

DEVELOPING CONSENSUS ON CANADIAN FAMILY HEALTH NEEDS: A STEP TOWARDS POLICY DEVELOPMENT

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This paper briefly discusses the relationship between research and policy development, and reports on how the Delphi process was used as a research method for beginning to identify strengths and needs of Canadian families. The research was initiated by the Family and Child Health Unit (FCHU) of Health and Welfare Canada early in 1986 as part of the national health promotion initiative.

Research and Policy

Approaching policy development from a research perspective is certainly not always the practice - nor is it always possible. There are many factors influencing policy development besides research findings. These include: personal experience and ideology of policy makers, political ideology, media attention and other social forces (e.g. interest groups and lobbying).

Although research can and should compliment the policy development process, frequently the timing between research and policy is out of synchrony. Policy development cannot wait until all the findings are in, nor can it wait for the studies to be replicated sufficiently for researchers to feel comfortable in unequivocally stating the significance of their findings to the problem at hand. The community of policy-makers is action-oriented, rarely spending much time communicating to the research community its requirements, processes, or points of intervention.

On the other hand, the research community seldom asks policy makers about their research needs or about methods of presentation that could be helpful in assisting policy officials make choices among alternatives. Researchers should address these issues so that research findings can be presented in a timely and appropriate fashion.

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Research can influence policy in two ways: by clarifying problems that require correction by policy intervention, or by identifying appropriate solutions. Opportunities for combining research expertise and policy formulation responsibilities, although rare, can be found. As Chief of the FCHU, I seized the opportunity to bring a research perspective into the position's responsibilities for programme development and policy formulation. Prior to developing family health promotion programmes, it was essential that health promotion policy that was relevant to families' health needs be formulated. *The Canadian Family Health Needs Survey* was designed to clarify this policy.

The Canadian Family Health Needs Survey

The issue

Of all the variables associated with successful general health promotion programs, the most salient are probably population-based and community development approaches. For family health promotion programs to be successful they must also have family relevancy. Health promotion programmes aim to enable families to increase control over, and to improve, their health - one of the resources for everyday living (WHO, 1984). Health promotion programmes involve "normal" and "problem" families - families with strengths and needs of varying intensities. Thus, a perspective that recognized families as units and targets of care, with strengths as well as needs was required: a perspective that recognized the need for policies and programmes that build on family strengths and assist with solving or meeting family needs and problems. Strengths are family qualities that help families succeed in their family tasks: e.g. appreciate one another, communicate well (Stinnett & DeFrain, 1985).

Initial work by the FCHU revealed that health promotion approaches and family perspectives were still embryonic in family health program development and policy formulation. Although much has been written about individuals, their health and health needs, neither the professional nor popular literature provided much insight into Canadian families' strengths or health needs. Experts in the fields of health and social services have been hesitant to generalize beyond the findings of demonstration programs or their own specific area of expertise. Not surprising, perhaps, has been the paucity of documentation regarding what it is that families identify as family strengths and health needs. It was clear that a better knowledge base was required to contribute to the future work in developing family health programs and policies.

Thus, a study was designed to help determine Canadian family strengths and health needs from a variety of perspectives: from families as units, not

just from one or two informants; from community workers involved with families requiring support; and from social and health service agencies in the families' communities. Because it was preferable to learn from each of these sectors, as well as to determine the degree of consensus regarding the health needs and their priority, the Delphi survey approach was chosen as an appropriate research method.

The Delphi Process

The Delphi technique takes its name from the Greek god Apollo Pythios who, as master of Delphi, was renowned for his ability to predict the future. The purpose of the process is to generate discussion and aggregate the judgments of a number of individuals on a specified topic. Thus policy decisions can be based on data that represent a given group's wants and views (Goodman, 1987). Delphi studies in the health care field have surveyed health professionals' views of spending priorities (Charlton, Patrick, Matthews & West, 1981), canvassed health workers' perceptions of the problems experienced by women of differing cultural groups in their use of maternity services (Anderson & Ruiz-Eglesias 1983), aided health care planning and policy making with minimal uncertainty (Lyons 1981, Rauch 1979), and forecasted the use of medicines in the 1990's (Teeling-Smith, 1969). Lindeman (1975), Snyder Hill (1984), Bond and Bond (1982) and Goodman (1987) have employed the principles of the Delphi technique to establish clinical and nursing research priorities.

A number of characteristics of the Delphi process were considered to be particularly important to the selection and implementation of this research method and for the FCHU's future endeavours. First, the Delphi Process does not require face-to-face contact. Thus, it is particularly useful for involving various people, in a variety of settings, who cannot come together physically. Delphi also allows people to remain anonymous, a Statistics Canada requirement for this national survey. A third important factor was that the research method prevents domination by certain individuals (Delbecq, Van de Ven & Gustafson, 1975). This was critical in obtaining valid and reliable data and removing any perceived threat that families might anticipate of having services withheld.

Method

The research design had to be national in scope with representation from metropolitan, urban, and rural areas. As well, it was important to involve the participating communities as much as possible in the research process to obtain as high as possible a response rate, and retain respondents over the three phases. Each of the initially chosen participants was included in each of the three phases of the Delphi process, regardless of whether or not they responded to the previous phase(s).

Purposive sampling was employed as the most appropriate technique for both community and respondent selection (Woods & Catanzaro, 1988). Three communities (metropolitan, urban and rural) in each province and two communities (urban and rural) in the two territories were selected by Health and Welfare's five regional offices. The officer responsible for family health programmes in each region chose the communities on the basis of the following criteria: representative of similar communities of the same size within the region; accessible postal and transportation services; and, varied population and services within the community.

Within each community a community worker was contracted to obtain a purposive sample of ten families, ten health care/social service workers and ten social and health care agencies (where possible). The community worker was hired by the Health and Welfare Regional Office on the basis of residency in the selected community; knowledge of the community and its residents; previous experience with the regional office; and, ability to communicate with lay and professional community residents.

The community worker was provided with selection criteria so that a cross-section of the community would be sampled. Families were to include those with and without children; in all phases of the life cycle; in all economic and social levels; and, with varying educations and cultural backgrounds.

Health care and social service workers were to represent all disciplines practising in the community and be as varied as possible. Except for cities, to get a sample of ten agencies, all agencies were approached to participate. When selection was possible, the criteria stated that they should be representative of those providing services to families in that community. Community workers were required to submit names and addresses to the researchers, which provided the initial check that the selection criteria had been applied. This was further validated through analysis of the demographic data provided at the end of the third phase.

Phase One required participants to respond, in narrative format, to a broad question asking about needs and services perceived to be necessary to improve the health of families in that community. The responses were content analyzed into categories and sub-categories of family health needs. Phase Two requested the participants to rate, on a scale of 1 to 100, the importance of each need in the composite list of categories and sub-categories. They were also asked to indicate whether or not these needs were presently being met. Scores for each need were computed from the responses. Items were then rank ordered, based on the scores. The third phase presented the analyzed and reduced data of Phase Two and asked participants to indicate their agreement or disagreement with the results.

External validity was controlled for by the criteria for community and sample selection and verification on analysis of demographic data, while internal validity was addressed by having the questions relate to the present and the study completed in a short space of time. Thus changes in initial perceptions or services were not likely to have occurred, except as respondents reflected upon and reacted to the feedback. Perceptions of the three subsamples were compared by categories, consensus and priority ratings as a means of determining the internal validity. Stability and intercoder reliability were assessed at intervals in each phase to determine the extent of reliability. Data were recoded and discussed with FCHU staff until consensus was reached.

Special considerations

To increase the likelihood that a successful Delphi process would be completed, it was necessary to ensure that adequate time, participant skill in written communication and high participant motivation were available. A research team was established to ensure that these critical research conditions of the Delphi process would be met.

Adequate time. A time frame of four months was planned for data collection for all three phases. However, the research took six months, because of a number of unanticipated or uncontrollable factors. These included:

1. extensive time required for pilot testing in both official languages and revising question one;
2. limited availability of translation services;
3. variation in postal service delivery time;
4. extensive narrative data provided in response to Phase One that required analysis for the development of Phase Two; and
5. high response rate, especially to Phase One.

Participant skill in written communication. Skill in written communication would not pose a problem for social and health care professionals or agency administrators. However, the family situation was different, because the sample was to represent the diversity of the population of the community, including educational and cultural backgrounds. Therefore the following measures were taken: all written materials were produced in both French and English; the instructions and question for Phase One were pilot tested for meaning and a maximum grade seven reading level; the family was requested to respond as a unit, with one member acting as recorder; and community assistance in translation was available for the Inuit speaking population. From the family responses, it was obvious that there was a wide literacy variability, implying that even those with minimal skills in writing either English or French participated. It was also clear that the responses had not just been written by the mother. In some cases, especially in the first

phase, the content reflected other family member involvement; in other cases a younger member noted that they were the scribes of the family responses.

High participant motivation. Participant motivation was addressed in the research design by working through Health and Welfare's regional offices to employ a knowledgeable and credible liaison worker in each community. This community resident identified and contacted survey participants. Other strategies included providing participants with free telephone access to the contracted researcher and following up with letters of appreciation and questions for Phases Two and Three within a short time period.

Except for two metropolitan communities and one community of the territories, the response rate was very good and relatively consistent over the three phases. The response rate for the total survey (all three phases) was approximately 51%, a decrease of only 6% from Phase One, which had a 57% response rate. From a sample size of 750, there were 590 usable responses analyzed in Phase One, 633 in Phase Two and 514 in Phase Three (175 families, 174 agencies and 165 workers).

Family structure ranged from two parents with children to homosexual relationships, with the majority (73%) being two-parent families. The number of members in a family ranged from 1 to >10, with the majority (82%) having 3-5 members. The parents' mean educational level was "some college/university" for both mothers and fathers, while the mean yearly family income was \$30-39,999.

The 174 agencies included social, health and medical agencies; family-, children- and elderly-oriented agencies; alcohol and drug-, handicapped-, mental health- and recreation-related agencies; and women's support agencies. Thirty-four different services were provided, with counselling the primary one. Over one third (38%) of the agencies had a waiting list of 25-49 clients. Sixty-six percent of the agencies indicated that they were unable to provide the services they would like to. Public resources were the major source of funding.

The health care/social service workers who responded were social workers (48%), nurses (39%), counselors (27%), teachers (15%), physicians (14%) and others. Almost one quarter (23%) had been practising more than 15 years. The most frequent services they provided were individual counselling (57%), information/referral (55%) and family counselling (44%).

Development of questionnaires

French and English family questionnaires were pilot tested and revised for Phase One. The question, "What does your family do or need to be

healthier?" was changed to, "What do you think families, like yours, living in your community, have or need to have to be healthy?" Respondents found the personal aspect of the pilot question threatening and did not know what "healthier" meant: "healthier than what?" Questionnaires for health care/social service workers and agencies were reviewed by Health and Welfare staff and personnel of two agencies. Few changes were required.

Separate, but comparable instructions and definitions of categories and sub-categories were prepared for each of the three sub-samples of participants for each phase of the survey. Instructions for families asked them to consider the needs of all family members, discuss the question as family and have one member do the writing. All printed materials for the survey were translated into French and back into English to improve the accuracy.

Analysis

Reliability of content analysis was established during Phase One. The first 25 agency and worker responses and first 17 family responses were content analyzed and categories and definitions established. The same responses were then coded by a research assistant, using the developed categories and definitions. Discrepancies were noted and necessary revisions made. The remaining responses (total 548) were then coded. For those responses that did not fit any one of the categories, new category names and definitions were developed. A master list of categories, sub-categories and definitions was compiled from each group of respondents. Frequencies for each category and sub-category were determined from the 590 responses.

Means of the 633 responses in Phase Two were calculated for ratings of importance for each item. "Metness" of needs was determined by majority of responses. Analysis of 585 responses to Phase Three established frequencies and means for each category and sub-category of family health needs. The percentage of agreement with results obtained in Phase Two was then calculated. New needs or priorities were noted as they emerged in responses to phases Two and Three.

Findings

Specific findings are compiled in FCHU documents, not yet released to the public. However, it can be reported that in general there was considerable agreement among families, workers and agency administrators as to the categories and priorities of needs. Variations by geographic location were noted in priority ratings of categories as well as among sub-categories. For example, almost all respondents considered that availability of nutritious and fresh food at reasonable prices was highly important, and on the whole the need was met. However, participants from some regions commented that

fresh food was available only seasonally and that the need for information on substitutes was not met. Many felt that school and adult nutrition education was of high importance, and was generally available. The overall rating of the category, Nutrition, was rated as medium importance.

From perspectives of the respondents, family health needs are not just related to medical needs. Analysis of their responses revealed a socio-ecological or holistic approach to health - an approach consistent with that of the World Health Organization: "Basic resources for health are income, shelter and food" (WHO, 1984, 1). Canadians identified health needs that, through content analysis, were categorized as lifestyle behaviours, environmental conditions and community services. *Lifestyle* behaviour included the following categories of family health needs: clothing, leisure time, social relationships, marital relationships, parent-child relationships and self-help skills. Family health needs related to *environmental* conditions included housing, human rights, income, employment and smoke-free environments; while those related to *community* services were transportation, education (child and adult) and health care (medical, mental, dental and substance abuse). These findings support the healthy public policy health promotion strategy (Epp, 1986) and "Family Health Consultations" of Health and Welfare Canada.

Advantages and Limitations

Both limitations and advantages were found in using the Delphi process to assess family health needs and to determine their relative importance. These are discussed according to the four characteristics of the Delphi process: anonymity, iteration with controlled feedback, statistical group response and use of experts.

Anonymity

Although the community liaison worker had knowledge about the participants, this knowledge was neither shared among participants, nor with the research team. The only information given to the research team were names and addresses, for mailing purposes only. The returned anonymous questionnaires were coded by postmarks, for community analysis and comparison purposes. When the Phase Three questionnaire was distributed, each respondent was asked to complete a separate demographic profile sheet. Although this information sheet was separated from the questionnaire, the response rate for Phase Three decreased. Until then, it appeared that the respondents considered that their participation was indeed anonymous.

The obvious advantage of guaranteed anonymity is that it encourages opinions that are true and not influenced by peer pressure or other extrinsic

factors. Sackman (1975) suggests that anonymity may encourage snap judgments with the respondents secure in the knowledge that they will not be answerable to the other participants for what is said. However, in the majority of Delphi studies, including this one, individuals participating are recruited on the basis of their knowledge and willingness to participate, so that instant, unconsidered responses may be less likely to occur.

In the Canadian Family Health Needs Survey it was assumed that the anonymity of responses promoted an honest expression of views and contributed to the validity of the study. Each participant had an opinion to express, and was protected by the Delphi process from penalty or mockery for expressing that opinion.

Iteration with controlled feedback

Iteration with controlled feedback is usually achieved in Delphi studies through the use of successive questionnaires, to keep participants informed of the current status of the collective opinion, and to provide opportunities to comment further, to amend an original view or both. This essentially democratic characteristic of the Delphi process yielded a group opinion that had a considerable degree of representativeness.

Once subjects agreed to participate in the study, they were kept informed of the current status of the collective group opinion by receiving the information about each phase. The instructions encouraged collective responses: families were asked to respond as families, and to consider all the members and their needs; agency administrators were requested to respond for the agency. It was evident from the many hand written pages of responses, especially to Phase One, that this indeed had been a collective exercise.

The definition of health was intentionally broad, but perhaps led respondents to write wish lists with items that perhaps were "nice to have" instead of "needed to have". In attempting to satisfy Delphi's requirements of analysis and synthesis for Phase Two, some of the items of Phase One were taken out of the respondents' total original response. This may have caused confusion for some who did not recognize their Phase One answers, as they then had to interpret the meaning of the items in order to rate them.

Statistical group response

A statistical summary of the group's views on specific items, obtained through Delphi's feedback process with successive questionnaires, was a distinct advantage for the Canadian Survey. Two types of information were fed back to the Survey respondents: types and importance of health needs and services; and, whether or not these needs were met. The Delphi process

enabled respondents to express a degree of personal preference or dislike of an item, without taking a stand on a particular item at the expense of others. Yet, they could see where their opinion lay in relation to that of the total group. A study by Mullen (1983) demonstrated that respondents were more likely to remain close to their original opinions with such an approach. This was corroborated in the Canadian Family Health Needs Survey. Many respondents stated that they still agreed with their previous responses; they had changed only rating the priority.

A limitation of the Canadian Survey may be that there is no guarantee that the allocation of rating items, to prioritize them, was done with any more consideration than if the respondents had been asked to rank the individual items. Some respondents either stated they made "educated guesses" or did not rate items with which they were unfamiliar. These findings are similar to those of a study done in Kent (Charlton et al., 1981).

Consistent with Goodman's (1987) review, the Canadian Family Health Needs Survey indicated that the Delphi technique lent itself best to gathering opinion and initiating debate, as opposed to obtaining an in-depth analysis of family health issues. It was also apparent that the decision-making process of determining priorities relied more on the participants' understanding of the study's aims than on feedback they received during the study. There were few comments related to feedback. Rather, the comments were further explanations of the respondent's choice or clarification of the choice, vis a vis the study's questions. The contractor received calls throughout the three phases, requesting clarification of instructions or verification of the process the respondent was using (e.g. was it all right to include different family members from one phase to another?).

Goodman (1987) considers communication and decision making between interested, involved, but anonymous individuals to be pivotal to a Delphi study. Furthermore, she states that the emphasis should not be on making definitive judgments, but rather on determining the degree of stability of group response on an item (Goodman, 1987). Final judgments must always take into account the distribution of responses, including disagreements. Both distribution and disagreements were salient to interpreting the results of this national research. Although it was apparent what the priority issues were from the analysis, it was also important to know where there was disagreement and what this disagreement looked like, (e.g. geographic characteristics, variation within or among the sub-samples).

Use of experts

The originators of the Delphi technique tend not to advocate a random sample of panelists who are representative of the target population. Instead,

the use of experts or at least informed advocates is recommended, especially for policy issues.

The Canadian study recruited informed individuals from three expert categories - families, workers and administrators - from each province and territory in Canada. The research method allowed attention to be paid to a variety of demographic factors, in sample selection that encouraged a representativeness of Canadian families and their health needs and provided a means to assess validity.

Another advantage of the study's sampling process was the high level of commitment shown by the respondents. This was evidenced in the low attrition rate, frequency of telephone calls made to the researcher for clarification or feedback, and number of apologies made for non-response within the allocated time. Many respondents expressed their appreciation for having been given the opportunity to provide information on issues they believed were critical to the health of Canadians.

Discussion

The Delphi technique was useful for initiating discussion on Canadian Family Health Needs and obtaining collective subjective statements. Indeed, it was found to be a process that could contribute significantly to program and policy development. However, there is still reluctance on the part of many people working with program development and policy formulation to accept the findings of the Delphi approach, as compared to other more quantitative survey methods, even when scientific rigor, validity and reliability can be demonstrated. Having the study approved by Statistics Canada was helpful, but there was still considerable hesitancy to use the results explicitly to develop family health policy and programs.

Although providing accurate data bases from systematic nursing research is one of the major strategies through which nursing can shape public policy and health care policy, nurses must also develop strategies to assist with the interpretation and assessment of the research methods and findings. Shaping health policy at various levels, including the practice environment and the health care system, requires that nurse-researchers become familiar with the policy process, timing of decisions, the types of information used and the format of presentations that will maximize the use of their research (Hinshaw, 1988). *That is our challenge.*

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RÉSUMÉ

Vers un consensus sur les besoins des familles canadiennes en matière de santé: Une étape dans la formulation d'une politique

Certes, la formulation d'une politique devrait idéalement être fondée, du moins en partie, sur les résultats de recherches, mais cela n'est pas toujours possible. Cet article décrit l'un des rares cas où des recherches ont fait partie intégrante du processus préparatoire à la formulation d'une politique et d'un programme. En utilisant le processus Delphi, nous avons commencé à cerner les besoins sanitaires des familles canadiennes, dans l'optique des familles, des pourvoyeurs de soins et des services communautaires à caractère familial. Trois communautés dans chacune des provinces et territoires canadiens ont été échantillonnées au cours des trois phases du processus, qui a permis d'obtenir un taux de réponse supérieur à 50 %. Une équipe de chercheurs a été constituée pour veiller au respect des conditions de recherche délicates du processus Delphi. L'analyse de ce processus comme moyen d'obtenir des données en vue de la formulation de politiques et de programmes indique que les avantages du processus l'emportent sur ses inconvénients, et qu'il est possible de dégager un consensus et de définir des priorités entre les familles, les pourvoyeurs de soins et les organismes.

Canadian Bioethics Society
2nd Annual Meeting

Date:

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Theme:

"Autonomy, Donation and Sharing as Issues in Bioethics"

Place:

Chateau Frontenac, Quebec City, Quebec

Coordinator:

Harry Grantham, President of the 1990 meeting

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Société Canadienne de Bioéthique
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Date:

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Theme:

"Autonomie, Don et Partage en Bioéthique"

Endroit:

Château Frontenac, Québec, Québec

Responsable:

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