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GERIATRIC CONTINUING MEDICAL EDUCATION: COMMUNITY NEEDS AND PHYSICIAN PRIORITIES

by

Lauretta Rose Marie Pereles

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Geriatric Continuing Medical Education: Community Needs and Physician Priorities

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The undersigned certify that they have read, and recommended to the Faculty of Graduate Studies for acceptance, a thesis entitled "Geriatric Continuing Medical Education: Community Needs and Physician Priorities" submitted by Lauretta Rose Marie Pereles in partial fulfillment of the requirements for the degree of Master of Science.

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ABSTRACT

Traditionally physicians' continuing medical education programs in geriatrics have been developed by physicians based on their own perceived needs. The community that receives the medical care is seldom included in the process. In a two phase study the community perceptions of physician needs for education in geriatrics and physicians' responses to these perceived needs were determined.

A community needs assessment that included a mail survey of 25 key informants and 32 patient interviews from randomly selected physician practices was conducted. The top ten areas in which the community perceived that physicians required education were: communication, time management, ageism, medication, providing continuity of care, mental health problems, medical management of complicated cases, knowledge of community resources, health promotion and compassion. The community, particularly patients, was more concerned about the process by which care was delivered rather than the content of the care.

In the second phase of the study 30 physicians were interviewed about their response to the educational needs identified by the community. They ranked these needs with respect to their own learning priorities. There were areas of concordance and discordance about the identified needs. Physicians agreed with community informants about the need for more education about medication for the elderly, medical management and mental health issues. Physicians did not perceive pressing needs for education regarding communication skills with patients, compassion for patients or health

promotion. Physicians identified many barriers to meeting the needs identified by the community. Among the most notable obstacles were inadequate time, inadequate remuneration, and lack of accessible community resources.

The results of this study provide a challenge for CME to help physicians recognize the community's needs and design programs that will address them.

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Geriatric Continuing Medical Education: Community Needs and Physician Priorities

1.0 Introduction

The importance of continuing medical education (CME) is well recognized by physicians and educators. CME helps physicians to keep abreast of the ever-changing practice of medicine. With the aging of the population and new developments in knowledge and treatments for the elderly, geriatrics has become a major focus of CME across the country. The effectiveness of CME programs to meet educational needs in geriatrics will depend on adequately constructed programs in the area.

Despite the established value of CME in physicians' professional lives, its effectiveness in improving patient care and outcomes has not been consistently demonstrated. One of the reasons for the lack of effectiveness of CME may be inadequate assessments of physician needs in the development of CME programs. CME may not be addressing important educational needs.

To date most of the CME needs assessments have consisted of needs identified by physicians for themselves. Physicians' educational needs as perceived by the professional health community and patients have not been well delineated. Direct community and patient input into CME in geriatrics may provide valuable information for program planners and ensure that programs are more responsive to the community and more useful for physicians.

2.0 Objective

A two-phase study will describe physicians' educational needs in geriatrics as perceived by the community and physicians' responses to these identified needs. In phase one, community needs will be determined by patient interviews and by a survey of key community informants. Needs will be analyzed and prioritized. In phase two, physicians will be asked to evaluate the importance and relevance of the educational needs identified by the community. Where community and physicians' priorities are divergent, reasons for the differences will be explored. The results of this will be used for the planning of future CME programs in geriatrics.

3.0 Review of the existing literature

3.1 Needs and Needs Assessment

A need can be defined as "whatever is required to maintain something at a satisfactory or acceptable level" (Scriven, 1982). A need must be differentiated from a "want", which is something that is desired, irrespective of the actual need for it. Needs are seldom absolute, as inherent in their determination are the values of the individual or the society. The relative nature of needs, particularly when applied to the health care system, is important to appreciate. An optimal method to determine needs may be achieved by a consensus of various perspectives.

A needs assessment can be defined as " a process where a human service agency collects information about its potential users and then, based on that information, devises new programs or revises existing programs" (Bell, Sundel, Aponte, Murrell & Lin, 1983). Three historical forces have driven the development of needs assessments: the need for accurate data for decision making; the demand that programs be responsive to their recipients and not just the program planners; and the demand for accountability. Accountability (usually to a third party payer such as the government) implies that the resources allocated to a program are being used appropriately and not wasted (Bell et al., 1983). Thus, a needs assessment is an integral part of health care planning and program development. It is usually required before any new program can be initiated.

3.2 Methods of needs assessment

A needs assessment for any health service program can be achieved by a variety of methods: 1) surveying stakeholders; 2) analyzing health

indicators and utilization data; 3) convening focus groups of stakeholders and expert panels (McKillip, 1987), or 4) combinations of the above. Each of these methods will be described briefly below. A later section of this chapter will appraise the use of these methods in the determination of needs for continuing medical education in geriatrics.

3.2.1 Survey of stakeholders.

Surveys are commonly used in the needs assessment process. They can involve clients or users of services, providers of services or members of the community at large who have an interest in the services that are provided. Surveys are an effective method of gathering large amounts of information and, if executed properly, can provide information that is representative of the needs of the surveyed population.

Client surveys can be used to assess the perceived needs of service users. Direct and indirect users of services can be considered clients. An assumption in this approach is that the client can identify his/her own needs. Unfortunately, the needs of potential clients can not be assessed by this method. Needs of clients can also be identified from surveys of individuals working closely with clients or providing services to them (key informants) (McKillip, 1987).

Key informants are individuals who possess special knowledge about a target group, and can often provide information that may not be available in published sources. The use of key informants can add a dimension of objectivity to client surveys. While better informed than the public, their knowledge may be limited to their area of expertise. Key informants also tend to over estimate the magnitude of the need (McKillip, 1987). The use of multiple informants is necessary to obtain trustworthy data. Three to five

informants from each area of expertise is considered an adequate number (Sudman & Bradburn, 1983).

Surveys can be conducted by mail, telephone, or personal interview. Mail surveys are the least expensive method. They are limited by the literacy level of the respondents, the lack of the ability to explore and clarify responses, the lack of verification of respondents' identities and low response rates. Usually closed-ended questions are used; thus, if the questions are not understood by the respondents or if the right questions are not asked, the quality of the information that is obtained can be poor (Sudman & Bradburn 1983).

Telephone interviews allow direct contact with subjects and more exploratory interviews. Respondents will usually tolerate a longer questionnaire administered over the telephone or in-person than administered by mail. In telephone interviews, the identity of the respondents can not be verified; however, this provides anonymity for respondents. The disadvantages of this method are the need for trained interviewers to avoid bias and fairly high refusal rates (Dillman, 1978).

In-person interviews are the most expensive survey method. Trained personnel are required for interviewing and more time is usually required to complete the survey. This is offset by the fact that open-ended questions can be used and better qualitative information can be obtained. This is an important consideration in studies of the elderly who prefer to give narrative responses rather than to respond to multiple choice questions (Jobe & Mingay, 1990). In addition, face to face interviews of older persons yield a better response rate than telephone surveys; thirty minutes is usually the maximum interview length that elderly patients can tolerate (Herzog, Rodger & Kulka, 1983; Kelsey et al., 1989).

Clear conceptualization and operationalization of the issues are required in any survey. Asking questions in different ways and with different formats can improve the reliability and validity of responses (Sudman and Bradburn, 1983).

Crucial to survey work is adequate sampling. Random sampling is recommended to limit bias in general surveys. Purposive sampling is often used in key informant surveys to ensure that all important viewpoints are represented. Crude calculation of sample size can be made for questionnaires that have binomial or continous numerical responses. Sample size can be based on the desired degree of precision of the estimate of the response or on the desired effect size. Often the final choice of sample size is tempered by costs. Consequently, it is common practice to survey 5-10% of a population. Qualitative and exploratory studies usually require sampling until conceptual saturation is obtained (Strauss & Corbin 1990) and this is often achieved with 20-30 subjects.

3.2.2 Community health indices and utilization data.

Epidemiological studies and health indicators can provide data about the prevalence of disease and the burden of need. Secondary sources of information such as statistics and previous studies may be readily and inexpensively available. Large scale investigative epidemiological surveys can determine a population's needs but are usually expensive and time-consuming undertakings. These sources and surveys may only identify needs without necessarily determining whether the needs are being adequately met or how they may be met (Dunham, 1983).

Health utilization data can be incorporated into needs assessments. The demand for services and the presence of waiting lists may reflect needs.

The use of this data assumes that services are known or accessible to clients and that those awaiting or demanding services truly need them.

3.2.3 Structured groups.

A variety of group techniques have been used in the needs assessment process. The simplest is the expert panel. It is easy to convene but it may provide a narrow and biased perspective. Experts often overestimate the problems facing target populations and underestimate the ability of target populations to solve them (McKillip, 1987). Focus group, Delphi group and nominal group techniques using clients or stakeholders are useful in generating and evaluating ideas as well as uncovering unmet needs. The use of group techniques adds a qualitative dimension to a needs assessment. The structured format of the nominal group, by using equal participation and discussion can develop a consensus about the priority of needs.

3.2.4 Maximizing needs assessments.

Each of the approaches described above has limitations and strengths; the combined use of several methods provides a more comprehensive and accurate assessment (Cook & Campbell, 1979; McKillip, 1987). Moreover, for a needs assessment to be useful, it must not merely list needs; it must prioritize the needs. An exploration of the factors that underlie needs is required to effect solutions. Needs assessors must be aware of factors that will impede and facilitate the use of their needs assessment. Finally, there must be the political will to use the needs assessment to prioritize or redesign programs. Identified needs must fall under the mandate of the existing program and there must be resources available to meet them (Sharpek, 1975).

3.3 Continuing Medical Education (CME): Current Trends

The primary goal of continuing medical education is to ensure that graduate physicians can keep abreast with new and current therapeutic practices in medicine and to aid them in incorporating these changes into their clinical practice. Over the years CME has evolved from small classroom lectures with traveling lecturers to the recent development of self assessment and self directed learning programs (Manning, Clintworth & Sinopoli, 1987; Manning & Petit, 1987; Richards, 1984; Tupper, 1984). CME is now compulsory for many medical specialties and has become a small growth industry, particularly in the USA (Wentz, Gannon, Osteen, Dewitt & Balwin, 1989). Hand in hand with the growth of CME have been genuine concerns about its effectiveness (Haynes, Davis, McKibbon & Tugwell, 1984; McLaughlin & Donaldson, 1991).

Most physicians will attest to the value of CME. In a survey of British physicians, 91% felt that the quality of care that they provided to patients was dependent on their professional development. Eighty-two percent felt that they needed to attend CME to learn how to be more effective practitioners (Forrest, 1989). However, if the true effectiveness of CME is its ability to improve patient outcomes through changes in physician behavior, only a few studies have objectively shown this (Davis, Thomson, Oxman & Haynes, 1992; Haynes et al 1984). It is probably too simplistic to expect CME alone to change patient outcomes. The improvement in patient outcomes is multifactorial. It involves not only the physician and the patient, but also the health care system and society. The mere identification and correction of knowledge deficits and the resulting change in physician

behavior may not be enough to change patient outcomes. However they are the first steps in the process (McLaughlin & Donaldson,1991; Tupper, 1987).

In response to the criticisms about the effectiveness of CME, CME programs have become more practice-based and problem-oriented. This is based on the premise that it is the contact with patients that generates problems and is a stimulus for CME (Fox, Mazmanian & Putnam, 1989; Krantrowitz, 1991). It is currently thought that the most effective learning experiences for physicians are self directed, driven by a specific need to know that is often related, in turn, to the needs of the patient or practice (Adelson, Watkins & Caplan, 1985; Stein, 1981; Wentz, 1990). The inclusion of patients' needs in the planning of CME can make CME more effective (Muir, 1986; Stein, 1981). Continued efforts to focus CME around patients and their problems should ultimately contribute to improved outcomes.

3.4 Needs Assessment in CME: Whose needs?

An educational need is conceptualized as a gap between the learner's existing knowledge, attitudes or skills and a desirable standard (Mazmanian, 1980). Needs assessment is thought to be a fundamental and initiating step for developing CME in a multidimensional health care system (Bertram & Brooks-Bertram, 1977; Tupper, 1984; Watts, 1990). It was identified as the number one priority in a 1981 survey of medical education program directors (Ribble, Burkett & Ecovitz, 1981). Some authors attribute the lack of effectiveness of CME to the failure to adequately identify the learning needs of the practitioners and the health needs of their patients (Bertram et al., 1977).

A variety of methods have been employed in assessing needs for CME. These range from client (physician) and key informant surveys, the analysis

of health indicators and disease prevalence, medical audits and focus groups of stakeholders or experts. Before initiating a needs assessment, it is important to determine the target population. This may not be completely obvious in CME. While physicians are clearly the users of CME, it is the patients and the community at large who clearly benefit from CME.

3.4.1 Physicians needs.

For the most part, CME providers have concentrated on identifying educational needs from physicians' perspectives of their own needs. It is common practice for a CME curriculum to be developed by a small planning committee, usually composed of medical specialists and interested physicians from the community. In designing programs, the committee members draw on their own experience, feedback from previous courses, as well as direct requests to the CME department (Adelson et al., 1985). Occasionally, formal needs assessments using mail or telephone surveys or personal interviews of physicians are used. A limitation of this approach is that physicians, for a variety of reasons, may not identify all of their educational needs (Laxdal, 1982). Many physicians may not be aware of their own deficiencies. For others the identification of deficiencies may be threatening, exposing them to embarrassment and possible legal action (Manning et al., 1987).

3.4.2 Patients' Needs.

While needs identified by physicians are important in developing effective CME, patients' needs cannot be overlooked. The recognition of the patients' problems by the physician is the first step in the care process. Problems arising from the physician-patient encounter are thought to reflect

the true learning needs of physicians (Jennett, Lockyer & Parboosingh, 1989; Stein, 1981).

Patient needs can be identified by various means. The prevalence of disease, particularly underdiagnosed and undertreated disease, can reflect health needs and point to educational needs. This information may be available from epidemiological studies and medical audits. Needs can also be identified from surveys of patients, key informants and utilization data.

While patients are often asked about their specific health needs, they have not been asked about how these health needs could be better met through changes in physician education. There are several reasons for this. Patient needs may reflect "wants or demands" rather than true needs. On an individual level, stated needs may directly reflect the patient 's own medical problems. Whether patients actually can judge the adequacy of the health care provided by physicians or the adequacy of physicians' education has been questioned (Ward, 1988). While there is validity in this concern, the patient experience is still an important perspective from which to view the services provided; as patients' opinions are an independent measure of quality.

The patient's perspective can provide valuable insights and has resulted in new programs to improve the quality of care (Legge & Hutton, 1981). Also, physicians value patients' perceptions. In a British survey of 637 physicians, 58.7% found patients' perceptions relevant, and 27% highly relevant for learning (Forrest et al., 1989). With the increasing consumer scrutiny of the medical profession the incorporation of patient information would be valuable in planning CME (Gray, 1986). Not to enlist the support and cooperation of patients in continuing medical education is thought to be short sighted (Ward, 1988).

3.5 Geriatric CME: A Perceived Need

Geriatrics has only been a recognized subspecialty in North America in the last three decades. Most training programs did not, and some still do not, contain specific curriculum devoted to the medical care of the elderly. There are cohorts of graduated physicians without specific training in geriatrics. The needs of these physicians have been addressed by a variety of strategies that will discussed below.

3.5.1 Expert Opinion.

Before a need can be determined, a satisfactory or acceptable level of care or service must be identified (Scriven 1975). Discrepancies between these standards and actual physician practice represent needs. In response to the growing recognition of the special needs of the elderly, standards or expectations of competency in geriatrics have been developed by authorities in the area (Lynn, 1988, Muller, Fahs & Schechter, 1989). Both the American College of Physicians (1988) and the American Geriatric Society (1989) have published position papers. Physicians caring for geriatric patients are expected to be able to perform a comprehensive assessment of patient functional status, (mental, physical and psychosocial) besides assessing and treating their various medical problems. Competency in dealing with impaired cognition, senses, mobility, poor nutrition, poor health habits, polypharmacy, incontinence, psychosocial issues and depression is required. Physicians are also expected to coordinate and to work effectively with other members of the health care team (therapists, dietitians, social workers, nurses) in the hospital and in the community (Rubenstein, Calkins, Greenfield, Jette, Meenan & Nervins, 1988).

3.5.2 Physician surveys.

The need for additional education in geriatrics is recognized by individual physicians and the medical community at large. In an American survey, less than 50% of respondents felt that their current knowledge of geriatrics was adequate. Physicians rated their interest in further geriatric CME as 6.4 on scale of 1-10 (Perez, Mulligan & Meyers, 1991). Specific topics for future education have been identified by two recent physician needs assessment surveys: one in North Carolina and one in Calgary.

A random survey of 500 North Carolina physicians asked them to identify their most challenging geriatric problems and to rank their interest in 34 geriatric topics. The most frequently identified issues were dementia, multiple problems, depression, stroke, ethical issues, incontinence, drugs, family and social issues. Physicians were more concerned about management issues than diagnosis (Williams & Connolly, 1991).

In 1990 the office of CME at the University of Calgary conducted a physician needs assessment. Using a "snow ball" recruiting technique, in which four physicians involved in geriatrics identified four other physicians and these in turn identified four more, 48 family physicians with an interest in geriatrics were contacted. Forty-four of these completed a questionnaire and 38 participated in a structured interview to identify ten clinical problems in which they perceived a gap between their current methods of management and desired practice. The eight most frequently reported problems were: cognitive impairment; complex multi-problem patients; arthritis; mobility and falls; psychosocial problems; depression; urinary incontinence; and diabetes. Difficulty efficiently managing elderly patients in an office setting was a major concern. The interviews often revealed physicians' frustration or discomfort when dealing with geriatric problems: problems that they realized

required a multidisciplinary rather than simply a medical intervention and that were time consuming for the solo practitioner. Many physicians were not optimistic that formal CME could help them manage these problems (Gondocz, Meyers, Lockyer & Parboosingh, 1991).

3.5.3 Structured groups .

A broader perspective arose from the 1992 invitational workshop "A Continuing Medical Educational Strategy for the Care of the Elderly" sponsored by the CMA (Woollard, R., personal communication, April 28, 1992). This conference convened medical educators and community leaders with an interest and involvement in the health care of the elderly. A focus group technique was used. This workshop recommended the development of small group interdisciplinary case-based workshops to teach family physicians the following: comprehensive geriatric assessment using a multidisciplinary team; preventive health measures; risk assessment; and improved communication. Effective communication with the elderly, the use of medication and the diagnosis and the continuity of care of the demented patient were identified as specific priorities for CME.

3.5.4 Epidemiological studies.

Surveys of the prevalence of specific diseases and disabilities in the community point to potential educational needs. As the population ages, physicians must be more skilled in the common conditions that affect the elderly. A Liverpool survey of 331 elderly residents revealed that the three most prevalent medical conditions were cardiovascular disease (49%), psychiatric disorders (43%) and orthopedic and mobility problems (23%) (Gosney, 1991). A recent Calgary mail survey found a 30% rate of

incontinence among community dwelling elderly. One third had not reported the problem to their physicians and only 36% reported having had any investigations for this problem (Higgins & Parboosingh, 1989). These results must be interpreted cautiously as the survey had a low response rate. Hospital survey studies show that dementia and malnutrition are often unrecognized by physicians (McCarthney, 1986, Mowe & Bohmer, 1991).

Psychosocial issues and functional disabilities are problems commonly identified in the elderly. An East London survey of the aged identified loneliness, depression, physical disability, housing and spiritual needs as important needs (Morris, 1987). Another large survey of fourteen hundred elderly in London found a high prevalence of dementia, depression and physical disability reinforcing the importance of these topics for CME (Harrison, Salva & Kafetz, 1990). A consideration in all these surveys or studies is the fact that the needs identified may be site specific and not generalizable to all locations. However, the repetition of study findings adds validity to them.

3.5.5 Medical and Service Audit.

Needs for geriatric education can also be inferred from medical audits (Legge et al., 1981). Sui, Leake and Brooke (1988) reviewed the quality of care received by 1,527 older patients in 15 university teaching hospitals. They found that the clinical problems of dementia, depression, incontinence, and osteoporosis were infrequently documented by the resident training staff and consequently under investigated and undertreated. Despite the increasing disability of the elderly, a survey of 28,265 ambulatory visits showed that diagnostic testing significantly declined for patients greater

than 75 years old (Radecki & Kane, 1988). This suggests a less aggressive approach in the management of their medical problems.

Potential community needs have been derived from analyzing telephone requests for assistance from the community received by a geriatric unit. The types of needs included the management of dementia and multiple problem patients, stroke management in the home, terminal illness, nursing home placement, alcohol abuse, incontinence and legal problems (Meiring, 1985).

3.6 Process

The process by which needs are met is also important. Patients have been consulted about their satisfaction with medical care. Instead of specific medical needs, accessibility and communication with physicians are identified as primary concerns (Steven & Douglas, 1988; Simpson, Buckman, Stewart, Maguire, Lipkin et al., 1991). Communication was listed as the number one priority in the CMA conference on the Health Care of the Elderly (Woollard, R., personal communication April 28, 1992). Part of the failure to improve patient outcomes in an ambulatory setting may be related to physician-patient interaction particularly with respect to communication and compliance. CME programs have not traditionally focused on issues of how to effectively communicate, how to engage patients in their treatments and how to improve compliance.

3.7 Assumptions in Needs Assessment

An assumption in needs assessment is that the target group can accurately identify its own needs (McKillip, 1987). This may not be necessarily true in elderly patients. There is a considerable degree of under

reporting of illness among the elderly (Bowling, 1989). Many problems encountered in the elderly may not be perceived as health needs but as a part of normal aging (i.e., incontinence, arthritis, visual and hearing problems). There may also be the perception that physicians cannot help with identified problems (i.e., depression, alcohol problems, retirement problems, etc.). While some of these problems may lie outside the expertise of the physician, the physician is the first point of contact with the health care system. Physicians must identify these problems and direct patients to the appropriate resources or other health care providers.

3.8 Conclusion from the Literature

In the literature a variety of needs have been identified which are important for planning physician education in geriatrics. Topics have been identified by medical authorities and physicians themselves. These tend to focus on specific disease entities and management issues such as dementia, incontinence, multi-problem patients and psychosocial problems. Community health surveys, health indicators and medical audits affirm some needs (psychosocial problems, dementia) and identify others (i.e., malnutrition, physical disability and depression).

CME program development has been based primarily on physicians' perceptions of their own needs. To augment existing research, it would be valuable to perform a community needs assessment that directly asks patients and key community informants what they perceive to be the needs in geriatric education and to explore some of the underlying factors that are perceived to contribute to these educational deficiencies. The use of multiple informants with different perspectives will improve the understanding of the issues.

Survey methods are an effective and inexpensive method of determining needs and are often used in the needs assessment process. Mail surveys are the least expensive but may not be suitable for certain populations such as the elderly or populations with poor response rates such as physicians. The amount of qualitative information is increased with the use of personal interviews. The method chosen is often a compromise between cost and time versus quality of information.

Local studies are particularly important for CME planning. Community needs will vary due to the differences in patterns of practice and availability of CME resources for physicians. To be responsive and effective, each CME program must identify its own needs and priorities.

The identification of community needs is just the first step. In the present educational system physicians plan their own CME and show their interest and needs by the courses they choose to attend and the resource materials they use. From a planning perspective, it will be important to determine whether physicians recognize and concur with community needs and to examine the reasons behind obvious discrepancies. This ultimately could lead to some solutions for resolving these needs.

This study will assess the community's perception of educational needs in geriatrics by surveying community informants and patients. Needs will be categorized and prioritized. These needs will then be presented to physicians for their responses.

4.0 Methods

The study was conducted in two phases. The first phase was a community needs assessment, while the second phase was a series of interviews with physicians to determine their response to the community needs survey.

4.1 Community Needs Assessment

Community needs for physician education in geriatrics were determined by administering questionnaires to key informants and patients of family physicians. Community informants were surveyed by mail, while personal interviews were conducted with patients.

4.1.1 Sampling of community informants.

Community informants were defined as individuals who had some special knowledge of the health needs of the elderly. These were individuals who worked with the elderly at a community level or provided physical, mental health, or psycho-social services to the elderly. Informants were sampled from two groups: the first group included the senior managers of programs providing service to the elderly and the second group included home care and community health nurses.

4.1.2 Selection of program managers.

A sampling frame of program managers was compiled from the following sources: Programs for Seniors - Seniors Advisory Council for Alberta; the key informant list for the development of the Southern Alberta Regional Geriatric Program; the Community Advisory Committee for the Southern Alberta Regional Geriatric Program and the Retired Senior Citizens' Programs and Services of the City of Calgary. At least five informants were chosen from each health dimension (social, physical and

psycho-social). Two informants who provided educational resources for the elderly were also included. The final list included seventeen community leaders or experts in geriatrics. (Table 1)

4.1.3 Selection of nurses.

Nurses were included as informants because of their unique position in the care of the elderly in the community. They are exposed to the needs of the elderly and interact directly with physicians. Nurses were randomly selected from all the nurses employed as Community Health and Home Care nurses employed by Calgary Health Services. The Directors of Nursing for the Community Health and Home Care programs within Calgary Health Services, the Regional Public Health Authority, were contacted by telephone and asked to cooperate with the study. After the proposal was approved by their research committee, the Nursing Directors compiled a sample frame of 165 nurses from which five community health nurses and five home care nurses were selected using random numbers generated from a computer. The Director of Home Care mailed the survey to the Home Care nurses. The investigator mailed the survey to the Community Health nurses as the Director of Community Health nurses was away during the study period. Questionnaires were coded by number. After one month a reminder was sent to non-respondents.

4.1.4 Questionnaire development.

The questionnaire consisted of two parts: an open-ended question section and a rating scale. In the open-ended section, informants listed five areas in which they perceived that physicians needed education. With respect to each identified need the respondents were asked whether deficiencies were in problem identification, management and treatment,

patient education or in physician communication. Informants were asked to rank the five identified needs from one (the most important), to five (the least important). In the second section of the questionnaire, informants were asked to rate as adequate or inadequate physician competencies in selected geriatric topics. This list was compiled from a review of the literature. To minimize overstatement of knowledge a "don't know" category was provided.

Before its usage, experts in nursing, CME and health care research (two nurse researchers, a geriatric nurse educator, a geriatrician, a clinical pharmacist and a geriatric CME research associate) were asked to critique the questionnaire. They completed the questionnaire independently, assessed the appropriateness of the questions and instructions, identified problems with the format and gauged the length of time required to complete the questionnaire. Respondents were asked to state to the researcher what they thought the questions meant (Belson 1968). Subsequently, the questionnaire was administered to them in the form of a structured interview, to assess if there were major differences in the type of responses between completing the questionnaire alone and in an interview situation. On the basis of their feedback, the wording of the questions and the layout of the questionnaire were modified. (Appendix A)

4.1.5 Data collection.

The questionnaire was mailed to the informants with a covering letter that explained the purpose of the study. Informants who had not replied 21 days after the questionnaire was mailed were sent a reminder letter and another questionnaire.

4.2 Patient survey

The second component of the community needs assessment was a survey of patients using structured interviews.

4.2.1 Patient recruitment.

Patients were recruited from randomly selected family physicians in Airdrie and Calgary. A letter explaining the purpose of the study was sent to each physician. Seven to ten days after the letter was mailed the physicians were contacted by telephone. Using a standard telephone interview format, they were asked if they had received the letter and if they were going to participate in the study.

To determine if there were differences between physicians who participated and those who did not, physicians who did not participate in the study were asked the following questions: the number of years they had been in practice; their age; percentage of their practice that was geriatrics; and whether they had patients in nursing homes or had hospital privileges.

Physicians who agreed to participate in the study were requested to randomly select two of their geriatric patients and send them a recruitment package provided by the investigator. This package contained a recruitment letter and a self addressed stamped return card. (Appendix D for procedure for random selection of patients)

Interested patients contacted the researcher to arrange a home visit by returning the stamped interview card or calling the researcher. (Appendix E) Physicians were asked to exclude patients who could not give an informed consent (i.e., demented patients and acutely ill patients).

4.2.2 Pilot study Airdrie.

Study procedures were assessed in a pilot study prior to proceeding with the main study. Five of the eight family physicians in Airdrie were randomly selected for the pilot study and sent recruitment packages. They were contacted by telephone two weeks later. Although the physicians expressed no difficulties with the procedures, no interview cards were returned by patients. To improve patient recruitment, the recruiting letter was changed. It advised patients to discuss the study with their family doctor. Also, in the follow-up telephone contact physicians were asked to encourage patients to participate in the study the next time they saw them in the office.

4.2.3 Calgary patient recruitment.

Sixty family physicians from Calgary (10% of Calgary family physicians) were randomly selected from the 1992 Calgary Physician Directory. This represented a 10% sample size. Every two weeks ten physicians were sent recruitment letters and were contacted by telephone the following week.

Only two patients were recruited from the first ten physicians. Physicians, when contacted, complained about the complexity of randomly choosing patients. Subsequently recruiting procedures were simplified and made more personal. Physicians were asked to personally recruit the next two geriatric patients that they saw in their office. They were asked to explain the study to the patients and ask them to participate. Patients subsequently mailed reply cards to the investigator.

A month after the initial phone contact, physicians who had agreed to participate were sent a reminder and additional patient recruitment letters.

4.2.4 Patient interview questionnaire development.

The patient interview questionnaire was similar to the key informant survey. Patients were asked to identify five needs for physician education in geriatrics. They ranked these from most important to least important. They also rated as adequate, or inadequate the same list of geriatric topics that were used in the key informant survey. At the end of the interview patients were asked for the following information: age, sex, number of physicians contacted in the last five years, and a list of present medical conditions.

4.2.4.1 Pre-testing.

Six consecutive geriatric patients from the investigator's own practice were used to pretest the patient questionnaire. Minor modifications to the wording and prompts were added to make the questions clear in meaning. (Appendix B)

4.2.5 Quality assurance.

A research assistant who had extensive experience interviewing patients was hired for the study. Prior to commencing the study the research assistant was trained specifically for this study.

During a one hour session, an interview training guide developed for a previous study conducted by the University of Calgary was reviewed with the research assistant. Ethical issues, confidentiality, procedures for interviewing and special considerations when interviewing the elderly were discussed.

The research assistant practiced administering the questionnaire with the researcher until she was familiar with the questions and likely

responses. The investigator conducted the first five interviews with the research assistant and every 8th interview thereafter to ensure the consistency and quality of the interviews.

4.2.6 Study procedure.

Patients were interviewed in their homes for their convenience and to provide confidentiality. Interviews lasted no longer than 30 minutes. Interviews were conducted by the investigator and the research assistant. If permission was given, interviews were tape recorded.

4.2.7 Data analysis.

Frequencies were calculated for descriptive variables. Responses from the questionnaires and interviews were transcribed and grouped into major categories of educational needs. Each educational need was given a relative importance score by summing the ranked scores in that category. A response ranked as first was given a score of five, a response ranked as fifth was given a score of one. If more than five needs were listed, the additional needs were given scores of 0.5 each.

The frequencies of the rating of the list of geriatric educational topics were tabulated. Responses were rated as adequate, inadequate or unknown.

4.3. Physicians' response

4.3.1 Questionnaire development.

While the community informants and the patients had identified some similar needs, the priorities were quite different. A list of ten community needs (Table 2) was constructed by combining the five top needs from each group. Communication and medication appeared on both lists. Some of the "needs" could be perceived as criticisms of physicians' behaviors rather than educational needs. Consequently, these items were reframed to reflect potential educational needs. Each need was typed on an individual card.

4.3.2 Physicians' interview pretest.

The interview questionnaire was pre-tested on five physicians who had geriatric practices and who volunteered to help the investigator. The questionnaire was acceptable to them in format and length. (Appendix C)

4.3.3 Physicians' interviews.

The thirty-one physicians who participated in the first phase of the study (patient recruitment) were contacted and 30 agreed to be interviewed. Interviews lasted 30 minutes and were tape recorded if possible.

During the interviews physicians were presented with the ten community needs in random order. They were asked to rate each need on a scale of one to five as to its urgency in terms of an educational need for them personally. They were then asked to comment about the need; whether they had participated in any CME in this area in the past two years and whether they intended to participate in any in the future. CME was broadly defined to include courses, rounds, self assessment or reading. They were also asked if they perceived any barriers to meeting these needs and to discuss the

barriers. Finally they were asked to rank the ten community needs in terms of their own learning priorities.

4.3.4 Data analysis.

Frequencies were calculated for descriptive variables. Median scores were calculated for the rating scale. To establish an overall ranking for the ten needs, the ranked scores in each category were summed. First ranked needs were given a score of ten, least ranked needs a score of one. A total score for each need was determined by adding the individual scores. The urgency of each need was correlated with future intention to participate in CME in the area using a Spearmans' Correlation Coefficient. Physicians' comments about the community needs and obstacles to meeting them were summarized.

4.4 Ethical considerations

All information obtained in questionnaires and interviews was treated in a confidential manner. A master list of physicians' and patients' names was compiled for the interviews and contact purposes and kept in a separate locked file. All interview forms and data entries were identified only by number. The study was reviewed and approved by the Conjoint Ethics Committee of the University of Calgary.

5.0 Results

5.1 Educational needs identified by community informants

5.1.1 Response and respondents.

Questionnaires were completed by twenty five of twenty seven community informants. The average number of years that community informants had worked with the elderly was 12 (range 2-35). Twenty stated that they worked with the elderly in a health capacity, five in an educational capacity and seven in a social capacity. Seven respondents worked in more than one capacity.

5.1.2 Needs analysis.

The data from the informants and the community nurses were initially analyzed separately. However responses were so similar that data were combined and analyzed together. The educational needs identified by community informants are listed in Table 3. They are listed in order of their relative importance.

5.1.3 Comments by community informants.

Many informants made specific comments on the needs that they identified. The contents of the comments are summarized below. The actual number of respondents making the comments are in brackets.

Medication. Appropriate medication management was the most frequent and important CME need identified. Physicians' knowledge about the adjustment of dosage with aging, potential interactions and side effects are considered especially important (n=9). There is a perception that medications are over prescribed (n=7). Physicians may not be keeping up to

date about new medications (n=3). In addition, there is a need for physicians to educate patients about the purpose of their medication and their potential side effects and drug interactions (n=5). Physicians' lack of awareness of medication obtained from other sources is a problem {i.e., other doctors (n=2) and over the counter drugs (n=2)}.

Mental health problems. The treatment and assessment of emotional, cognitive and behavioral problems will help the elderly and their families have a meaningful life and relationships. Mental health problems, particularly depression and loneliness, are often overlooked and undertreated (n=7). Physical complaints are not recognized as a mask for depression (n=1). Depression and delirium must be differentiated and treated appropriately (n=2). It is important to educate the family and other caregivers to recognize and deal with these problems (n=3). Medication is offered instead of counseling (n=1). Insufficient time is allotted for this type of concern (n=4).

Medical management. Physicians need more skills to treat medically complicated cases (n=2). They need to weigh the risk versus the benefits of various treatments (n=1) and offer non-medication alternatives (n=1). Acute care facilities, and geriatric assessment and rehabilitation services should be used appropriately (n=2). Physicians need to teach patients how to live with chronic disease (n=1). Specific geriatric conditions should be recognized and treated (n=1).

Community resources. Physicians need to be aware of the variety of community resources for the elderly (n=8). Often they do not recognize that these supports are required (n=2). Physicians must connect patients and

their families with the appropriate resources before there is a crisis in care or caregiver burn out (n=1). Appropriate referrals and team collaboration are needed (n=3). Physicians should advocate for more community resources for the elderly, for example, more day hospitals (n=1).

Health promotion. There needs to be more emphasis on health promotion, particularly the importance of adequate nutrition and physical fitness (n=7). Education about the prevention of diseases such as heart disease, osteoporosis and falls is required (n=3). A shift to a wellness model was suggested (n=2).

Communication. Improved communication with elderly patients is important. Insufficient time is given to their concerns (n=4). Their concerns are not validated and questions are not encouraged (n=3).

Dementia. There are problems with the diagnosis and the treatment of dementia. Often the diagnosis is missed or the patient is labeled "demented" without any consideration of other diagnoses (n=2). Medical and behavioral problems in demented patients are poorly managed (n=2). There is a tendency to attribute all the symptoms to dementia (n=1). Caregivers as well as the patients must be educated and be linked to the appropriate community resources (n=3).

Attitudes. There is a therapeutic nihilism regarding the treatment of many of the problems of the elderly (n=2). Many problems are attributed to age rather than pathology. Consequently, there is a lack of treatment and investigation (n=4). Older patients complained to informants that their doctors neither take adequate time to listen to their complaints nor take

them seriously (n=2). Physicians need to respect their patients and involve them in decisions about their treatment (n=2).

Psychosocial assessment. Physicians need to be aware of patients' living situations and their relationships (n=2). Physicians need to be able to assess the family unit as a whole and its impact on the caregivers as well as the patient (n=4).

Geriatric assessment. It is important to realize the role of functional and mental status assessment in the elderly (n=2) and to make use of existing resources in the assessment process (n=2).

Palliative care. Physicians need education in bereavement counseling. They are often uncomfortable with issues surrounding death and dying (n=2). Insufficient time is allotted to discuss issues with both the patients and their families (n=4). Pain management is often inadequate (n=2).

Rehabilitation. There needs to be a better understanding of the role of rehabilitation after a serious illness or stroke, with an appreciation of the time frame and the contribution of the individual team members (n=2). This must also be communicated to patients (n=1).

Team care. For seniors living in the community, other team players in health and social services are critical (n=3). Physicians do not work and communicate well with other team members (n=4). They often lack respect for other team members and are unaware of their role in the patients' care (n=2).

The aging process. Some informants felt there was a lack of understanding of the aging process (n=2). This included the sociological and physiological changes as well as the diseases associated with aging (n=3).

Substance abuse. Physicians are not aware of the high number of seniors who abuse alcohol (n=2). They need to "ask the question" (n=2).

Incontinence. Physicians and patients still consider incontinence as part of normal aging (n=2). "Incontinence needs to come out of the closet." Patients are not educated about treatment options (n=2).

Elder abuse. Physicians are not aware of the magnitude of the problem. They miss the signs and symptoms of abuse (n=2). Seniors are often afraid to discuss the issue (n=2). This is in part due to a lack of a trusting relationship (n=1). In addition physicians may not be aware of existing community resources for elder abuse (n=1).

Falls. Falls should be regarded as an important symptom. Medications and unrecognized physical disabilities are often causes of falls (n=1). As physicians do not have the time or resources to assess the environmental hazards of patients' homes, occupational therapists should be used (n=2).

Sexuality. There is a lack of physician knowledge and patient education about sexuality (n=2). Physicians are not identifying sexual problems (n=2).

Diabetes. Physicians need to reinforce the teaching of the diabetic day care and the community nurses (n=1).

5.1.4 Rating of geriatric topics.

Twenty four of the 25 respondents completed the rating scales of physicians' educational needs in specific geriatric topics. Informants rated each topic with respect to physician knowledge, management and attitude. The frequencies of responses were tabulated (Table 4). In most cases, respondents rated physicians' education in these topics as inadequate. An exception was the area of stroke.

Many informants were not knowledgeable about physicians needs in specific subjects. Thirty percent did not know about educational needs for sexual problems and elder abuse; over 20% did not know about needs in the area of falls or death and dying. Overall, respondents were less certain about physicians' attitudes than their management or knowledge.

5.2 Educational needs identified by patients

5.2.1 Response and respondents.

Thirty one of the sixty randomly selected physicians (52%) agreed to recruit patients for the study. The characteristics of participant and non-participant physicians are listed in Table 5. The commonest reason for refusal was lack of time or interest in the study. (Table 6)

Thirty-seven of a possible 62 patients returned the recruitment cards. Of these, three declined the interview and 34 agreed to be interviewed. However one patient changed her mind and another patient died before the interview date. This represents a 52% (32/61) response rate.

The average age of patients was 77.5 years (range 65-93 years). Eleven (34.4%) were male; 21 (65.6%) were female. The average number of doctors that patients had seen in the last five years was 4.7 (range 1-10).

5.2.2 Needs identified by the opened ended questionnaire.

Needs elicited from patients by the open ended questions are listed in Table 7 in order of importance score.

5.2.3 Rating of geriatric topics.

Patients also rated physicians' needs on the same list of geriatric topics as the community informants. These results are presented in Table 8. In six of the twelve subject areas over 60% of respondents stated that they did not know about physicians educational needs.

5.2.4 Comments by patients.

Patients made many comments about the needs that they identified and those presented on the rating scale. As these needs were sometimes the same (i.e., communication) the comments were summarized together.

Communication. There are several facets to this need. Patients wanted explanations about their disease and investigations, and the risks and benefits of treatment. These explanations should be clear, and in simple language (n=14). Furthermore, physicians need to check if patients have understood what was said (n=1). There is a perception that physicians are not really listening and answering the questions asked by patients (n=12). Patients also expect physicians to look beyond the surface when dealing with complaints (n=3) and to be honest when presenting results (n=3).

Time management. There were two related issues identified. The first was the excessive amount of time that patients were required to wait to be seen in the office (n=10). Sometimes this could be hours. There is a perception that physicians were overbooked and were often behind schedule. The second issue related to the first. Once in the office, patients felt rushed and that inadequate time was allotted for their complaints to be addressed (n=14). Two patients felt like they were on an assembly line.

Ageism. Many of the elderly felt that their complaints were just brushed off and attributed to their age (n=17). "Its just your age" they were told repeatedly (n=11).

Medication. The issues that were identified were: too many medications (n=11); prescribing medications that are too strong (n=5); prescribing

medication for every ailment (n=3); not explaining the purpose of medication (n=11); not warning about side effects and drug interactions (n=4); and not communicating with the pharmacist (n=3). Physicians are not aware of the other medications that patients may be taking (n=3).

Continuity and coordination of care. Patients expect both follow-up care and to be notified about the results of investigations (n=7). They expect to be attended by the same physician when they are admitted to hospital (n=3) and if they are referred, they expect communication to occur between these physicians (n=5). They do not want fragmented care.

Compassion. Some physicians appeared uncaring or lacking in compassion to the elderly (n=7). They felt the service that they received was impersonal (n=3). Some elderly felt that physicians do not attempt to understand their living and personal situations (n=3).

Home visits. Some patients felt that more home visits would be beneficial (n=7). Home visits would allow physicians to assess the patients' problems in context and have a better understanding of their living and family situation (n=3). This was particularly important for frail patients who were not well enough to go to a physician's office, but not sick enough to go to emergency (n=4). Some patients are better cared for in the home (n=1).

Community resources. Some physicians may not be aware of all the community resources available for the elderly (n=3). Other physicians do not inform patients of available resources (n=2). Conversely, patients may not tell physicians what they need (n=1). Two patients thought that if doctors were aware of resources, they would use them.

Functional disability. Specific assessment of memory (n=1), reading ability (n=1), balance (n=1), and ambulation (n=1) were mentioned.

Issues surrounding death. Physicians avoid serious discussions about the issue (n=4). Discussion about living wills and euthanasia is required (n=4). Families need to be prepared and assisted with the death of a member (n=2). There needs to be a spiritual dimension (n=2).

Specific diseases. Specific diseases were rarely mentioned. When a disease was mentioned, it was a disease with which patients had experienced some personal frustration. Diabetes, stroke, Parkinson's disease, manic-depressive disease, arthritis and hypertension were mentioned. Other issues that were mentioned were: dietary counseling; being a patient advocate; and familiarity with alternative or natural healing methods.

The following are specific comments made about topics from the rating scale that were not identified in the open ended questionnaire.

Depression. Many patients expressed ambivalent feelings about depression. They were not really sure what physicians could offer (n=7). Patients thought that some physicians missed the diagnosis of depression (n=3), while some patients hid it (n=1).

Sexual problems. There were a variety of different comments on this topic: "physicians don't ask" (n=3); "its up to patients to bring it up" (n=2); "physicians and seniors are too embarrassed" (n=1); "it is not as important when you are older" (n=1); and "are sexual problems understood at any age?"

Stroke. The perception of the need for education varied with different physicians and the degree of illness (n=5). Some patients would like to know the warning signs of stroke (n=2). Specialists and rehabilitation staff are perceived to be more knowledgeable in this area (n=3).

Alcohol abuse. This issue is often not addressed (n=3). There is denial of the problem by patients (n=3). Many felt there was not much that could be done in any event (n=4).

Dementia. Patients considered dementia to be an unknown and perplexing disease and it was important that physicians keep abreast of new information (n=5).

Incontinence. Physicians are not taking the problem seriously enough (n=4). They are not offering available treatments (n=2). The patient needs to bring the issue up in discussion (n=1).

Falls. Patients felt falls were serious (n=5) but wondered what physicians could do about them (n=5).

Elder abuse. Patients had mixed views about abuse. They felt it was their responsibility to bring it up (n=2) and the doctor's responsibility to ask (n=1). Others wondered what doctors would do in a case of abuse (n=3). Two patients felt that it is a social not a medical issue.

5.3 Physicians' response to community needs.

5.3.1 Rating and ranking scales.

Thirty of the original thirty one physicians were interviewed. One physician dropped out in the physician interview phase of the study. Physicians rated each of the community needs on a scale of one to five with respect to its urgency and stated whether they had participated in any CME in this area or if they were planning to participate in the future. The stated urgency of the needs and the intention to participate in future CME were not significantly correlated. The results are presented in Table 9. Physicians also ranked the ten needs in terms of their own learning priorities. The group ranking of the needs is presented in Table 10.

5.3.2 Physician comments on community needs.

In most cases, physicians commented about the needs identified by the community and if they perceived any barriers to meeting these needs. Each need is summarized and presented separately. Direct physician comments are italicized.

Communication. All physicians recognized the value and importance of good communication. Almost all physicians felt they communicated well with patients. Indeed, many felt that their success as family physicians was directly related to their communication skills, although some admitted there was room for improvement (n=5).

Communication with other health care providers was more problematic. Several commented it was integral to the medical care of patients. It provided better coordination of care and limited inappropriate referral and investigations. The importance of team care was recognized

(n=6). Not all physicians, however, were satisfied with their communication with home care nurses (n=3), other health professionals (n=2) and consultants (n=3). Communication with social services was mentioned in negative terms in six out of seven cases. One physician described trying to communicate with social services as a "*lost cause.*"

Barriers in communication were perceived by 26 of the respondents. They can be divided into two categories, barriers related to the current practice of medicine and barriers related to personal issues.

The perceived time required to communicate with the elderly was an issue (n=13). Some physicians felt that they could not make a living if they didn't limit the time they spent communicating (n=4).

Lines of communication were also a barrier. Having other team members call at inconvenient times and having difficulty tracking down and accessing other professionals were problems. Playing "telephone tag" was a particular annoyance (n=7). Significant delays in written communication particularly from the hospital and consultants obstructed communication (n=5). Some of the lack of communication with consultants and other professionals was perceived to be due to turf issues and the lack of respect that they had for family physicians' contributions (n=6).

Personal motivation and attitudes among physicians were seen as barriers. "*It is a question of priorities. You have to make it important. You have to be a good listener. Everyone thinks their time is most important and don't always take the extra time to communicate with others.*" Lack of skill was only mentioned once.

Finally, problems in communication were not seen as one sided. One physician summed up this aspect " *Sometimes elderly patients forget what we say, other times they nod but do not agree or understand with what we said.*

Communication is a two way process; we need adequate feedback if we are to improve."

Time management. For half the group, time management was not perceived to be an issue (n=14). These physicians felt time management was related to appropriate scheduling of patients and training of office staff. Staying on time was important to these physicians and they were more likely to close off an interview or re-book patients if time was running out. For the rest of the group it was perceived to be an issue. These physicians complained there was never enough time to address all the issues presented by the elderly. They had difficulty knowing how much time would be required or how many problems an elderly patient was going to discuss at any given visit. These physicians preferred to deal with an issue when it was mentioned and liked to talk to their patients. Both groups acknowledged that due to their complicated medical problems and greater number of medications, elderly patients required more time.

Physicians identified several barriers associated with time management. Time for some physicians was closely tied to remuneration. (n=11). Physicians stated that they were rewarded for quantity and not quality and sometimes quality suffered. They felt that they were being financially penalized for caring for the more complicated geriatric patients. Office management issues, such as poor scheduling and lack of trained staff were obstacles to good time management. Unexpected emergencies or crises were rarely cited as problems (n=3).

Unrealistic expectations by patients about the amount of time available were seen as problems (n=7). This could be compounded by caregivers' demands to discuss the patient's condition at length. One

physician explained the problem this way. "*These patients have multiple problems. It is difficult to deal with all the problems in one visit. It is a question of whether to deal with all the problems superficially or dealing with one in detail. Sometimes patients will have to make multiple visits, but they don't like that either.*"

Ageism. For half the physicians ageism was not perceived to be a problem. They felt that they considered the complaints of the elderly seriously. Other physicians felt ageism was an issue that they had to guard against, but they thought it was related to the current deficiencies in knowledge about aging and disease. A small group were concerned that we may be becoming overzealous and were afraid to attribute anything to aging (n=4).

Several barriers were identified for ageism. These were attitudes, knowledge, experience and communication problems. Negative attitudes toward the elderly were perceived among other physicians, patients themselves and society. Physicians' attitudes that were seen as problematic were: viewing aging as a disease and attributing too many complaints to aging (n=8). One physician stated "*We need to put a label on everything. Sometimes when we don't know we say it is because of your age.*"

Physicians stated that patients showed ageism themselves. Some patients had preconceived attitudes and blamed aging inappropriately for their disability. Others were unrealistic in their expectations and were perceived to be overly sensitive about their age (n=4). Society in general was also seen to contribute to the nihilism about aging (n=6).

Acquiring and keeping current with the changing knowledge about the aging process was seen to be the main obstacle (n=13). In addition, it was difficult for some physicians to know how to apply new knowledge. They

were concerned that new investigations or treatments when applied to the elderly would not improve the quality of their lives (n=6). This lack of knowledge and underlying attitudes creates a negative impression in patients. *"There is not much a doctor can do about chronic disease associated with aging. Treatment is difficult. Patients mistake the lack of offering a cure with lack of caring."*

Medication. All physicians were aware of the problems of polypharmacy, side effects and drug interaction in the elderly. One quarter of physicians felt they were on top of these issues. Physicians (n=13) mention five strategies that they used to tackle this problem: limiting prescribing in the elderly; reviewing drugs regularly; medication aids such as medication dosettes; the use of other team members (particularly the pharmacist); and the use of software drug interaction programs.

The greatest barrier that physicians perceived was trying to keep up to date about new and old drugs - their mechanisms and interactions (n=11). The time required to review medications and teach patients was an obstacle (n=8).

There were patient related barriers: the greater number of drugs required in elderly (n=12); the fact that patients often received drugs from multiple sources (n=4); and poor compliance due to memory impairment (n=7). *"It is also a question of patients understanding what you are trying to teach them. There is the issue of knowing when you are not connecting; when the patient is not compliant."*

Continuity of care. Over two thirds of the group provided continuity of care (n=23). Most felt this was a cornerstone of family practice and patients

received better care if family physicians were involved. Fewer followed their patients to long term care (n=21).

There were many obstacles to providing continuity of care. Political and turf issues were seen as barriers. The obtaining of hospital privileges was a barrier (n=8); but even within the hospital, the encroachment of the specialist in patient care was a problem (n=8).

Lifestyle was important (n=6). The amount of time required to provide care out of the office (n=14), the traveling (n=8) and the low remuneration were all barriers (n=8). This was perceived to be greater for long term care than hospital care.

Mental Health Problems. This was a particular problem area for most physicians. Many openly admitted having difficulties with the diagnosis and treatment of depression and dementia (n=18). Loneliness was perceived to be a social problem (n=6). *"It is difficult for a physician to provide enough (social) support; they need true relationships, something a physician can't really provide.". "Sometimes you feel like you are the only friend they have."* Community resources were seen as inadequate to meet the needs and difficult to access in a timely fashion (n=14). There was the additional difficulty in connecting the elderly to these resources. Lack of support from families (n=7) or families that needed help themselves (n=4) added to the problems.

Patients' attitudes about this area were seen as a barrier, both the reluctance to discuss the issues, and reluctance to accept treatment or referral (n=7). Occasionally there is physician nihilism (n=3) or lack of interest (n=3): *"It is often a dead end issue. What can you do?"* Time (n=8) and remuneration (n=4) were also issues.

Medical management of complicated geriatric patients. This was the greatest educational need for physicians. Physicians were well aware of the complexity of these patients and some felt overwhelmed by them. To cope one third of the group used consultant help. Nevertheless physicians felt that they were integral in the management of these patients' care. "*We have a role to play with these patients. We know the patients, their families, their multiple medications, their multiple problems.* "

Barriers to meeting this need were inexperience (n=12), the amount of time involved to manage these cases (n=10) and the accessibility of consultant specialists' help (n=7). Remuneration was a minor issue (n=3).

Community resources. Less than half the physicians felt comfortable with their knowledge of community resources (n=13). Many wanted to improve their knowledge (n=11). The importance of community resources was recognized by some (n=7): " *..after medical care, this is the next important issue in the management and the health of elderly patients. In order to live in the community or be discharged from hospital, community resources are required.*" Some physicians relied on home care nurses or other health team members to help them find appropriate resources for patients (n=7).

The multitude of resources and the fact that they are constantly changing were seen as barriers (n=11). To change this, physicians felt that there needs to be a coordinated, integrated and up to date system to link patients with the appropriate resources. It needs to be simple and cross-referenced by problem rather than agency (n=10). Finding out about resources was seen to be time consuming by a few (n=4). Another issue was the lack of communication between these resources and physicians (n=4).

Health promotion. The majority of physicians (n=22) recognized the importance of health promotion. Half (n=14) provided it as an integral part of their care. A smaller group (n=6) were not sure that it was their role or their role alone. These physicians either referred patients for health promotion, or reinforced the health promotion of others.

There were many barriers to health promotion. The logistic of doing health promotion "*the how? when? and where?*" was a concern. Time was a major issue (n =17). One physician described health promotion as an add on. "*The patient usually presents with a medical complaint. It is up to the physician to add on health promotion if there is any time left.*" Compliance, motivation and resistance to change by patients were seen as major problems. " *I sow a lot of seed on infertile ground*". This was a bigger problem with older patients than with younger. One physician stated that it was difficult to convince an individual who has successfully reached a ripe old age, that the patient was doing it all wrong. Physicians' attitudes, particularly if they did not see health promotion as their role, were seen as a barrier. Resources (n=2) and inadequate training were minor barriers that were mentioned (n=2).

Compassion. The majority of physicians felt that they were compassionate (n=23). "*It is an ethical and spiritual issue. I would have to question myself if I found myself not caring.*" Five felt they could improve in the area and three had difficulties. Several physicians (n=5) emphasized the importance of the development of relationships and compassion: " *the development of long term relationships is important; care is often fragmented. It is difficult to feel compassion for patients you don't really know.*"

Several barriers to compassion were cited. The time required to develop relationships was a barrier (n=13). Physicians' personality styles were an intrinsic barrier (n=10). It was thought by a few physicians that compassion could not be taught (n=3). Life experience was thought to add to the ability to be compassionate (n=4).

6.0 Discussion

This study reveals some interesting perceptions about physicians' educational needs in geriatrics. Before comparing the results of this study with other studies and examining the implications of the findings for CME, the validity of the perceived needs should be addressed. Are these true needs, i.e., necessary and essential? or are they desire or wants? (Scriven, 1982). One way to assess the necessity of these needs is by considering them in relation to their potential health outcomes. For some needs, such as education about medications, mental health issues and medical management, a connection with better health outcomes can be envisioned or has been measured. For other needs, such as being more compassionate, providing continuity of care, and taking more time with patients, the connection with better health outcomes is not as obvious. However, if an important outcome is patient or customer satisfaction then these needs are relevant. Physicians often feel uncomfortable with a consumer model of their relationship with patients. However many of the services that physicians currently provide such as reassurance, validation, and life skill counseling fall outside the strict diagnostic-treatment model. These services depend on the quality of the relationship and communication between the physician and the patient. If physicians are to continue to practice medicine from an holistic and patient centered focus, needs related to the delivery of care should be considered essential and should be addressed.

It is important not to misinterpret patients' comments as overall dissatisfaction with their care. Patients were asked to identify areas in which physicians needed more education with respect to the elderly. They were not asked to evaluate the present level of care that they were receiving.

While patients were critical of physicians in general, they often qualified their remarks with positive statements about their own physicians.

6.1 Community needs

The survey of community informants and the patient interviews provided useful information about physicians' educational needs. The most important needs and their implications for CME will be discussed below.

Informants identified needs in traditional aspects of medical care such as medication use and medical management of geriatric conditions. Appropriate medication use in the elderly is a national and provincial concern and is continually addressed by CME (CMA, 1993; Drug Use in the Elderly Communication Plan Committee, 1994). Another major area of need was mental health including dementia and psychosocial assessment. These needs were also identified in the 1992 CMA Invitational workshop on the Care of the Elderly and physicians' need assessments conducted in 1991 Calgary and 1990 in North Carolina (Gondocz, Meyers, Lockyer & Parboosingh, 1991; McCarthney, 1986 ; Williams & Connelly, 1991; Woollard, 1992).

Even though the above subjects are part of the standard curriculum of CME programs, physicians may not have yet incorporated this knowledge into practice or may be experiencing difficulty doing so. In addition, information about the expected standards and advances in geriatric medical practice may not be reaching all physicians. It remains a challenge for CME to design programs or services that not only provide physicians with new knowledge but also assists them in assimilating this knowledge into their practice.

The patients' perspective about physicians' needs added a different dimension to the study. Patients were more concerned about how medical care was delivered or "the process of care" rather than the content of the care. Patients were specifically concerned about the manner in which physicians communicated with them, their attitudes, the amount of time they spent with them and the continuity of the care provided. Patients wanted to be treated compassionately by the same doctor in their home, in the office, hospital and long term care. They wanted their concerns to be validated and resented any form of ageism. This emphasis by patients on the nature and the quality of their relationship with their physicians has been confirmed by others (Arborelius & Bremberg, 1992; Gillette, Kues, Harrigan & Franklin, 1986; Haigh Smith & Armstrong, 1989; Williams and Calnan, 1991). The community informants in their survey also identified these needs about the delivery of medical care to the elderly by physicians.

Communication skills were identified as educational needs by both patients and community informants. It was the number one need identified by patients. Patients wanted physicians to answer the questions that they presented and they wanted the answers to be clear and easy to understand. They wanted more information about their disease and treatment. This has been confirmed in other needs assessments (Lockyer, Juschka, Rajwani & Gill, 1993; Steven & Douglas, 1988; Williams & Calnan, 1991).

Good communication can increase the effectiveness of treatments and patients' compliance (Kaplan, Greenfield & Ware, 1989). Communication skills are normally taught in medical school; however the communication skills of post graduate physicians can be improved by the use of the use of role playing using audio and video tape feedback (Bowman Goldberg, Millar Gask & McGrath, 1992; Evans, Kiellerup, Stanley, Burrows & Sweet, 1987;

Maguire, 1990). Unfortunately, if physicians do not perceive a need to improve their communication skills with patients, they may not be motivated to attend courses specifically about communication. To circumvent this problem, CME planners can integrate components that address communication skills and patient education into geriatric medical and therapeutics courses.

Ageism and negative attitudes toward the elderly by some physicians is not a new complaint. Negative attitudes probably start early in medical school training (Maxwell & Sullivan, 1980). Medical school is the best place to address these attitudes while they are still forming. Changing the attitudes of established physicians may be a difficult task for CME. To change existing attitudes about geriatric patients, it would be necessary for physicians to have positive experiences managing these patients (Ajzen and Fishbein 1980; Lancaster, McLean & Guera, 1986). This could be facilitated by in-depth geriatric trainee-ships such as the one month fellowships offered by many of the universities or by multiple workshops using simulated or real case material.

Physician-patient contact time and "waiting room times" are recurrent dissatisfactions among patients (Baker, 1990; Steven & Douglas, 1988; Williams and Calnan, 1991). Patients in this and others studies often equate long waiting times and short amounts of time given to their concerns as a lack of respect for them as individuals. Strategies for dealing with this need are discussed in a later section of this paper.

Community informants identified issues that were not commonly identified in physicians' needs assessments such as health promotion and the use of community resources. These needs reflect the societal shift toward a wellness model and community care. The informants may be more aware of

this aspect than physicians. Interestingly the need for health promotion education was not identified as an issue by elderly patients. This has been confirmed in other studies (Gillette, Kues, Harrigan & Franklin 1986; Haigh Smith & Armstrong, 1989). CME can easily provide educational material in these subjects, but whether physicians and patients are willing to learn about these subjects is another issue. Further studies in this area may clarify this issue.

The needs that were identified can be divided into two categories. Some needs apply to the practice of medicine within physicians' offices such as: medication use; communication with patients; and medical management. Other needs apply to the practice of medicine outside the office, such as: psychosocial assessment; communication with other health professionals; using community resources; rehabilitation, palliative care etc. CME programs are currently concentrating on the former needs.

The latter needs reflect an important aspect of the reality of geriatric care. Some patients can not be managed by the physician alone; their care involves other health professionals and the family. It often involves coordinating care in the hospital, long term care and the community. For CME to address these needs, more innovative approaches will be required. It may be necessary to bring actual team members together to work on simulated or real cases to develop team management skills.

A concern expressed by some researchers is whether patients are capable of evaluating the technical aspects of medical care (Lebow, 1974; Fitzpatrick, 1991; Ward,1988). The results of this study affirm the difficulties patients have in this area. Other than concerns about the use of medication, patients rarely mentioned specific geriatric conditions and their management. Even when directed to specifically evaluate geriatric topics

such as falls, incontinence, dementia, sexual problems, elder abuse, two thirds "did not know."

Realistically, it is very difficult for patients to judge physicians' knowledge and the technical aspects of care. Patients can only judge the care received by themselves or their family members and their own personal outcomes. More meaningful information about specific geriatric conditions might be obtained if subgroups of patients with these conditions were interviewed. Even then patients' evaluations of their treatment is often colored by the relationship with and the affect of physicians (Ben-Sira 1980). Nevertheless patients' evaluations and needs are important to consider and can provide meaningful insights about the care that is delivered.

6.2 Physicians' response to community needs

While the identification of physicians' needs by the community is an important task in itself, physicians' responses to these needs are required to better understand these issues and to design programs to meet them. There were interesting areas of concordance and discordance about the various needs.

Physicians' comments about medication issues paralleled the concerns of the community informants and patients. All groups were concerned about the appropriate use of medication, the number of medications prescribed in the elderly, side effects and drug interactions. The major difference not addressed by physicians, but perceived by both community informants and patients, was the need to educate patients in these areas. Although some physicians had management strategies for monitoring drug use, most physicians are not educating their patients about medications due to the perceived lack of time.

CME can help improve physicians' management of medication by providing a forum for physicians to share these strategies as well as to introduce new tools such as the drug interaction computer programs. If patient education is to be a important focus for physicians, the plethora of educational materials developed by pharmacists can be shared with physicians in CME programs.

Physicians shared community informants' concerns about mental health problems. In contrast to the community informants' perception that physicians were unaware of these problems, physicians were acutely aware of these needs, but, at times, perceived insurmountable barriers to meeting them. Needs such as loneliness were perceived to be social rather than medical problems. Lack of community resources, the inability to engage patients and families in treatment and the time required to deal with these problems added to the difficulties. Undoubtedly these are real management problems for the solo family physician. While CME can address some of these issues, some of the problems are related to the organization and accessibility of services for the elderly.

There are notable areas of discordance in the perception of physicians' needs for improved communication with patients, more compassion and better attitudes toward the elderly. Almost all physicians felt that they were compassionate, and communicated well with patients. All expressed positive attitudes toward the elderly. If these are major needs, then it will be difficult to find ways to get physicians to address these needs in themselves. As most CME is done out of a perceived need, then the first task is to make physicians aware of these needs. Perhaps this could be accomplished by involving physicians in practice evaluations or audits.

The issue of time management needs special mention. Not all physicians had difficulty staying on time, and many suggested techniques that other physicians could learn. Spending more time with geriatric patients is another issue. Despite the awareness and complaints by physicians that the elderly require more time, there is no evidence that physicians spend more time with these patients. Studies have shown that physicians spent the same or less time with the elderly as younger patients (Radeki, Kane, Solomon, Mendellhall & Beck, 1988; Keeler, Solomon, Beck et al 1982).

Under the present fee for service model, time and remuneration are linked. This system is best suited for adults and children who usually present with one or two complaints and require straight forward instructions and treatments. Geriatric care that involves multiple problems; the need to communicate with multiple players; and the need to provide care outside the office is not well compensated in comparison.

The issue of inadequate remuneration for the care of the elderly is a frequent complaint by physicians and is perceived to be an obstacle to care (Fahs, Muller & Schechter 1989). In a North Carolina study 25% of physicians listed the financial aspect as the most challenging problem in geriatrics (Williams & Connelly, 1991). Unless the present funding system changes, physicians will not likely increase the time spent with geriatric patients, particularly when many physicians are facing fee reductions across the country.

A closely related issue is continuity of care. Continuity of care is beneficial for patients and is linked to patient satisfaction (Hjortdahl, 1992; Hjortdahl & Laerum, 1992). Although family physicians are expected to provide continuity of care, the initiative rests with the individual physician

(Walters, Toombs & Rabuka, 1994). The majority of physicians in this study believed that they provided continuity of care. This may be a prerequisite for physicians with larger geriatric practices. However time, travel, and inadequate remuneration are definite barriers to continuity of care. The restructuring of the health care system may make this an even greater challenge in the future.

While many of the issues are related to the present fee for service model of delivery care to patients, CME can help physicians to develop strategies for providing care for patients in different sites and between multiple professionals, and strategies for more efficiently using the time available. For physicians unable to provide continuity of care a better system of communication between providers must be devised. While this may not be a CME issue, it will have to be addressed.

The knowledge and the use of community resources were perceived by physicians to be integral to managing patients in the community. Yet the ability to keep current with the changing myriad of resources was a problem. While information about resources can be provided for specific geriatric problems in CME programs, what is really needed is a user friendly data base about current resources that physicians, other health professionals and patients could access. The system should be cross-referenced by problems as well as agency. This could be in the form of an on-line computer program from which specific program information could be printed out for professionals and patients.

An interesting finding was the lack of correlation between perceived urgency of need and intention to pursue CME in that area. Perhaps the question was too vague and a more positive response might have been received if a specific program was offered. This does highlight one of the

limitations of needs surveys. While most physicians' learning is need driven, many other factors such as accessibility, interest and available time will determine whether CME is pursued in that area (Kristofco, Hall, & Chick, 1987; Mann & Chaytor, 1992).

6.3 Integration of the three perspectives of educational needs

There were common themes across the groups about educational needs. Five of the first ten ranked needs (medication, communication, palliative care, community resources, attitudes) of the patients and the community informants were the same, although the relative importance of the needs were perceived differently (Table 11). The ranking of needs by physicians was consistent with community informants' assessments. The three top needs ranked by physicians and community informants (medical management, mental health problems and medications) were the same. This adds strengths to the perception of the importance of these educational needs.

There is a definite shift in the perception of educational needs and priorities from physicians,- to informants - to patients. Educational priorities move from specific areas involving the acquisition of knowledge and skills (such as medication and medical management) to the process of care (such as communication, time management and attitudes).

From the medical practice perspective, physicians must keep current in core medical practice areas. They often limit their CME activities to these areas. This has been verified by other researchers. Perez et al. (1991) found that physicians favored traditional medical topics in acute and long term care. Williams and Connelly (1990) in a survey of North Carolina physicians found that physicians identified dementia, multiple medical problems and

depression as their top three CME needs. However physicians can not continue to concentrate their CME in only these areas. To address this problem, CME could introduce less appealing geriatric topics by embedding them in these major interest areas.

There was considerable discordance between physicians' and patients' ranking of needs. While medication and time management were ranked in the top five of each list, they were ranked in the reverse order. Communication was ranked fourth by physicians. However physicians' communication difficulties were not perceived to be with patients but with other health professionals. Compassion was ranked last by physicians and was not perceived to be a significant need when discussed by physicians. This discrepancy between physicians' and patients' perception of needs has been found by other authors. Winefield and Murrell (1991) reported that doctors were most satisfied with consultations in which the medical problem and its solution were clear, while patients were most satisfied with consultations in which they discussed their own experiences and opinions. Physicians would benefit from a reminder about the importance of these other issues for patients.

Health promotion was rated ninth by physicians, and may not have been mentioned spontaneously in a format other than forced choice. While many physicians recognized the importance of health promotion, some physicians were not sure whether to provide it to the elderly or how to provide it. It was seen as time consuming and often as an "add-on". Some of this may reflect present confusion over the value of health promotion in the elderly, but also represents a resistance by some physicians to the current change in focus from diagnosis and treatment to health promotion and disease prevention.

An overview of the spectrum of needs for physicians brings into focus the question of what should be the role of a family physician with respect to geriatric patients. It would seem that the community expects physicians to provide a wide range of services including: being a provider of medical services in a variety settings; a sympathetic listener; a contact person to direct patients to other services; and a health promoter and an educator. This role is similar to the role outlined by the Canadian Medical Association in its role statement about primary care (Walters, Toombs & Rabuka, 1994). Perhaps this role should be questioned, particularly in relation to complicated elderly patients. Is it realistic in the present health care system for a solo physician to provide all these services single-handedly? or is it realistic of the community to expect this of physicians? Perhaps a community multidisciplinary team approach similar to the model used in the hospital setting would be more suitable for the more complicated geriatric patients.

For many of the needs and the barriers identified in this study the solutions lie outside the scope of CME. They are issues arising from the structure of the health care system itself, with its sometimes fragmented and piecemeal approach to the delivery of health care services.

There are several limitations in the present study. The first concern is bias arising in the responses from informants, patients and the physicians. There is always the question of whether the right informants were surveyed. This was minimized by using established informant lists for a sampling frame and ensuring adequate representation from the major groups providing service to the elderly. The response rate from these groups was also excellent. The results of the rating scales complemented the open-ended needs assessment; all the needs that were rated as inadequate on the rating scale were identified spontaneously in the open-ended part of the

questionnaire. This provided evidence of the reliability of these responses. There was correspondence between the needs identified by informants and by the patients. The rank order of the needs identified by the informants and by the physicians also overlapped. While key informants commonly overstate the magnitude of needs (McKillip, 1987), the basic needs that were identified are probably valid.

The low response rate from physicians and from patients is a concern. Such response rates from physicians and patients are fairly common (Drury & Hull, 1981; Herzog & Rodgers, 1988; Cartmel & Moon, 1992; Kelsey, Obrien, Grisso & Hoffman 1989 Williams & Connolly, 1991). While the sample size was adequate for an exploratory study, there was definite response bias. Despite the fact that physicians' practices were randomly selected, physicians who participated in the study had more geriatric patients and provided more care in the hospital and long term care setting than those that did not. Physicians in this study had been in practice on a average of ten years and some had considerable experience with geriatric patients. Their needs may not be the same as physicians with fewer geriatric patients. Physicians who participated may have been more concerned about geriatric patients than those that declined.

There was a potential for physicians to be biased in their selection of patients for the study. One might have expected the selection of satisfied patients. Despite this, patients' opinions were remarkably consistent from practice to practice and were often critical of physicians. Patients' responses in this study were also consistent with responses in other research studies.

There may have also been some bias in the physicians' responses to the patients' needs. Physicians may have presented themselves in a favorable light and minimized their medical practice problems. Patients may have also

been less candid in their responses for fear that their remarks might inadvertently get back to their physicians. Even if that were the case, the main results of the study would remain the same. There is discordance in the perceptions of needs and priorities between physicians and patients and there are definite perceived barriers to meeting these needs.

There was considerable diversity among physicians' practices and opinions that the group data does not reflect; however group data does provide insight into the needs that CME can address on a group program basis. Because of the exploratory nature of the study, and differences in patterns of practice in different locales, the results can not be generalized to other settings. However these findings point to issues that other geriatric CME programs can examine.

7. 0 Conclusions and Recommendations

1. The use of key community informants can provide useful information about the quality of medical care and identify specific areas upon which CME can focus. Patients' assessments may be limited with respect to specific topic areas in geriatrics but provide useful information about the process of care.

2. While patients as a group were unable to provide information about educational needs in specific areas of geriatrics such as falls, dementia, incontinence etc., it may be possible to obtain this information by surveying patients and informants who are experienced with these conditions. This needs to explored.

3. As some of the needs identified by the community are not apparent to many physicians, more self-assessments and practice appraisals would be useful to highlight learning needs for physicians. These can be in the form of written knowledge assessment, interactive computer management assessment programs, or medical chart audits or patient survey audits. Some of these programs are already used as part of the maintenance of competency and re-certification programs offered by the Colleges of Family Physicians of Canada and the United States. CME could integrate components of these into the first phase of some its programs.

4. In program development in geriatrics, CME programs need to emphasize the process of the delivery of medical care as well as the dissemination of medical knowledge.

5. There needs to be continued CME in the basic areas of medical management of complicated geriatric patients, and medication use.

6. Physicians require more education about the diagnosis and treatment of mental health issues including dementia and depression. Particular emphasis on the management of dementia in the home will be beneficial.

7. The needs of improved communication and better attitudes toward the elderly are particular challenges for CME. The first task is to make physicians aware of these needs; the second task is to design effective interventions.

8. As geriatric care often involves a multidisciplinary team, physicians will need more experience in this model to better manage patients who are frail at home, or in institutional settings. They will need experience working and communicating with other team members.

9. Teaching physicians about existing community resources and how to access them is an important need that CME can address.

10. An integrated user friendly and updated directory of community resources should be developed.

11. The area of health promotion for geriatric patients should be further explored. It is certainly not a priority for either physicians or geriatric patients. The types of interventions that would be beneficial and acceptable

to the elderly and physicians and the best way to deliver health promotion remain unclear.

12. Some needs such as time allocation and time management are not primary CME concerns, but could be met through practice management courses. The optimal amount of time to spend with patients with particular types of problems needs to be clarified by further research.

13. There is a divergence of opinions and expectations among informants, patients, and physicians about the scope of the physician's role. A realistic reconciliation about the role of the physician in the care of geriatric patients needs to occur among physicians, informants and patients.

14. Qualitative research concerning the discordance in perceived need between physicians and patients is required to better understand the underlying issues.

15. Not all of the needs identified in this study can be addressed by CME. Some of the needs such as continuity of care, health education, and time allocation can only be addressed by fundamental changes to the health care delivery structure and the payment methods of the health care system.

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Appendix A

Table 1

Key Community Informants

Director of the Community Day Hospitals (2)
Director of the Calgary Metropolitan Lodges
Director of the Kerby Center
Director of the Golden Age Club
Director of the Alberta Council on Aging
Coordinator of the Single Point of Entry System - Care West
Director of the Educational Resources for Long Term Care
Coordinator of the Health Connection for Seniors
Director of the Calgary Community Support Services for Seniors
Director of the Senior Assisting Seniors
Director of the Substance Abuse in Later Life
Director of the Psychogeriatric Subcommittee of the Regional Mental Health Planning Committee
Directors of the Geriatric Assessment and Rehabilitation Programs (4)

Table 2

Educational needs presented to physicians

1. Communication with patients, and other health care or social service professionals

2. Time management (scheduling adequate appointment time for patients' problems, staying on schedule)

3. Ageism (distinguishing what is due to the aging process and what is related to disease processes)

4. Medication (appropriate dosage, interactions, side effects, and patient education)

5. Providing continuity of care (from the office to the hospital to long term care)

6. Mental health problems (depression, dementia, loneliness)

7. Medical management of complicated geriatric patients

8. Community resources (knowledge of community resources, appropriate referrals)

9. Health promotion (education of patients with respect to appropriate diet, exercise and disease prevention)

10. Compassion (finding ways of conveying empathy and understanding to patients)

Table 3

Educational needs identified by key community informants (N=25)

Need	n	Importance score
1. Medication	22	86
2. Mental health problems	11	42
3. Medical Management	9	28
4. Community resources	14	25.5
5. Health promotion	11	25
6. Communication with patients	7	22.5
7. Dementia	7	20.5
8. Attitude toward the elderly	6	18.5
9. Psychosocial assessment	6	16.5
10. Geriatric Assessment	3	14
11. Palliative care	5	12.5
12. Rehabilitation	4	9
13. Team care	7	8
14. Aging process	4	7
15. Substance abuse	3	7
16. Incontinence	3	6
17. Elder Abuse	3	5
18. Osteoarthritis	2	3.5
19. Foot care	1	3
20. Sexuality	3	2.5
21. Falls	2	2
22. Diabetes management	2	1.5
23. Motion disorders	1	0.5

Table 3 continued

Need	n	Importance score
24. Osteoporosis	1	.05
25. Cancer	1	.05
26. Infections	1	.05
26. Bowel management	1	.05

Table 4

Adequacy of physicians' education in specific geriatric areas as rated by community informants (N=24)

Need	adequate n(%)	inadequate n(%)	don't know n(%)
Dementia			
knowledge	6 (24.0)	15 (62.5)	3 (12.5)
management	2 (8.3)	18 (75.0)	4 (16.7)
attitude	3 (12.5)	16 (66.7)	5 (20.8)
Incontinence			
knowledge	8 (33.3)	12 (50.0)	4 (16.7)
management	5 (20.8)	17 (70.8)	2 (8.3)
attitude	6 (25.0)	14 (58.3)	4 (16.7)
Stroke management			
knowledge	17 (70.8)	4 (16.7)	3 (12.5)
management	13 (54.2)	8 (33.3)	3 (12.5)
attitude	10 (41.7)	8 (33.3)	6 (25.0)
Falls			
knowledge	11 (45.8)	8 (33.3)	5 (20.8)
management	5 (20.8)	14 (58.4)	5 (20.8)
attitude	5 (20.8)	13 (54.2)	6 (25.0)

Table 4 continued

Medication			
knowledge	4 (16.7)	18 (75.0)	2 (8.3)
management	0 (0)	21 (91.3)	2 (8.7)
attitude	2 (8.3)	18 (75.0)	4 (16.7)
Depression			
knowledge	4 (16.7)	20 (83.3)	0 (0)
management	2 (8.3)	22 (91.7)	0 (0)
attitude	1 (4.3)	19 (79.2)	4 (16.7)
Alcohol abuse			
knowledge	8 (34.8)	12 (52.2)	3 (13.0)
management	4 (17.4)	17 (73.9)	2 (8.7)
attitude	4 (17.4)	14 (60.9)	5 (21.7)
Issues surrounding dying			
knowledge	5 (12.7)	13 (56.5)	5 (21.7)
management	3 (13.0)	16 (69.6)	4 (17.4)
attitude	4 (17.4)	12 (52.2)	7 (30.4)
Sexual problems			
knowledge	3 (13.0)	11 (47.8)	9 (39.1)
management	0 (0)	14 (60.9)	9 (39.1)
attitude	1 (4.3)	12 (56.5)	9 (39.1)

Table 4 continued

Elder Abuse			
knowledge	1 (4.3)	15 (65.2)	7 (30.4)
management	0 (0)	16 (69.6)	7 (30.4)
attitude	2 (8.7)	12 (52.2)	9 (39.1)
Communication			
knowledge	5 (20.0)	17 (68.0)	1 (4.3)
skills	3 (13.0)	18 (78.3)	2 (8.7)
attitude	2 (8.7)	18 (78.3)	3 (13.0)
Community resources			
knowledge	1 (4.3)	21 (91.3)	1 (4.3)
use	1 (4.3)	21 (91.3)	1 (4.3)
attitude	4 (17.4)	13 (56.5)	6 (26.1)

Table 5

Characteristics of participating and non-participating physicians

	Participating	Non-participating	
	N=30	N=29	
Sex male	21 (70%)	22 (76%)	n.s
female	9 (30%)	7 (24%)	n.s.
Years in practice (average)	17 (2-37)*	22 (8-50)*	n.s.
Percentage of geriatric patients			
0-25	20 (67%)	26 (90%)	
25-50	6 (20%)	3 (10%)	
>50	4 (13%)	0 (0%)	p<.056**
Hospital privileges	23 (77%)	14 (48%)	p<.02**
Nursing home practice	21 (70%)	6 (21%)	p<.001**
Mean age in years	46 (34-65)*	46 (39-70)*	n.s.

*range

**chi-square test

Table 6

Reasons given by physicians for declining to participate

Not interested / too busy	14
No longer in practice	5
Away from practice during study period	6
Non geriatric practice	4

Table 7

Educational needs in geriatrics as perceived by patients (N=32)

Need	n	Importance Score
1. Communication	28	110
2. Time management	26	74
3. Ageism	17	53
4. Medication	12	39
5. Continuity of care	12	38
6. Compassion	13	36
7. Home visits	7	23
8. Functional disability	4	17
9. Community resources	3	10
10. Death and dying	4	10
11. Nutrition	1	3
12. Alternative healing	1	4
13. Specific diseases	5	13

Table 8

Adequacy of physicians' education in specific geriatric areas as rated by patients (N=32)

Topic	adequate n(%)	inadequate n(%)	don't know n(%)
Dementia			
knowledge	2 (6.3)	6 (18.8)	24 (75.0)
management	2 (6.3)	3 (9.4)	27 (84.4)
attitude	1 (3.1)	3 (9.4)	28 (87.5)
Incontinence			
knowledge	4 (12.5)	7 (21.9)	21 (65.6)
management	3 (9.4)	6 (18.8)	23 (71.9)
attitude	3 (9.4)	5 (15.6)	24 (75.0)
Stroke management			
knowledge	15 (46.9)	3 (9.4)	14 (43.8)
management	13 (40.6)	2 (6.3)	17 (53.1)
attitude	12 (37.5)	0 (0)	20 (62.5)
Falls			
knowledge	5 (15.6)	8 (25.0)	19 (59.4)
management	7 (21.9)	6 (18.8)	19 (59.4)
attitude	7 (21.9)	5 (15.6)	20 (62.5)

Table 8 continued

Medication			
knowledge	17 (53.1)	12 (37.5)	3 (9.4)
management	13 (40.6)	16 (50.0)	3 (9.4)
attitude	15 (46.9)	15 (46.9)	2 (6.3)
Depression			
knowledge	5 (15.6)	14 (43.8)	13 (40.6)
management	3 (9.4)	12 (37.5)	17 (53.1)
attitude	7 (21.9)	7 (21.9)	18 (56.3)
Alcohol abuse			
knowledge	9 (28.1)	3 (9.4)	20 (62.5)
management	4 (12.5)	4 (12.5)	24 (75.0)
attitude	5 (15.6)	4 (12.5)	23 (71.9)
Issues surrounding dying			
knowledge	10 (31.3)	8 (25.0)	14 (43.8)
management	7 (21.9)	8 (25.0)	17 (53.1)
attitude	9 (28.1)	8 (25.0)	15 (45.9)
Sexual problems			
knowledge	3 (9.4)	3 (9.4)	26 (81.3)
management	2 (6.3)	2 (6.3)	28 (87.5)
attitude	2 (6.3)	2 (6.3)	28 (87.5)

Table 8 continued

Elder Abuse			
knowledge	1 (3.1)	8 (25.0)	23 (71.9)
management	2 (6.3)	7 (21.9)	23 (71.9)
attitude	4 (12.5)	4 (12.5)	24 (75.0)
Communication			
knowledge	20 (62.5)	12 (37.5)	0 (0)
skills	18 (56.3)	14 (43.8)	0 (0)
attitude	17 (53.1)	13 (40.6)	2 (6.3)
Community resources			
knowledge	12 (37.5)	11 (34.4)	9 (28.1)
use	12 (37.5)	9 (28.1)	11 (34.4)
attitude	15 (46.9)	7 (21.9)	10 (31.3)

Table 9

Community needs: Physicians' rating of the urgency of the need and participation in CME in that area in the past or future

Need	Rating* median(range)	Past CME	Future CME	Correlation between need & future CME**
1. Medical Management	3 (1-5)	19 (63%)	22 (73%)	.21
2. Medication	3 (1-5)	21 (70%)	23 (77%)	.18
3. Mental Health Problems	4 (1-5)	19 (63%)	23 (77%)	.09
4. Communication	2 (1-5)	6 (20%)	7 (23%)	.15
5. Time Management	3 (1-5)	10 (33%)	9(30%)	.24
6. Community Resources	3 (1-5)	8 (27%)	5 (17%)	.34
7. Ageism	3 (1-5)	13 (43%)	13 (43%)	.36
8. Continuity of Care	2 (1-5)	2 (7%)	4 (13%)	.03
9. Health Promotion	2 (1-5)	13 (43%)	18 (60%)	.10
10. Compassion	2 (1-5)	10 (33%)	6 (20%)	.10

* 1 was not a need, 5 was an urgent need
**Spearman correlation coefficient between the rating of the urgency of the CME need and intention to participate in future CME in the topic. None of the correlations were significant at $p<.05$.

Table 10

Community needs as rank ordered by physicians

Need	Importance score *
1. Medical Management	231
2. Medication	226
3. Mental Health Problems	206
4. Communication	166
5. Time Management	150
6. Community Resources	144
7. Ageism	142
8. Continuity of Care	139
9. Health Promotion	127
10. Compassion	112

*An importance score was derived by multiplying the ranking scores by the number respondents choosing that ranking. The most important ranked need was given score of 10, the least, a score of one. The maximum importance score possible was 300, the minimum 30.

Table 11

Comparison of relative ranking of needs among community informants, patients and physicians

Physicians	Informants	Patients
1. Medical Management	Medication	Communication
2. Medication	Mental health problems	Time management
3. Mental Health Problems	Medical management	Ageism
4. Communication	Community resources	Medication
5. Time Management	Health promotion	Continuity of care
6. Community Resources	Communication	Compassion
7. Ageism	Dementia	Home visits
8. Continuity of Care	Attitudes	Functional disability
9. Health Promotion	Psychosocial Assessment	Community resources
10. Compassion	Palliative care	Death and dying

Appendix B

NO.

COMMUNITY INFORMANT SURVEY FOR MEDICAL EDUCATION IN GERIATRICS

Based on your experience and knowledge of the elderly please name **5** areas in which physicians need more education with respect to the elderly? Even if you are not working in a medical field, your opinion is valuable.
Put your replies in the space indicated and answer the questions with respect to that area. Add any comments that you wish.

Area 1 _____

A.With respect to this area do you perceive it to be a problem of awareness / problem identification?
_____yes
_____no
_____do not know
_____not applicable

Comments:

B. Is it a problem of lack of knowledge about patient management?
_____yes
_____no
_____do not know
_____not applicable

Comments

C. Is it a problem of lack of physician education of patients ?
_____yes
_____no
_____do not know
_____not applicable

Comments:

D. Is it a problem of physician communication with patients?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Area 2_____

With respect to this area do you perceive it to be a problem of awareness / problem identification?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Is it a problem of lack of knowledge about patient management?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Is it a problem of lack of physician education patients ?
_____yes
_____no
_____do not know
_____not applicable

Comments:

communication with patients?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Area 3 _____

With respect to this area do you perceive it is a problem of awareness/ problem identification?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Is it a problem of lack of knowledge about patient management?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Is it a problem of lack of physician education of patients ?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Physician communication with patients?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Area 4 _____

With respect to this area do you perceive it to be a problem of awareness / problem identification?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Is it a problem of lack knowledge about patient management?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Is it a problem of lack of physician education of patients ?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Physician communication with patients?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Area 5_____

With respect to this area do you perceive it to be a problem of awareness / problem identification?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Is it a problem of lack of knowledge about patient management?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Is it a problem of lack of physician education of patients ?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Physician communication with patients?
_____yes
_____no
_____do not know
_____not applicable

Comments:

Please **rank** in order of priority the five areas you have indicated.
1.

2.

3.

4.

5.

Other areas
Please indicate below any other areas you think are important.

Some areas of need for physician education in geriatrics have been identified by other researchers. From your own experience, please assess the adequacy of physician education in the areas listed below (check your response)

TOPIC	Adequacy of physicians' education		
Dementia			
knowledge	___adequate	___inadequate	___do not know
management	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Incontinence (loss of bladder control)			
knowledge	___adequate	___inadequate	___do not know
management	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Stroke management			
knowledge	___adequate	___inadequate	___do not know
management	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Falls			
knowledge	___adequate	___inadequate	___do not know
management	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Medication			
knowledge	___adequate	___inadequate	___do not know
management	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Depression			
knowledge	___adequate	___inadequate	___do not know
management	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Alcohol abuse

knowledge	___adequate	___inadequate	___do not know
management	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Issues surrounding dying

knowledge	___adequate	___inadequate	___do not know
management	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Sexual problems

knowledge	___adequate	___inadequate	___do not know
management	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Elder Abuse

knowledge	___adequate	___inadequate	___do not know
management	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Communication

knowledge	___adequate	___inadequate	___do not know
skills	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Community resources

knowledge	___adequate	___inadequate	___do not know
use	___adequate	___inadequate	___do not know
attitude	___adequate	___inadequate	___do not know

Comment:

Demographic information

How many years have you been working with the elderly?_____years

In what capacity
- ____ health care
- ____ education
- ____ social programs
- ____ other please specify_____

Thank-you for your participation

Appendix C

Date of interview No.
yr/mo/day

Patient interview questionnaire

Introduction (interviewer)

We conducting a community survey for to help us improve physician education about the elderly It would really help us if you could answer the following questions. All information will be kept confidential. You can end the interview at anytime. Do you mind if we tape the interview. We don't want to miss any of your comments. Do you have any questions about the study?

Imagine that you are planning a course for physicians about the elderly.
Can you think medical areas or topics about the elderly in which doctors need more training?

If no response

any diseases? Imagine you are in charge of teaching doctors what would you teach them?

Can you think of five?

List
1._____
2._____
3._____
4._____
5._____

Area 1_____
Can you tell me about this.
Why is it a problem?

Prompt: If applicable to the subject.

Do you think it is because they are not aware of the problem or are not looking for the problem?
yes no do not know
comments:

Don't know how to manage the problem?
yes no do not know
comments:

Are not teaching patients about.....

yes no do not know
comments:

Do you think it is a problem of communication with patients?
yes no do not know
comments:

Area 2._____
Can you tell me about this.
Why is it a problem?

Prompt: if applicable to the problem
Do you think it is because they are not aware of the problem or are not looking for the problem?
yes no do not know
comments :

Do you think physicians know how to manage the problem?
yes no do not know
comments :

Are teaching patients enough about this problem?
yes no do not know
comments :

Do you think it is a problem of communication with patients?
yes no do not know
comments :

Area 3._____
Can you tell me about this.
Why is it a problem?

Prompt
Do you think it is because they are not aware of the problem or are not looking for the problem?
yes no do not know
comments :

Do you think doctors know how to manage the problem?
yes no do not know
comments :

Do you think doctors are teaching patients enough about ..... ?
yes no do not know
comments :

Do you think it is a problem of communication with patients?
yes no do not know

comments :

Area 4._____
Can you tell me about this.
Why is it a problem?

Prompt: If applicable
Do you think it is because they are not aware of the problem or are not looking for the problem?

yes no do not know
comments :

Do you think doctors know about how to manage the problem?
yes no do not know
comments :

Are doctors teaching patients enough about this area?
yes no do not know
comments :

Do you think it is a problem of communication with patients?
yes no do not know
comments :

Area 5. _____
Can you about tell me this.
Why is it a problem?

Prompt : If applicable
Do you think it is because they are not aware of the problem or are not looking for the problem?

yes no do not know
comments :

Do you think doctors know how to manage the problem
yes no do not know
comments :

Are doctors teaching patients enough about..... ?
yes no do not know
comments :

Do you think it is a problem of communication with patients?
yes no do not know
comments :

Let's rank these in terms of their importance
Which two of all the topics discussed (list) are first and second in an importance in your opinion.
1.
2.
Third
Last?

Rating scales

Now I am going to asked you to comment on possible educational subjects other surveys have found. First I will mention the topic. Tell me if you know enough about this topic to comment about it. If you do, whether you think doctors education in this area is adequate.

TOPIC **Physician level of education**

Dementia (Alzheimer's)
Do you know enough about this to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
management	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Incontinence
(loss of control of urine)
Do you know enough about this to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
management	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Stroke management
Do you know enough about this to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
management	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Falls
Do you know enough about this to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
management	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Medication
Do you know enough about this to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
management	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Depression
Do you know enough about this to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
management	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Alcohol abuse
Do you know enough about this to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
management	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Issues surrounding dying
Do you know enough about to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
management	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Sexual problems
Do you know enough about this to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
management	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Elder Abuse
Do you know enough about this to comment yes/no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
management	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Communication
Do you know enough about this to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
skills	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Community resources
Do you know enough about this to comment yes /no
Do you feel doctors education in this area is adequate.

knowledge	adequate	inadequate	do not know
use	adequate	inadequate	do not know
attitude	adequate	inadequate	do not know

Comment:

Demographic information

When were you born ?

Sex

How many different doctors do you think have you seen in the last five years?

Do you presently have any medical problems ? What are they?

Thank you

Appendix D

Physician questionnaire

Id no.
Date of interview

Thank you for agreeing to participate in this research project about physician educational needs for geriatric patients. I will show you ten educational needs that have been identified for physicians as a group in a recent survey of the community. The survey included program directors, community health workers and geriatric patients. Please consider each one separately and decide whether this is an educational need ***for you.***

1..... (Show card)

On a scale of one to five, where 1 is not a need and five is an urgent need, how would you rate this need for you personally?

1 2 3 4 5
not a need urgent need

Could you explain or elaborate on this?

Have you participated in any CME in this area in the past 2 years? ____yes ____no
if yes what?

Are you planning to do or participate in any CME in this area? ____yes ____no
if yes when?

If this is a need for you, do you perceive any barriers to meeting this need?____ yes____ no
If yes please specify

Emotional response (neutral, positive defensive, angry)

2..... (Show card)

On a scale of one to five where 1 is not a need and five is an urgent need how would you rate this need for you personally?

1 2 3 4 5
not a need urgent need

Could you explain or elaborate on this?

Have you participated in any CME in this area in the past 2 years? ____yes ____no
if yes what?

Are you planning to do or participate in any CME in this area? ____yes ____no
if yes when?

If this is a need, do you perceive any barriers to meeting this need?____ yes____ no
If yes, Please specify

Emotional response (neutral, positive, defensive, angry)

3..... (show card)

On a scale of one to five, where 1 is not a need and five is an urgent need how would you rate this need for you personally?

1 2 3 4 5
not a need urgent need

Could you explain or elaborate on this?

Have you participated in any CME in this area in the past 2 years? ____yes ____no
if yes what?

Are you planning to do or participate in any CME in this area? ____yes ____no
if yes when?

If this is a need, do you perceive any barriers to meeting this need? ____ *yes*____ *no*
If yes Please specify

Emotional response (neutral, positive, defensive, angry)

4..... (show card)

On a scale of one to five where 1 is not a need and five is an urgent need how would you rate this need for you personally?

1 2 3 4 5
not a need urgent need

Could you explain or elaborate on this?

Have you participated in any CME in this area in the past 2 years? ____yes ____no
if yes what?

Are you planning to do or participate in any CME in this area? ____yes ____no
if yes when?

If this is a need, do you perceive any barriers to meeting this need? ____ *yes*____ *no*
If yes Please specify

Emotional response (neutral, postive, defensive, angry)

5..... (show card)

On a scale of one to five where 1 is not a need and five is an urgent need how would you rate this need for you personally?

1 2 3 4 5
not a need urgent need

Could you explain or elaborate on this?

Have you participated in any CME in this area in the past 2 years? ____yes ____no

Are you planning to do or participate in any CME in this area? ____yes ____no
if yes when?

If this is a need, do you perceive any barriers to meeting this need? ____ *yes*____ *no*
If yes Please specify

Emotional response (neutral, positive, defensive, angry)

6..... (show card)

On a scale of one to five where 1 is not a need and five is an urgent need how would you rate this need for you personally?

1 2 3 4 5
not a need urgent need

Could you explain or elaborate on this?

Have you participated in any CME in this area in the past 2 years? ____yes ____no
if yes what?

Are you planning to do or participate in any CME in this area? ____yes ____no
if yes when?

If this is a need, do you perceive any barriers to meeting this need? ____ *yes*____ *no*
If yes Please specify

Emotional response (neutral, positive defensive, angry)

7..... (show card)

On a scale of one to five where 1 is not a need and five is an urgent need how would you rate this need for you personally?

1 2 3 4 5
not a need urgent need

Could you explain or elaborate on this?

Have you participated in any CME in this area in the past 2 years? ____yes ____no
if yes what?

Are you planning to do or participate in any CME in this area? ____yes ____no
if yes when?

If this is a need, do you perceive any barriers to meeting this need? ____ *yes*____ *no*
If yes Please specify

Emotional response (neutral, possitive, defensive, angry)

8..... (show card)

On a scale of one to five where 1 is not a need and five is an urgent need how would you rate this need for you personally?

1 2 3 4 5
not a need urgent need

Could you explain or elaborate on this?

Have you participated in any CME in this area in the past 2 years? ____yes ____no
if yes what?

Are you planning to do or participate in any CME in this area? ____yes ____no
if yes when?

If this is a need, do you perceive any barriers to meeting this need? ____ *yes*____ *no*
If yes Please specify

Emotional response (neutral, positive, defensive, angry)

9..... (show card)

On a scale of one to five where 1 is not a need and five is an urgent need how would you rate this need for you personally?

1 2 3 4 5
not a need urgent need

Could you explain or elaborate on this?

Have you participated in any CME in this area in the past 2 years? ____yes ____no
if yes what?

Are you planning to do or participate in any CME in this area? ____yes ____no
if yes when?

If this is a need, do you perceive any barriers to meeting this need? ____ *yes*____ *no*
If yes Please specify

Emotional response (neutral, positive, defensive, angry)

10..... (show card)

On a scale of one to five where 1 is not a need and five is an urgent need how would you rate this need for you personally?

1 2 3 4 5
not a need urgent need

Could you explain or elaborate on this?

Have you participated in any CME in this area in the past 2 years? ____yes ____no
if yes what?

Are you planning to do or participate in any CME in this area? ____yes ____no
if yes when?

If this is a need, do you perceive any barriers to meeting this need? ____ *yes*____ *no*
If yes Please specify

Emotional response (neutral, positive, defensive, angry)

Ranking (use cards)

Please rank these community needs from 1-10 in terms of your own learning priorities.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

I have presented a list of geriatric topics preceived by the community. Do you have other needs in geriatrics? What are they?

Demographic information

Year of birth

Sex

Years in practice

Graduated from Year

Solo or group practice

What percentage of geriatric patients do you have in your practice
0-25%
25-50%
>50%

Do you look after patients in Long Term Care yes/no

Do you have hospital privileges? yes/no

Appendix E.1

December 21, 1992

Dr. D. Jones
1727 24th St.
Calgary Alta
t2S 1w1

Dear Dr. Jones

As part of my Master's thesis in Community Health Science, I am conducting a community needs survey in order to make continuing medical education in geriatrics more relevant for physicians. To determine the priorities and needs for geriatric education for physicians, I will be interviewing patients and practicing physicians.
The study is supported by the Department of Continuing Medical Education at the University of Calgary and the College of Family Physicians. Dr. Margaret Russell and Dr. John Parboosingh are my advisors for this study.

Would you assist me by participating in this research?

Participation will be on two levels.

1. **Patient recruitment**

Would you recruit two geriatric patients (65 years and older) from your practice for a personal interview? This can be done by mailing them the enclosed stamped letter.

To minimize bias in selection, the patients must be randomly selected, according to the attached protocol. (See enclosure) Please exclude patients who cannot give an informed consent (i.e., patients who are demented or severely ill).

The letter outlines the purpose of the research and the conduct of the interview. In the interview patients will be asked to list and discuss five areas in which they feel physicians' education in geriatrics can be improved and rate the importance of some previously identified areas.

The interview should last approximately 20 minutes and will be conducted in the patient's home at their convenience. All information from patients will be confidential and only group data will be reported.

2. Physician interview
After the community needs survey has been completed, I will like to interview you to hear your response to the needs identified by the community survey. Whether you have similar or different priorities and for what reasons will be discussed. The interview should take 30 minutes. All information will be kept strictly confidential.

After the study is completed (approximately 12 months) a brief summary of the results of the study can be obtained by contacting my office at 228-4844.

In the near future, I will be contacting you by telephone to determine whether you can participate and to answer any other questions. Your assistance and participation would be greatly appreciated and will contribute to the success of this project.

Sincerely,

L.Pereles MD CCFP

Chairperson, Geriatric Physician Education Group

How to randomly select patients for the study
(This can be done by your office staff)

1. Take your day sheet or billing record from the last month.

2. Number consecutively the geriatric patients consequentively

3. Select the first two patients who correspond to the enclosed random numbers.
If the random number exceeds the number of patients on your list, go to the next number
until you have chosen two patients.

4. Mail these patients the enclosed letter.

Example
In the month prior, there were only 25 geriatric patient visits

Random Number List	**Patient List**
	1. B Jones
11	2. T. Tink
53	3. S. Smith
32	4. D. Daw
6	5. R. Rink
97	6. G.Gone
74	7.T. Paul
24	8. M. Moon
67	9. J. Doe
62	10. G. Law
42	11. P. Tran
81	12. R. Lap
14	13. H. Hope
57	14. S. Steaert
20	15. R. Nickle
42	16. T. Rase
	:
	:
	25.

Select the patient numbered 11. As there are no patients who are numbered 53 or 32, skip over these. Chose patient 6.

If you need any assistance with this procedure please call me at 228-4844. I will be happy to help you.

Appendix E.2

July 28 1993

Dear Sir or Madam:

I am a medical doctor with a particular interest in the health care provided to older persons. For my Master's degree, I am interviewing seniors in the community to help us improve physician education about the elderly. The study is supported by the Department of Continuing Medical Education at the University of Calgary and the College of Family Physicians.

The purpose of the study
This study will be used to improve medical education for physicians about elderly patients. In this study, I am interviewing older patients to find out in which areas they feel doctors need more training to provide better care for elderly patients.

How were you selected?
You were selected by your family doctor, who was asked to **randomly** select two older patients form his/her practice and give them this letter.

Can you help us with this study?
To conduct the survey, a research assistant or a family physician will come and interview you in your home. The interview should last 20 to 30 minutes. You will be asked to name five areas in which you feel physicians' education can be improved. You will also be asked to give your opinion on a list other topics for physicians' education about seniors.

The benefits of participation
While you may not directly benefit from participating in this research, the results of the study will be used to make physicians' education more responsive to the health needs of seniors. Hopefully, this will result in better care for senior citizens.

All information will be kept confidential. **Your own answers will not be given to your doctor.** Only pooled results of all the patients' interviews will be reported. Participation is purely voluntary but vital to the success of the study. If you would like to be interviewed or have any further questions, please phone me at 228-4844 or contact your family physician. **Please return the enclosed interview card in the mail, even if you do not want to participate.** The cards have been numbered to determine how many people reply.

Thank you,

L Pereles MD CCFP, Chairperson, Geriatric Physician Education Group

Appendix E.3

July 6, 1993

Lorraine LeBoldus
Calgary Health Services
320- 17th S.W.

Dear Lorraine:

To complete my Master's thesis in Community Health Science, I am conducting a community needs survey for continuing medical education in geriatrics. The study is supported by the Department of Continuing Medical Education (CME) at the University of Calgary. Dr. Margaret Russell and Dr. John Parboosingh are my advisors for this study.

Purpose of the research

To determine the perceived priorities and needs for geriatric education for physicians, I am contacting key persons in the community who are involved with the programs or services for the elderly.

Would you assist us by participating in this research?

Please complete and return the enclosed anonymous questionnaire in the self addressed envelope. All information will be kept strictly confidential.

Benefits of participation.

While you may not directly benefit from participating in this research, the results of the study will be used to make physician education more responsive to the health needs of seniors. This should result in better care for senior citizens. After the study is completed (approximately 12 months) you may obtain results of the study by contacting my office at 228-4844.
If you have any concerns or questions about the questionnaire, do not hesitate to contact me at 228-4844.
The questionnaires have been numbered for the purpose of calculating the response rate.

Thank you,

L. Pereles MD CCFP
Chairperson, Geriatric Physician Education Group

Appendix F

Template for patient response card

No.

_____ Yes I would like to participate in this research project

My name is _____

Please contact me at _____ to arrange an interview time. (telephone no.)

_____ No I do not wish to participate in this research