person who is healing is progressively more active and the role of the healer increasingly that of facilitator, consistent with healing philosophy, which posits that real healing is done by the "healee."

One area that is a vital part of the nursing metaparadigm and other healing systems is the environment, especially social relationships. Although not specifically addressed in the model, an additional line at the bottom could be added to address social activities.

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APPLICATION TO NURSING

The multiparadigm model is holistic and avoids the medicine-nursing and practice-academia dichotomies by placing the Western biomedical model in context with other paradigms of healing. It speaks to the domain of healing, which is the stated domain of nursing. This model can provide a frame-work for nursing diagnoses and interventions that easily integrates biomedical model functions with complementary functions that either are autonomous nursing activities or might constitute appropriate referrals. The model also incorporates paradigms that can be useful in understanding cross-cultural healing practices and systems.

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IMPLICATIONS FOR PRACTICE

Operating from a multiparadigm model allows nurses to adapt whatever paradigm or modality fits the situation. This flexibility is helpful in working with patients who practice health- and healing-related activities from other paradigms. A multiparadigm approach that incorporates models of health-healing can help providers better understand beliefs and practices of patients that may be poorly comprehended in the biomedical model.

Most health practices originate in the popular sector, [47] which includes family and social networks. This sector has beliefs about health maintenance and hierarchies of resort that direct types of health-healing activities, healer consultants, and adherence to treatments. The orientation of the popular sector often incorporates other paradigms than the scientific-mechanistic approach of biomedicine. By understanding the explanatory paradigm of health practices, the practitioner is better able to communicate and collaborate with the client and family in the management of health-healing.

Many interventions listed in the various nursing classification systems may be positioned in this model. Examples from one of these systems, the Nursing Interventions Classification (NIC), [8] have been identified in Figure 2, along with other modalities that could be referral sources for the client. Examples are easily placed in the mechanistic and purification paradigms but more difficult to place in the balance and supranormal paradigms. Thus, the model can display areas where nursing has developed actions and where referrals are more appropriate. It is important to note that a holistic paradigm is impossible to implement in its entirety by any one person or discipline; therefore, nurses should be able to understand how other providers fit into an overall plan of care.



Figure 2

By understanding these modalities through the appropriate paradigm, practitioners may select whatever modality is appropriate for the client, either by interventions or referral to other providers. For example, existing NIC actions in the mechanical paradigm for physical manipulation could incorporate positioning, exercise therapy including range of motion, and ambulation. Applied and ingested substances include medication administration of all types. Although energy is poorly understood in the mechanical model, it is present on the NIC as laser precautions. Energy, if better understood, could have potential for much broader use.

Psychological interventions in the mechanical (medical) model include cognitive restructuring and reality therapies. Spiritual interventions may include assisting a patient with religious practices such as attending chapel or praying. This is not specifically listed in NIC but is covered under activity therapy.

Examples of nursing actions in the purification paradigm using physical manipulation include bathing and other hygiene activities. Wound and bladder irrigations are good examples of applied and ingested substances. Many medications have cleaning or purification action, such as emetics, expectorants, and purgatives. Psychological and emotional catharsis are examples of psychological purification. These are not specifically listed, although could be covered under the NIC active listening.

Spiritual purification includes a number of rituals that serve to purify and cleanse the individual, such as confession, seeking of forgiveness, ritual bathing, and use of incense. These would need to be developed or referred because there is no NIC entry related to this.

Nursing interventions are being expanded into the balance and supranormal paradigms through the work of nurses who have expanded their individual practice and those who are using many of the more recent nursing theories, such as Rogers, [48] Watson, [49] Parse, [50] or Newman, [51] to direct their practice. Exercise promotion is listed in NIC and could be expanded and developed with a better

understanding of the balance paradigm. Nutritional counseling is based on providing a balance of nutrients and could also be expanded to incorporate use of some herbs for the promotion of health. Approaching these from the perspective of balance rather than mechanical cure allows for an expansion into health and attention to individual life systems. Acupuncture or acupressure are not on the NIC but could be a source of referral. While currently not part of the balance paradigm, counseling, simple relaxation therapy, or self-modification assistance have the potential for development into that paradigm. Meditation also has potential for development.

Nursing interventions in the supranormal paradigm cluster in the nonmaterial areas. Intuitive body work, if not done by a nurse, could constitute a referral. Likewise, activities using homeopathic remedies or flower essences are included as they are understood to work through the spiritual level.

Therapeutic touch is well developed in nursing and is understood as a supranormal use of energy. Guided imagery is a supranormal psychological technique that is listed in the NIC. Spiritual support, including prayer, could be further developed to fully express this paradigm.

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IMPLICATIONS FOR RESEARCH AND SCHOLARSHIP

By constructing a paradigm map with health-healing activities, nurses can determine appropriate paradigms to guide their understanding and research of particular modalities. Locating it on the model can serve as a guide for better understanding a particular modality; it also provides a direction for further scholarship and research. An exploration of both axes can enhance understanding. For example, nursing actions in the mechanical paradigm are often best understood by a better comprehension of the medical-scientific model, and research using the positivist philosophy is often appropriate. Many of the NIC classifications can be understood from this paradigm.

Working with a modality such as guided imagery could be enhanced by exploring both the supranormal paradigm and the psychological literature. Healing touch, a modality with a rich history in nursing, is located at the nexus of energy and the supranormal, the two axes least understood by biomedical science. Nurses who have conducted research using this modality or the existential psychological theories can attest to the frustration in conducting research without documented material and measurable mechanisms of action that are compatible with the mechanical paradigm. Research in these areas can be enhanced by learning more about the approaches of anthropology, theology, some psychology, and other humanity disciplines consistent with the supranormal paradigm. Investigation of energy through quantum physics (energy) and Eastern healing are also proximal areas that can illuminate the understanding of touch therapies.

The model can serve as an agenda for research and scholarship. In some modalities, links have been or can be developed that enable more mechanistic studies. In others, their position invites more qualitative or naturalistic methodologies of inquiry. Nursing theories may develop links that connect modalities for practice. For example, some of the developmental theories may have links across paradigms on the psychological axis. Although methods may be successfully combined, caution must be taken in attempting to link paradigms. Many paradigms are based on contradictory beliefs that are impossible to adhere to simultaneously. [52]

The multiparadigm model provides a holistic approach to bridging the gulf between holistic theories and biomedical nursing praxis. The dialectic method is appropriate scholarship for holistic frameworks. [4,53] In this approach, the whole is seen as governing relationships and providing coherence to the parts. The dialectic process would describe a nursing issue from one position-for example,

the mechanical paradigm-and then counter that description with an oppositional position, the supranormal. After debate and dialogue, a third position emerges. This position can, in similar fashion, be refined by the same process. Placing the polar opposites in one model invites a dialectic methodology, appropriate for holistic nursing scholarship. The challenge remains for nurses to continue to develop theory that links modalities and explanatory paradigms. These links are being developed along nursing themes of health, environment, and individual potentials for healing. The model could help to provide a geographic map to locate these dialogues.

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REFERENCES

1. Chinn PL, Kramer MK. Theory and Nursing: A Systematic Approach. St. Louis, Mo: Mosby; 1995. [\[Context Link\]](#)
2. Fitzpatrick JJ, Whall AL. Conceptual Models of Nursing Analysis and Application. 3rd ed. Stamford, Conn: Appleton & Lange; 1996. [\[Context Link\]](#)
3. Newman MN. A Developing Discipline: Selected Works of Margaret Newman. New York, NY: National League for Nursing Press; 1995. [\[Context Link\]](#)
4. Barnum BJS. Nursing Theory: Analysis, Application, Evaluation. Philadelphia, Pa: Lippincott; 1994. [\[Context Link\]](#)
5. Snyder M. Defining nursing interventions. Image J Nurs Schol. 1996;28(2):137-141. [\[Context Link\]](#)
6. International Council of Nurses. Nurses' Next Advance: An International Classification for Nursing Practice. Geneva, Switzerland: ICN, 1993. [\[Context Link\]](#)
7. Martin KS, Scheet NJ. The Omaha System: Applications for Community Health Nursing. Philadelphia, Pa: W.B. Saunders; 1992. [\[Context Link\]](#)
8. McCloskey JC, Bulechek GM. Nursing Interventions Classification (NIC). St. Louis, Mo: Mosby; 1996. [\[Context Link\]](#)
9. Grobe SJ. The nursing lexicon and taxonomy: implications for representing nursing care data in automated patient records. Holistic Nurs Pract. 1996;11(1):48-63. [\[Context Link\]](#)
10. Saba VK. The classification of home health nursing. Caring. 1992;11(3):50-57. [Bibliographic Links](#) | [\[Context Link\]](#)
11. Reed, PG. A treatise on nursing knowledge development for the 21st century: beyond postmodernism. ANS. 1995;17(3):70-84. [Ovid Full Text](#) | [Request Permissions](#) | [Bibliographic Links](#) | [\[Context Link\]](#)
12. Fawcett J. Analysis and evaluation of nursing theories. Philadelphia, Pa: F.A. Davis; 1993. [\[Context Link\]](#)
13. Webster's Ninth New Collegiate Dictionary. Springfield, Mass: Merriam-Webster; 1990. [\[Context Link\]](#)

14. Owen MJ, Holmes CA. Holism in the discourse of nursing. *J Adv Nurs*. 1993;18:1688-1695. [Full Text](#) | [Bibliographic Links](#) | [\[Context Link\]](#)
15. Alster, KB. *The Holistic Health Movement*. Tuscaloosa, Ala: University of Alabama Press; 1989. [\[Context Link\]](#)
16. English-Lueck JA. *Health in the New Age: A Study in California Holistic Practices*. Albuquerque, NM: University of New Mexico Press; 1990. [\[Context Link\]](#)
17. Gordon, JS. The paradigm of holistic medicine. In: Hastings AC, Fadiman J, Gordon JS, eds. *Health for the Whole Person*. Toronto, Ontario: Bantam Books; 1980. [\[Context Link\]](#)
18. Lowenberg JS. *Caring and Responsibility*. Philadelphia, Pa: University of Pennsylvania Press; 1989. [\[Context Link\]](#)
19. Mattson PH. *Holistic Health in Perspective*. Palo Alto, Calif: Mayfield; 1982. [\[Context Link\]](#)
20. Toulmin S. *Cosmopolis: The Hidden Agenda of Modernity*. Chicago, Ill: University of Chicago Press; 1990. [\[Context Link\]](#)
21. Kuhn T. *The Structure of Scientific Revolutions*. Chicago, Ill: The University of Chicago Press; 1972. [\[Context Link\]](#)
22. Tarnas R. *The Passion of the Western World: Understanding the Ideas That Have Shaped our World View*. New York, NY: Ballantine Books; 1991. [\[Context Link\]](#)
23. Lavine TZ. *From Socrates to Sartre: The Philosophic Quest*. New York, NY: Bantam; 1984. [\[Context Link\]](#)
24. Johnson P. *Intellectuals*. New York, NY: Harper Perennial; 1988. [\[Context Link\]](#)
25. Engebretson J. Comparison of nurses and alternative healers. *Image J Nurs Schol*. 1996;28(2):95-100. [\[Context Link\]](#)
26. Engebretson J. *Cultural Models of Healing and Health: An Ethnography of Professional Nurses and Healers*. Houston, Tex: University of Texas-Houston, School of Public Health; 1992. Dissertation. [\[Context Link\]](#)
27. Engebretson J, Wardell D. A contemporary view of alternative healing modalities. *Nurse Practitioner*. 1993;18(9):51-55. [Ovid Full Text](#) | [Request Permissions](#) | [Full Text](#) | [Bibliographic Links](#) | [\[Context Link\]](#)
28. Engebretson J. Models of heterodox healing. *Alternat Ther Health Med*. In press. [\[Context Link\]](#)
29. Andrews MM, Boyle JS. *Transcultural Concepts in Nursing Care*. 2nd ed.

Philadelphia, Pa: Lippincott; 1995. [\[Context Link\]](#)

30. Freund PES, McGuire MB. Health, Illness and the Social Body: A Critical Sociology. Englewood Cliffs, NJ: Prentice-Hall; 1991. [\[Context Link\]](#)

31. Douglas M. Purity and Danger: An Analysis of the Concepts of Pollution and Taboo. London, England: Ark Paperbacks; 1989. [\[Context Link\]](#)

32. Brown PS. Nineteenth-century American health reformers and the early nature cure movement in Britain. Med History. 1988;32:174-194. [\[Context Link\]](#)

33. Whorton JC. Crusaders for Fitness: The History of American Health Reformers. Princeton, NJ: Princeton University Press; 1982. [\[Context Link\]](#)

34. Kaptchuk TJ. The Web that Has No Weaver: Understanding Chinese Medicine. New York, NY: Congdon and Weed; 1993. [\[Context Link\]](#)

35. Helman CG. Culture, Health and Illness: An Introduction for Health Professionals. 3rd ed. Wolburn, Mass: Butterworth-Heinemann; 1994. [\[Context Link\]](#)

36. Reese WL. Dictionary of Philosophy and Religion: Eastern and Western Thought. Atlantic Highland, NJ: Humanities Press; 1991. [\[Context Link\]](#)

37. Horgan J. The End of Science, Facing the Limits of Knowledge in the Twilight of the Scientific Age. Reading, Mass. Addison Wesley; 1996. [\[Context Link\]](#)

38. Dossey BM, Keegan L, Guzzetta CE, Kolkmeier LG. Holistic Nursing: A Handbook for Practice. Gaithersburg, Md: Aspen Publishers; 1995. [\[Context Link\]](#)

39. Slater VE. Toward an understanding of energetic healing, part 1: energetic structures. J Holistic Nurs. 1995;13:209-224. [Full Text](#) | [Bibliographic Links](#) | [\[Context Link\]](#)

40. Slater VE. Toward an understanding of energetic healing, part 2: energetic process. J Holistic Nurs. 1995;13:225-238. [Full Text](#) | [Bibliographic Links](#) | [\[Context Link\]](#)

41. Rossi E. The Psychobiology of Mind-Body Healing. New York, NY: W.W. Norton; 1993. [\[Context Link\]](#)

42. Orth-Gomer K, Schneiderman N. Behavioral Medicine Approaches to Cardiovascular Disease Prevention. Hillsdale, NJ: Erlbaum; 1996. [\[Context Link\]](#)

43. Dreher H. The Immune Power Personality. New York: Dutton; 1995. [\[Context Link\]](#)

44. Schneiderman N, McCabe P, Baum A. Perspectives in Behavioral Medicine: Stress and Disease Processes. Hillsdale, NJ: Erlbaum; 1992. [\[Context Link\]](#)

45. Larson DB. Religion and spirituality-the forgotten factor in public health: what does the research share? Presented at the 12th annual meeting of the American Public Health Association, November 18, 1996; New York, NY. [\[Context Link\]](#)
46. Cox H. Fire from Heaven. Reading, Mass: Addison-Wesley; 1995. [\[Context Link\]](#)
47. Kleinman A. Patients and Healers in the Context of Culture. Berkeley, Calif: University of California Press; 1980. [\[Context Link\]](#)
48. Rogers ME. An Introduction to the Theoretical Basis of Nursing. Philadelphia, PA: F.A. Davis; 1970. [\[Context Link\]](#)
49. Watson J. Nursing: Human Science and Human Care: A Theory of Nursing. New York, NY: National League for Nursing. [\[Context Link\]](#)
50. Parse RR. Man-Living-Health: A Theory of Nursing. New York, NY: Wiley; 1981. [\[Context Link\]](#)
51. Newman MA. Health as Expanding Consciousness. 2nd ed. New York, NY: National League for Nursing; 1984. [\[Context Link\]](#)
52. Nagle LM, Mitchell GJ. Theoretic Diversity: Evolving Paradigmatic Issues in Research and Practice. Gaithersburg, Md: Aspen Publishers; 1991. [\[Context Link\]](#)
53. McKeon ZK. On Knowing the Natural Sciences. Chicago, Ill: University of Chicago Press; 1994. [\[Context Link\]](#)

Select All

	Features				Advantages
Advantages	Robustness	Modularity	Portability	Security	Scalability
	Flexibility	Interoperability	Extensibility	Reliability	Performance
	Adaptability	Customization	Integration	Consistency	Flexibility
	Scalability	Interoperability	Extensibility	Reliability	Performance
	Flexibility	Interoperability	Extensibility	Reliability	Performance
Disadvantages	Complexity	Interoperability	Extensibility	Reliability	Performance
	Complexity	Interoperability	Extensibility	Reliability	Performance

Figure 2