

# Community Analysis in Community Health Nursing Practice: The GENESIS Model

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**Abstract** A community-analysis strategy, GENESIS (general ethnographic and nursing evaluation studies in the state), is a comprehensive, holistic portrait of communities obtained through secondary analysis of existing data and qualitative methods. The GENESIS method is delineated and examples of studies are presented. To explicate the method and illustrate the findings, an aggregate-focused GENESIS study and two studies in which entire communities were the targets are compared and contrasted. Other defining concepts of nursing, such as caring and health, are redefined or explicated to make them congruent with the recognition that for community health nurses, the community is the client.

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In collaboration with other health professionals working in the public sector, community health nurses (CHN) are involved in analyzing communities and populations. These studies are needed to develop programs and systems of care to improve health. Because the community is the client of CHNs, these nurses must possess skill in community analysis to identify health beliefs and values as well as patterns of risk factors, disease, and other health problems amenable to nursing interventions (Schultz, 1987). Community health nurses must assume a leadership role in designing and conducting community and aggregate analyses based on the purpose or intended use of the findings, and consistent with

the needs and character of the community. A creative community-analysis strategy, GENESIS (general ethnographies and nursing evaluation studies in the state), generates a comprehensive, holistic portrait of a community or an aggregate through secondary analysis of existing data and qualitative methods.

## BACKGROUND

Williams (1984) defined an aggregate as a population with a health-related attribute in common, such as disease, demographics, and culture. Recognition that for community health nursing, a client is more than a single individual was enhanced by the work of Schultz (1987). Schultz argued that use of the term "pluralities of persons" to define the client of CHNs incorporates the more personal and humanistic relationship between nurse and client. A congruent definition of caring must also accompany the denotation of community as client.

Traditional views of caring have centered on the one-to-one relationship between a nurse and an individual. Other defining concepts may require explication or redefinition. For example, caring may be defined as a partnership between the nurse and the community in which the goal is to empower individuals to improve the health of the entire community through activities such as changing health policies to protect the environment. Similarly, health is defined broadly to reflect the complex nature of a community to include socioeconomic, cultural, environmental, and other similar, relevant factors in addition to the usual morbidity and mortality statistics (McCarthy et al., 1991).

In our studies, a community is defined by a physical area in which members interact to meet common needs

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and goals. Interaction signals a second dimension, the idea that a community is an emergent social entity that is more than the sum of its population.

The aggregate of persons who constitute the population of a community has long been recognized as an important component of community analysis (Archer & Fleshman, 1979; Freeman & Heinrich, 1981; Goepfing, 1984; McKay & Segal, 1983). The aggregate or population should be studied within the context of its environment and lifestyle. McKay and Segal (1983) and Williams (1984) outlined the types of variables that measure health properties of populations to help identify patterns of risk factors, patterns of disease and other health problems, personal values, and patterns of perceived needs. Goepfing (1984) and others offered a variety of methods for assessing communities. A key outcome of community analysis missing from early studies is a focus on health rather than health problems as perceived by the individuals experiencing them. Outcomes of community analysis must be linked to the culture as lived and to the context and environment as it is experienced by members of the community.

The traditional approach to community assessment has been quantitative, using survey methods such as census enumerations, and other primary community surveys on topics such as health, economics, and education. These data are often subjected to secondary analysis to obtain information on community health from which recommendations can be made (Schultz & Magilvy, 1988). Thus, properties of aggregates and communities discernible through qualitative approaches have been lacking in most community assessments (Ruffing-Rahal, 1985).

An alternative method of community analysis is the project GENESIS conducted by community health faculty and graduate students at the University of Colorado Health Sciences Center School of Nursing. In these studies, quantitative information is obtained from the traditional sources, such as available health surveys, epidemiologic studies, and census reports. Qualitative data are obtained through ethnographic methodology. Both types of data provide the text of evidence about the aggregate or community being studied. Analysis and triangulation of these data reveal themes that contribute to the description of the health of the community or aggregate.

Similarly, the structure and functioning of the community are assessed by doing a secondary analysis of various types of previously collected information pertaining to its numerous institutions and sectors (e.g., economic, political, religious, social, cultural, environmental). These components are viewed as essential elements because of the underlying assumption of the

GENESIS design that the health of a population and community do not exist in isolation but are part of the whole fabric of the community (Glittenberg, et al. 1981). Whereas these types of information do not directly define the health of a community, understanding the community dynamics does contribute to an understanding about the health of the community. These quantitative data, combined with qualitative data generated from ethnographic methods, present evidence about forces that may influence the health of the aggregate and the community.

## METHODS

Project GENESIS is based on the premise that the health needs of a population or aggregate are interrelated with the environmental, economic, social, educational, and cultural needs of that group (Magilvy & McMahon, 1986; Schultz & Magilvy, 1988). Health is viewed broadly, and communities or aggregates are seen as complex networks possessing patterns of leadership, traditions, values, and assets and talents as well as shortages and inadequacies. In an effort to address complex social, health, and quality of life issues and to suggest solutions to community health problems, an understanding of the culture, values, and priorities of community members is essential. Unlike traditional analysis methods in which this information is not usually obtained, these data and findings are basic components of GENESIS studies.

Through a combination of secondary analysis of existing data about a community and ethnographic field methods, investigators can establish a holistic picture of a community or aggregate from the perspective of the people who live or work there. In contrast to a generalized representation of average needs resulting from survey research, project GENESIS provides a comprehensive description, rich with personal perceptions of community members sharing their experiences as they evaluate their community's health needs and strengths.

Each of the project GENESIS studies was conducted in response to an invitation from a community group or agency, including community nursing services, city councils, health departments, citizens' advisory groups, and chambers of commerce. The ability of the School of Nursing to respond to these requests created opportunities to provide a service to the state that generated additional positive outcomes in the form of improved public relations and student recruitment.

The research methods were developed and changed through the years, based on the focus of the analysis and the special needs and contributions of different

groups of students and faculty. The basic steps of the process are as follows:

1. Collect previously published data about a community or aggregate, and conduct a secondary analysis to describe the distribution of health and illness in the population and to guide the primary data generation process. Secondary data can include epidemiologic studies, census data, economic reports, histories, annual reports, and health studies.
2. During in-depth visits (numerous day trips of 3–5 days), identify and interview key informants. The ethnographic word “informant” refers to individuals who live or work in a community who can inform us about their lives. Key informants are formal and informal leaders in a community, such as government officials, editors, administrators, organization presidents, and local historians.
3. Interview primary informants and conduct participant observations in the community. Primary informants are members of the aggregate or community, who, in most cases, are not official community leaders. Field notes, tape transcripts, and photographs are the major methods of recording data in these interviews and observations.
4. Combine and analyze secondary and primary data. Develop lists of strengths, weaknesses, and net values for each of the themes that emerge from the analysis. Identify recommendations to improve the health of the community.
5. Present a written and oral report to the community and ask for feedback. A town meeting is the usual format for this, although newspaper and radio interviews also extend the findings to the community. Slides are used to illustrate findings as well as share an outsider’s perceptions of community life and generate dialogue with community members.

The sample for project GENESIS investigations consists of persons who live and/or work in a community or who are identified as members of an aggregate within a community. Key informants, the community leaders, offer clues about good sources or access to other key and primary informants, events or places to conduct observations, and documents of interest to the research team. We have been especially pleased with the use of our own photography as an additional research tool; photographs and slides provide another window into the community and enrich the verbal and observational data.

An important feature of GENESIS is the way in which traditional ethnographic methods are adapted and focused. For example, in traditional ethnographic stud-

ies, themes generally emerge from the data during analysis. In our studies, aspects of community life thought to influence health are preassigned to members of the research team in an effort to provide some structure for the interviews and to enhance the educational and analytic processes. These somewhat global variables might include environment, recreation, economics, politics, religion, housing, social support, education, and health care services. Thus, all interviewers adhere to general guidelines consistent with the objective of the study: to learn about the health needs and strengths of the community from the perspective of community members.

After data generation and analysis, some of these variables remain as overall themes, and additional themes emerge (e.g., lifestyle, food and nutrition, families, employment). Most of the studies also resulted in one or more typologies or classification schemes of residents. The major domain of health represents the culmination of the analysis. Many themes reside within this domain, informed by analysis of each previous section or theme of the study.

### COMPARISON OF RESULTS

Although it is not the intent to generalize from qualitative studies, comparing and contrasting experiences and findings can be informative. Continuing evaluation of GENESIS projects results in changes to enhance the quality of the studies and to improve the learning experience for students.

#### Aggregate-Focused Project GENESIS

The aggregate-focused study of elderly residents took place in a semirural town near Denver. These individuals fell into two groups: the long-timers and the newcomers (Magilvy et al., 1985). Long-term residents had strong support system of family, friends, church, and other organizations. In contrast, not even short-term residents who had children in the area reported a sense of belonging. Residents of this community could also be described in terms of their membership in one of several ethnic groups that contributed to their social support and sense of belonging.

The rate of growth in the community with attendant developments such as a new metropolitan airport, new industry, and new housing developments were received with mixed feelings by older persons. Some looked forward to the changes as exciting and invigorating. Others feared losing the community’s small town appeal. Health education programs and greater access to health services for the elderly were identified needs. Based on these findings, students and faculty derived the follow-

ing recommendations to preserve, promote, or restore the health of the aggregate:

1. Use marketing strategies with health and social and senior service agencies to reach seniors who are isolated.
2. Offer health education classes specifically for seniors, including some conducted in Spanish.
3. Explore ways to increase access to health services by seniors.

#### **Community-Focused Projects**

The second type of GENESIS study involved a community focus. The first of the two projects studied two adjoining towns located in a mountain valley and linked by a center of commerce (Magilvy, Stoner, & Farley, 1987). Results revealed viable, strong communities populated by active, healthy people. Residents and tourists alike are drawn to these communities by the beautiful environment, clean air, wide variety of recreational activities available, and safe, friendly atmosphere. Despite the general portrait of vitality and health, several health-related concerns and potential threats to the health of the community were identified, including increased stress related to economic instability, dependence on drugs and alcohol across the age span, and limited access to health care by the medically indigent. The following recommendations were made for the health of these mountain communities:

1. Encourage good nutrition, exercise, and stress-reduction strategies.
2. Form a community task force to provide and coordinate prevention and treatment programs for substance abuse for both adults and adolescents.
3. Develop a health care program for the indigent.

The third GENESIS project also centered on an entire community, which was defined by a geopolitical boundary of a county. In this very rural and somewhat isolated town, the health of the population was dependent on the strength and stability of the economy, communication among various groups, initiative by leaders, and continued cooperation in which people help each other (Schultz et al., 1988). Whereas the primary health concern was the imminent closure of the community hospital due, in part, to a shortage of nurses, other health problems emerged from the analysis. Substance abuse was identified as a problem by members of the community. Findings related to teen pregnancy and spouse and child abuse were inconsistent, with some community members perceiving them as problems and others denying awareness of difficulty in those areas. A

history of self-reliance and reluctance to depend on help from outsiders contributed to the development of the following recommendations to improve the health of this community:

1. Form a task force to study teen pregnancy more systematically to define its extent and nature, and enable the development of effective intervention programs.
2. Establish teen recreation programs to provide substance-free opportunities for socialization.
3. Encourage local health professionals to coordinate efforts for better use of resources, greater satisfaction in practice, and improved care of specific populations such as the elderly.

#### **SIGNIFICANCE AND IMPLICATIONS**

Project GENESIS has implications for clinical practice, graduate nursing education, and research. Clinical practice in community health nursing has always been based on identified needs in the community; however, the focus on community or aggregate as client necessitates development of more sophisticated assessment, analysis, and planning strategies. Grounded in a phenomenologic framework and ethnographic methods that emphasize understanding the culture, values, and lifestyles of community members, project GENESIS represents a creative approach to community analysis for practitioners, educators, and researchers.

Community health nurses can conduct GENESIS studies and assume a leadership role in working with other health professionals to do community analysis. Based on findings of GENESIS studies, CHNs can intervene with client communities to retain their positive resources, correct weaknesses, and empower citizens to take action to improve their health. Community leaders can be assisted by CHNs to initiate program planning, development, implementation, and evaluation activities. Nurses can take a leadership role in making and influencing health policy decisions using written and oral reports of these studies. Thus, this research is real and practical for community health professionals.

As a strategy for graduate nursing education, each project GENESIS study afforded students the opportunity to conduct a hands-on investigation in which they participated in all phases of the research process, and saw the study through to completion. Presenting the findings to the community facilitates synthesis of the process and methods, as well as reinforces the use aspects of the research. Although sometimes difficult and frustrating, the team aspect of the project provides opportunities for collaboration and group process. Grad-

uates of the program report that methods learned in GENESIS studies have been useful in their employment settings and clinical practice.

As a clinical research strategy, project GENESIS is conducted in the environmental and cultural context and is grounded in the experiences of members of a community or aggregate. The result is a rich and meaningful description of the health of a population. These studies have contributed to the community-population focus in our discipline.

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### REFERENCES

- Archer, S. E., & Fleshman, R. P. (1979). *Community health nursing: Patterns and practice* (2nd ed.). North Scituate, MA: Duxbury Press.
- Freeman, R. B., & Heinrich, J. (1981). *Community health nursing practice*. Philadelphia: W.B. Saunders.
- Glittenberg, J. (1981). An ethnographic approach to the problem of health assessment and program planning: Project GENESIS. In P. Morley (Ed.), *Developing teaching and practicing transcultural nursing*. Salt Lake City, UT: University of Utah Press.
- Goepfinger, J. (1984). 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* (pp. 317-404). St. Louis: C. V. Mosby.
- Magilvy, J. K., McMahon, M., Bachman, M., Evenson, C. (1987). The health of teenagers: A focused ethnographic study. *Public Health Nursing*, 4(1), 35-42.
- Magilvy, J. K., Stoner, M. H. (1985). *Being older in Brighton*. Unpublished report, University of Colorado School of Nursing, Denver.
- Magilvy, J. K., Stoner, M. H., & Farley, M. J. (1987). *Life in the valley*. Unpublished report, University of Colorado School of Nursing, Denver.
- McCarthy, P., Craig, C., Bergstrom, L., Whitley, E., Stoner, M. H., & Magilvy, J. K. (1991). Caring conceptualized for community nursing practice: Beyond caring for individuals. In *Anthology on caring*. National League for Nurses.
- McKay, R., & Segall, M. (1983). Methods and models for the aggregate. *Nursing Outlook*, 31(6), 328-334.
- Ruffing-Rahal, M. A. (1985). Qualitative methods in community analysis. *Public Health Nursing*, 2(3), 130-137.
- Schultz, P. R. (1987). When client means more than one: Extending the foundational concept of person. *Advances in Nursing Science*, 10(1), 71-86.
- Schultz, P. R., & Landenburger, K. M. (1988). *Life and health in Lincoln County*. Unpublished report, University of Colorado School of Nursing, Denver.
- Schultz, P. R., & Magilvy, J. K. (1988). Assessing community health needs of elderly populations: Comparison of three strategies. *Journal of Advanced Nursing*, 13, 193-202.
- Williams, C. A. (1984). Population-focused practice. In M. Stanhope & J. Lancaster (Eds.), *Community health nursing: Process and practice for promoting health* (pp. 805-815). St. Louis: C. V. Mosby.