

C.1

A DESCRIPTIVE STUDY OF THE PERCEPTIONS  
OF YOUNG ADULTS WITH ASTHMA:  
THEIR HEALTH PROBLEMS, ASSOCIATED LEARNING NEEDS,  
AND RELATIONSHIPS BETWEEN SELECTED DEMOGRAPHIC AND  
PERSONAL VARIABLES, AND PERCEIVED LEARNING NEEDS

By

HEATHER MARGARET RICHARDSON  
B.S.N., The University of British Columbia, 1981

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF SCIENCE IN NURSING

in

THE FACULTY OF GRADUATE STUDIES  
School of Nursing

We accept this thesis as conforming  
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA  
December, 1985

© Heather Margaret Richardson, 1985

18

In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of School of Nursing

The University of British Columbia  
1956 Main Mall  
Vancouver, Canada  
V6T 1Y3

Date Jan 20/86

## ABSTRACT

The incentive for doing this research originated from a concern for the provision of relevant health education for young adults with bronchial asthma of the extrinsic type. The study describes the perceptions of young adults with asthma in respect to their health problems related to asthma, their associated learning needs, and determines relationships between selected demographic and personal variables and perceived learning needs.

Survey methodology was used. Twenty young adult participants, between the ages of 20 - 45 and who had extrinsic asthma, were interviewed. The U.B.C. Model for Nursing (1980) facilitated the attainment and organization of participant perceptions. Statistical analysis was done using Fisher's Exact Test to determine relationships between selected demographic and personal variables, and perceived learning needs.

The findings revealed that the common health problems of young adults with asthma were: lifestyle, symptom control, self-esteem, social isolation, adjustment, psychological and intervention problems. Common learning needs were associated with symptom control (the majority of the learning needs

identified), lifestyle, and interaction problems. The learning needs described did not however address the multiple health problems which had been identified by the sample. Lastly, relationships existed between two personal variables (length of time diagnosed and how frequently professional health care due to asthma was sought), and one demographic variable (having dependents--children) and perceived learning needs.

These findings suggested the following conclusions: that the health problems and learning needs of young adults with asthma of the extrinsic type were multiple, pervasive and diverse (this finding is congruous with what has been established in the allied health literature); that the diversity in perceived learning needs, among the participants, were statistically related to personal or demographic variables; and finally that there was some incongruence between the health problems experienced by the participants and their associated learning needs.

## TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT.....	ii
LIST OF TABLES.....	viii
ACKNOWLEDGEMENTS.....	x
CHAPTER ONE	
Background to the Problem.....	3
Purpose.....	7
Problem Statement.....	7
Definition of Terms.....	8
Assumptions.....	9
Limitations.....	10
CHAPTER TWO	
Review of Literature.....	11
Overview.....	11
Problems of Individuals with Asthma and or Chronic Obstructive Pulmonary Disease as Documented by Allied Health Professionals.....	11
Learning Needs of Patients, as Identified from the Patients' Perspective.....	16
Relationships Between Selected Demographic and Personal Variables and Perceptions of Learning Needs Among Patients.....	20

	<u>Page</u>
Current Health Education Focus by Nurses for Persons with Asthma and/or Chronic Obstructive Pulmonary Disease.....	23
Summary.....	27
 CHAPTER THREE	
Methodology.....	29
Overview.....	29
Instrument Construction.....	29
Criteria for Selection of Participants.....	32
Population and Sample Selection Procedure....	32
Data Collection.....	34
Data Analysis.....	36
Ethical Consideration.....	37
A. Informed Consent and Risk Benefit.....	37
B. Privacy.....	38
C. Confidentiality.....	38
Summary.....	39
 CHAPTER FOUR	
Presentation and Analysis of Findings.....	40
Overview.....	40
Demographic and Personal Information.....	41
Health Problems of Young Adults.....	47
Health Problems Related to the Need For Safety and Security.....	47
Health Problems Related to the Need For Balance Between Production and Utilization of Energy.....	51

	<u>Page</u>
Health Problems Related to the Need For Mastery.....	53
Health Problems Related to the Need For Respect of Self, By Self and Others....	57
Health Problems Related to the Need For Love, Belongingness and Dependence.....	62
Health Problems Related to the Need For Intake of Food and Fluid: Nourishment..	64
Health Problems Related to the Need For Intake of Oxygen.....	66
Health Problems Related to the Need For Stimulation of the Senses.....	67
Health Problems Related to the Need For Collection and Removal of Accumulated Waste.....	69
Summary.....	80
Learning Needs of Young Adults with Asthma...	80
Overview.....	80
Learning Needs Related to the Need For Safety and Security.....	81
Learning Needs Related to the Need For Balance Between Production and Utilization of Energy.....	83
Learning Needs Related to the Need For Mastery.....	84
Learning Needs Related to the Need For Intake of Food, Fluid: Nourishment.....	85
Learning Need Related to the Need For Love, Belongingness and Dependence.....	87
Learning Need Related to the Need For Intake of Oxygen.....	88
Summary.....	93

	<u>Page</u>
Relationship Between Selected Demographic and Personal Variables.....	95
Overview.....	95
Summary.....	100
 CHAPTER FIVE	
Summary, Conclusions, Implications and Recommendations.....	101
Overview.....	101
Summary and Conclusions.....	101
Implications for Nursing Practice.....	105
Implications for Nursing Education.....	109
Recommendations for Further Research.....	110
Summary.....	111
REFERENCES.....	112
 APPENDICES	
A - Demographic and Personal Interview Schedule.....	117
B - Interview Schedule.....	119
C - Letter to the Physician.....	120
D - Physician Consent.....	122
E - Cover Letter to Participants.....	123
F - Participant Consent.....	125



## LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Percentage and Frequency Distribution in Relation to Demographic and Personal Variables.....	42
2	Percentage and Frequency Distribution of Health Problems Related to the Need For Safety and Security.....	48
3	Percentage and Frequency Distribution of Health Problems Related to the Need For Balance Between Production and Utilization of Energy.....	52
4	Percentage and Frequency Distribution of Health Problems Related to the Need For Mastery.....	54
5	Percentage and Frequency Distribution of Health Problems Related to the Need For Respect of Self, By Self and Others.....	58
6	Percentage and Frequency Distribution of Health Problems Related to the Need For Love, Belongingness and Dependence...	62
7	Percentage and Frequency Distribution of Health Problems Related to the Need For Intake of Food and Fluid: Nourishment.....	64
8	Percentage and Frequency Distribution of Health Problems Related to the Need For Intake of Oxygen.....	67
9	Percentage and Frequency Distribution of Health Problems Related to the Need For Stimulation of the Senses.....	68
10	Percentage and Frequency Distribution of Health Problems Related to the Need For Collection and Removal of Accumulated Waste.....	70
11	Percentage and Frequency Distribution of Learning Needs Related to the Need For Safety and Security.....	81

Page

12	Percentage and Frequency Distribution of Learning Needs Related to the Need For Balance Between Production and Utilization of Energy.....	84
13	Percentage and Frequency Distribution of Learning Needs Related to the Need For Mastery.....	85
14	Percentage and Frequency Distribution of Learning Needs Related to the Need For Intake of Food, Fluid: Nourishment...	86
15	Percentage and Frequency Distribution of Learning Needs Related to the Need For Love, Belongingness and Dependence...	87
16	Percentage and Frequency Distribution of Learning Needs Related to the Need For Intake of Oxygen.....	88
17	Relationship Between Length of Time Diagnosed and the Learning Need Pathophysiology of Asthma.....	96
18	Relationship Between Length of Time Diagnosed and the Learning Need Perceptions of Others with Asthma and Their Coping Strategies.....	97
19	Relationship Between How Often Professional Health Care Due to Asthma is Sought and the Learning Need Long-Term Prognosis of Asthma.....	98
20	Relationship Between Having Dependents (Children) and the Learning Need Hereditary Factors in Asthma.....	99

## ACKNOWLEDGEMENTS

I extend my sincere appreciation to the members of my thesis committee, Dr. Kathleen Simpson, chairperson, and Jo Ann Perry, M.S.N., for their guidance, challenges and support.

I also wish to extend my gratitude to the twenty participants who so willingly gave of their time, and shared their perceptions for the purpose of contributing to this research study.

Finally, I am especially grateful to my family and friends for their consistent encouragement throughout the writing of this thesis.

## CHAPTER ONE

Bronchial asthma is a chronic illness classified as one of the three chronic respiratory problems referred to as Chronic Obstructive Pulmonary Disease (Luckmann & Sorensen, 1980; Sexton, 1981). In 1983, the prevalence of asthma among Canadians was 2.1 percent (Abelson, Paddon & Strashmenger, 1983), and in 1982, the mortality rate due to asthma was 474 per 100,000 population (Stats. Can., Mar. 1984). Since asthma is a chronic illness, it has specific implications first, for those experiencing it, and second, for nurses providing health education for individuals with asthma.

The life-long or long-term nature of asthma characteristically creates multiple and complex problems associated with asthma which may disrupt established daily living patterns. It therefore becomes essential for persons with asthma to learn how to care for themselves on a daily basis. Strauss and Glaser (1975) specifically emphasized that those with a chronic illness require in-depth health education to learn how to competently manage their problems associated with chronic illness. For example, mastery of new self-care skills, and of new daily living

patterns is frequently requisite before asthma can be successfully assimilated into daily living, and an optimal level of health maintained. Ultimately, those with asthma need to learn how to become the primary decision-makers regarding their health care (The Commission on Chronic Illness, 1959; Strauss & Glaser, 1975; Van Dam Anderson & Bauwens, 1981; Dimond & Jones, 1983; Miller, 1983).

Nurse educators such as Redman (1981), Bille (1982), Rankin and Duffy (1983), and Squyres (1980), have contended that nurses can assist individuals to cope successfully with their problems in the provision of health education. Individuals frequently depend on nurses to assist them with their health problems; moreover, several influential nursing educators hold that health education is one of the primary functions of nurses (Bille, 1982; Redman, 1980). Therefore, professional nurses need to be expert health education teachers before accountability and responsibility in clinical practice may be assured. Specifically, in teaching persons with asthma how to care for themselves on a daily basis, it is essential that nurses have a comprehensive knowledge of the problems experienced in association with asthma, and of the unique learning needs of individuals with asthma.

### Background To The Problem

Common problems of individuals with asthma frequently may include environmental control to reduce allergen and irritant contacts; changes in intimate and social relationships; changes in lifestyle and customary roles; and problems with adherence to medication regimens (Luckman & Sorensen, 1981; Sexton, 1981). However, to provide health education which has distinct value and usefulness in assisting persons with asthma to cope with their problems, nurses must make certain their teaching is founded on a comprehensive understanding of the specific health problems experienced by persons and their learning needs (Rankin & Duffy, 1983; Redman, 1976; Bille, 1982; Squyres, 1980).

Several nurse educators, such as Rankin and Duffy (1983); Redman (1976, 1981); Barry (1982); and Bille (1982) have contended, however, that the content in health education prepared by nurses is frequently planned according to nurses' perceptions of the learning needs of individuals, rather than on individuals' perceptions of what is most critical for them to learn. This may have significant bearing on the usefulness of health education provided by nurses.

For example, Barry (1982) and Lauer, Murphy, and Powers (1982) claimed that nurses often prepare health education which is standardized and prescriptive. Subsequently, teaching provided by nurses frequently emphasizes disease processes and treatments modalities rather than directing appropriate attention to fostering new coping behaviors which are most needed to assist individuals with the actual health problems they experience. Hence, the health education provided may not address the most crucial problems and learning needs of persons as they perceive them.

Sociologists such as Strauss and Glaser (1975) conceded that each chronic illness presents common types of problems; it may therefore be assumed that common types of problems exist among those with asthma. Further, medical sociologists, other sociologists, and individuals in the discipline of medicine, maintain that illness is perceived and experienced within the context of situational factors present in the person's life. An explanation for diverse perceptions (cognitive appraisal) in the illness experience was proposed by Moos, who stated,

This cognitive appraisal, the perception of tasks involved, and the selection of relevant coping skills are influenced by three sets of factors: background and personal characteristics, illness-related factors, and features of the physical and sociocultural environment. (1977, p. 8)

In view of this explanation, it may be assumed that personal characteristics, as well as illness-related factors, may influence the perceptions of persons with asthma. Therefore, among persons with asthma, perceptions related to their illness may vary according to several influential factors. This may have specific significance for nurses concerned with planning meaningful health education which best addresses persons' health problems and learning needs. Although Strauss and Glaser conceded that nurses and other health care professionals have considerable knowledge of the problems associated with chronic illness, they nevertheless maintained that

. . . to understand how a given disease affects the daily experiences of the afflicted persons, one is likely to find better information in the occasional autobiographics written by patients than in the standard literature about their diseases.  
(1975, p. 7)

Finally, Bille (1982) stressed that individuals know their environment better than anyone; therefore, they may best identify their learning needs.

The cognitive-field theory of learning, a major contemporary learning theory, contends that for teaching to be meaningful, it must be planned in



accordance with learner perceptions of their situation. Cognitive-field learning theorists specifically hold that obtaining this information is crucial to planning teaching which is relevant to the learners situation, because the teaching would be congruent with the learner's perception of their needs, goals, abilities and situational forces (Bigge, 1982). These learning theorists also premise, as do several medical sociologists, that perceptions are directly associated with variables in persons' situations.

Cognitive-field learning theorists are learner-centred, and additionally stress that in the teaching and learning process, persons need to be active participants based on the premise that learners are active problem-solvers and insightful thinkers capable of determining their situation (Ornstein, 1977; Swanson, 1980; Hilgard & Bower, 1975). It may be assumed in this study that individuals with asthma can perceive their health problems associated with asthma and their learning needs in accord with their perceptions of their situation.

In summary, what has been documented by some sociologists, medical sociologists, nurse educators, and cognitive-field learning theorists, provides the

rationale that in the provision of meaningful health education nurses need to obtain knowledge of persons' perceptions of their health problems, learning needs, and variables which may be influential to learning need perceptions. This study was designed to explore the perceptions of young adults with asthma. The young adult age group was selected by the investigator because bronchial asthma is one of the most common chronic health problems among young adults (Sexton, 1981).

#### Purpose of the Research Study

The purpose of this research study was to focus on young adults with asthma and to identify and describe first, young adult perceptions of their health problems related to asthma; second, their perceptions of their learning needs; and third, to determine relationships between selected demographic and personal variables and perceived learning needs.

#### Problem Statement

In the provision of relevant health education for young adults with asthma, it is essential that the teaching provided by nurses is founded on a thorough understanding of how this client group perceives their health problems and learning needs.

This study was conducted to obtain knowledge of the perceptions of young adults with asthma in respect to their health problems associated with asthma, their learning needs, and to identify relationships between learning needs and selected demographic and personal variables.

The definition of terms, assumptions and limitations pertaining to the study are as follows:

#### Definition of Terms

##### Bronchial Asthma:

Is a disease characterized by an increased responsiveness of the trachea and bronchi to various stimuli (often allergens) and manifested by widespread airway narrowing that changes in severity, either spontaneously or as a result of therapy; presents as episodic dyspnea, cough, and wheezing. (Blakiston, 1979, p. 128)

##### Extrinsic Asthma:

Is a specific type of asthma caused by inhalants, food, or drugs. (Blakiston, 1979)

##### Young Adult:

Is an adult between the ages of 20-45.

##### Basic Human Needs:

Are innate, and have been determined as needs for: mastery; love, belongingness and dependence; respect for self, by self and others; elimination; nourishment; safety and security; balance between rest and activity; intake of oxygen; stimulation of the senses. (The U.B.C. Model Committee, 1980)

### Health Problems:

Are what persons perceive as their difficulties and/or concerns in daily living, due to the impact of asthma, and in association with basic human needs.

### Learning Needs:

Are what persons perceive that they need to know and do to enable them to cope with an associated health problem.

### Health Education:

Is a systematically planned learning experience which is designed on the basis of an assessment of persons' perceptions of their health problems and learning needs, and characteristics of the group.

### Demographic and Personal Variables (Appendix A):

Are potential intervening forces which may influence persons' perceptions. Demographic variables are sex, dependents, age, occupation, education and having confidants (such as a spouse, friends and relatives). Personal variables are illness-related forces.

### Assumptions

1. It is assumed that young adults who have asthma can perceive their health problems related to asthma, and communicate them to others.
2. It is assumed that young adults who have asthma can perceive their learning needs in relation to perceived health problems, and can communicate them to others.

Limitations

1. The generalizability of the findings may be limited by a small sample size, and a non-probability convenience sample.

## CHAPTER TWO

### Review of Literature

#### Overview

The purpose of the following literature review is to provide a frame of reference for the research problems in this study. It is organized into four sections, and summarizes the impact of asthma and/or chronic obstructive pulmonary disease on individuals as documented by allied health professionals; current research which investigated chronically ill patients' perceptions of their learning needs; research studies which have investigated the relationships between selected demographic and personal variables and the perceived learning needs of patients; and finally, the current health education focus provided by nurses for those with asthma and/or chronic obstructive lung disease.

#### Problems of Individuals with Asthma and/or Chronic Obstructive Pulmonary Disease, as Documented by Allied Health Professionals

It appears that the problems of individuals with asthma and/or chronic obstructive pulmonary disease have been identified by allied health professionals,

either within the context of pathophysical, psychological or social symptomatology, or within the context of the impact of asthma on aspects of daily living. What follows summarizes the problems of individuals with asthma and/or chronic obstructive lung disease, as they have been described within these contexts.

Howe, Dickason, Jones, and Snider (1984) identified several of the physical symptoms experienced in asthma. They were: nasal congestion and sneezing, shortness of breath, wheezing accompanied by anxiety and restlessness, altered vital signs such as an increased heart and respiratory rate, noticeable sweating and perspiration, coughing, a productive cough with mucus, nasal flaring, use of excessory muscles of respiration, pale and bluish appearance to the skin, and fatigue.

In a case study presentation, Smith (1982) described the problems of a 25 year old during an asthma attack. In summary, the problems diagnosed were: breathlessness, fear and anxiety, exhaustion, inability to talk, inability to re-position oneself, nausea and poor appetite, dehydration, allergy to feathers, risk of pneumothorax and/or cardiac arrest, and possible chest infection.

Gershwin (1981), Stern (1981), Young (1980), and Hume (1970) have claimed that the pathophysiological problems associated with asthma can induce problems of a psychological nature. Hudgel and Madsen (1980), Sexton (1981), Gershwin (1981), Burns (1982), and Creer, (1979) have identified the psychological problems and the social problems manifested in persons who have asthma. The problems identified were as follows: anxiety and agitation, feelings of fright, panic, helplessness, irritability, restlessness and excessive worrying, depression, reduced self-esteem, social isolation and stigma. Creer (1979) claimed that feelings of depression, and decreased self-esteem may be linked to the painful losses experienced by those who have a chronic obstructive pulmonary disease. For instance, they may be associated with the loss of familiar roles and customary patterns of daily living.

Creer (1979) proposed that the experience of social isolation may be associated with the need to restrict physical and social activity during an exacerbation of asthma symptoms. In addition, Creer (1979) suggested that the social stigma often connected with asthma may have evolved in society because of the belief by some that psychological factors are the primary triggering factors in asthma. Creer (1979)



also speculated that asthma symptoms can be used for personal gain in some situations. As a result, asthma may evoke feelings of frustration and hostility in those close to persons with asthma.

Chalmer's (1984) research study determined that the major problems of persons with asthma, chronic bronchitis and emphysema are breathlessness and the inevitable decrease in energy. This study illustrated that breathlessness and decreased energy can affect all aspects of daily living, for example, the ability to work, to do household tasks, and to travel. In addition, Chalmers claimed that breathlessness and decreased energy may interfere with the individuals' ability to communicate. The research findings additionally indicated that persons with a chronic obstructive pulmonary disease frequently experienced changed interpersonal relationships with their spouse and/or significant others, and changed social relationships. It was additionally found that a primary concern of those with a chronic obstructive pulmonary disease was that they maintain their customary role within their family and social realm.

Strauss and Glaser (1975) suggested a systematic means for conceptualizing the common problems generally experienced by the chronically ill

in their daily lives. The common problems which were identified included the following:

1. The prevention of medical crises and their management once they occur.
  2. The control of symptoms.
  3. The carrying out of prescribed regimens and the management of problems attendant upon carrying out the regimen.
  4. The prevention of, or living with, social isolation caused by lessened contact with others.
  5. The adjustment to changes in the course of the disease, whether it moves downward or has remissions.
  6. The attempts at normalizing both interaction with others and style of life.
  7. Funding--finding the necessary money--to pay for treatments or to survive despite partial or complete loss of employment.
- (1975, p. 7)

In summary, a review of the literature of the problems of persons with asthma and/or chronic obstructive pulmonary diseases revealed that primary concerns of individuals with asthma and/or chronic obstructive pulmonary disease were concerns in respect to their customary patterns of living and interpersonal relationships within their families and social milieux.

These findings are consistent with some of the key problems of the chronically ill in daily living, as

presented by Strauss and Glaser (1975). The identification of problems within a pathophysiological, psychological, and social symptomatology context does provide some knowledge of the impact of asthma; it nevertheless has some limitations as a means of developing a comprehensive knowledge of the problems of persons with asthma. A more in-depth understanding of their problems may be gained by obtaining their perceptions of their problems associated with asthma. The autobiographical approach may provide more knowledge of their problems, experienced on a daily basis, and as described within their context of understanding.

#### Learning Needs of Patients, as Identified from Patients' Perspectives

There appears to be a paucity of information regarding the learning needs of patients with asthma, as identified from their perspective. Some research has focused on various patient populations and attempted to identify patient learning needs for health education from their unique perspective. These studies offer a frame of reference for this study and are summarized in what follows.

Forsyth, Delaney and Gresham (1984) investigated the learning needs of patients who were experiencing

chronic illness, from their perspective. Data were collected by using unstructured interviews. The study's findings illustrated that patients identified the following learning needs: how to maintain themselves in challenging situations; what home remedies can work for them; and what their bodies will tolerate in terms of diet, drugs, treatment and activity. Patients additionally expressed a desire for particular types of information. For example, they sought information . . .

which had direct utility in solving what they perceived as problematic . . . patients were not receptive to standard patient education formats. Rather, they appreciated readings and information on self-help groups, the opportunity to talk to other hospitalized patients. (Forsyth et al., 1984, p. 187)

Barry (1982) designed a factor searching study to investigate the learning need perceptions of adults with epilepsy. A needs assessment served as a basis for an interview consisting of 24 structured questions which were grouped into the following four sections: coping, seizures, medications, and community resources. Other questions were constructed to elicit information about the patients' knowledge level of their health problems, and several semi-structured questions were also designed to specifically obtain

patients' perceptions of their learning needs. The following are examples of the type of semi-structured questions asked: "What problems, concerns, worries, or questions do you have with regard to your seizures? In your opinion, what information should people with epilepsy know about?" (Barry, 1982, p. 31).

The findings of this study indicated that patients perceived that their major learning need was to obtain information on how to alter their lifestyle, so that they might be better able to cope with their health problems.

The research studies of Gerard and Peterson (1984) and Casey, O'Connell and Price (1983) were designed to determine how nurses' perceptions of patients' learning needs compared to patients' perceptions.

Gerard and Peterson (1984) examined nurses' and patients' perceptions of the learning needs of cardiac patients, during their recovery from a myocardial infarction in the coronary care unit and after their discharge from the unit. Nurses and patients ranked the importance of information items in accordance with their perceptions of needs for specific types of information. The findings illustrated that in the coronary care unit the most important learning need categories identified by patients were: risk factors,

medications, psychological factors, activity, miscellaneous needs, the coronary care unit, and anatomy and physiology.

Casey et al. (1983) compared nurses', patients', and physicians' perceptions of the learning needs of patients after a myocardial infarction. The methodology used was similar to that of Gerard and Peterson's (1984) study. The information items were tabulated in accord with the following learning need content categories: nutrition; recognition and changing of risk factors; medications; recreational (work activities); etiology of heart attacks; and dealing with feelings, tension, and stress. The patients themselves believed that how to deal with their feelings, tension, and stress was their most important learning need. Patients additionally identified the following as other important learning needs: information related to the signs and symptoms of a heart attack; how to modify contributory personal factors; and information related to the names, dosage, and side effects of medications.

In summary, it appears that the learning needs identified by patients focused on what they perceived that they needed to learn to enable them to cope, on a daily basis, with the multifaceted problems associated

with their particular illness. Research studies which were designed to determine the learning needs of persons with asthma, as identified from their perspective, may provide some insight into the learning needs of this specific chronically ill patient group.

#### Relationships Between Selected Demographic and Personal Variables and Perceptions of Learning Needs Among Patients

What follows provides a brief summary of the demographic and personal variables that have been selected to obtain information about the populations in research studies which investigated patients' perceptions of their learning needs. In addition, this section will summarize the findings in current studies which have investigated relationships between selected demographic and personal variables, and perceived learning needs of patients.

Barry (1982) investigated the perceived health education learning needs of persons with epilepsy. The demographic and personal variables selected to obtain information about the sample included the following: age, sex, marital status, employment, education, the number of years the client has been diagnosed with epilepsy, the frequency of seizures, the length of time

care had been provided by a seizure clinic, and the number of hospitalizations in the in-patient epilepsy unit the client had required.

Dodge investigated relationships between selected demographic and personal variables, and perceived learning needs of patients. The selected demographic and personal variables included: sex, education, age, the nature of the illness and the length of time involved with the illness, for example, whether the patients' illness was of long or short term duration. The findings demonstrated that several significant differences existed between the selected variables and patients' perceptions of their learning needs within all of the selected variable categories. For instance, regarding differences related to age, Dodge reported that young adult patients were more concerned than older ones with knowing how well they were recovering and when they would reach various subgoals in the recovery process.

Casey et al. (1983) studied the perceptions of health education learning needs of patients after a myocardial infarction. A chi-square analysis was done to determine if relationships existed between patients' perceptions of their learning needs, and sex, age, and the number of myocardial infarctions which the patients



the number of myocardial infarctions which the patients had experienced. One significant difference was found between men and women: men believed that it was more important to know the locations, structure, and function of the heart than women did. Finally, three significant differences were determined between the perceived learning needs of first time myocardial infarction patients, compared to those who were recovering from their second or third myocardial infarction.

In summary, this review of studies which investigated relationships between selected demographic and personal (illness-related) variables, and perceived learning needs demonstrates that selected variables may have an impact on patients' perceptions of their learning needs. These findings lend some support to the assumptions held by medical sociologists and cognitive learning theorists, who espoused that situational forces can influence persons' perceptions. The variables selected for relationship comparisons in these studies offered direction for the selection of demographic and personal variables for relationship comparisons in this study.

Current Health Education Focus by Nurses for Persons  
with Asthma and/or Chronic Obstructive Pulmonary  
Disease

Rifas (1983) examined the problems of persons with asthma and proposed a health education teaching plan which included the following: how to use a bronchodilator inhaler; how to prevent another attack; how to manage environmental control (how to keep the home environment dust and mold free, how to keep circulating pollen to a minimum, what fumes and irritating chemicals to avoid as a consumer), identification of common products, such as aspirin and tartrazine food colouring, which may trigger an attack; and how to recognize the signs and symptoms of chest infection.

Hudgel and Madsen (1980) maintained that health education for persons with chronic asthma should include the basic pathophysiology of an asthma attack, and the principles of medication management, such as what side effects to look for, and how and when to use medication. Hudgel and Madsen (1980) claimed that the most significant part of health education rests in teaching patients how to recognize when to seek medical attention for unabated bronchoconstriction. They also

pointed out that in conjunction with these recommendations for teaching, additional services such as: "immunotherapy, physical therapy, dietary services and psychosupportive help" (1980, p. 1795) could also be included.

Kirilloff and Tibbals (1983) developed a comprehensive guide for nurses which summarized pharmaceutical information pertaining to the major drugs groups used to either prevent or control asthma. This article recommended health education content which could be of benefit to persons on medication regimens. Kirilloff and Tibbals (1983) proposed that health education should include information on the following: drug side effects, explanations to patients as to why they are taking a particular medication, the expected benefit, proper dosage, route, the time schedule for medication taking, special foods or fluids which are either recommended to eat or to avoid in combination with particular medications, as well as information on specific criteria to follow when shortness of breath is not relieved.

Kaufman and Woody (1980) claimed that patients with a chronic obstructive pulmonary disease can live at a higher level of wellness through health teaching.

Hence, they designed a health education program specifically for chronic obstructive pulmonary disease patients which included the following content areas: bronchodilator therapy, pulmonary protocol (steam inhalation, postural drainage with percussion, effective coughing technique, diaphragmatic breathing exercises), hydration management, environmental control management, relaxed breathing positions.

D'Agostino's (1984) health education program for persons with chronic obstructive pulmonary disease emphasized preventative management. She proposed that teaching should be directed toward the following: how to houseclean so that irritants and allergens may be removed, specific suggestions on how to clean particular rooms such as the bedroom, information on the appropriate house temperature, humidity, and specific irritants which must be avoided.

Martindale's (1984) research study proposed to evaluate an asthma health education program, which was currently taking place in New Zealand. The rationale for the study was that improvement in the health education available to persons with asthma was needed. It specifically included the following topic areas: the anatomy and physiology of the respiratory system, a

simplified explanation of the pathophysiology of asthma, signs and symptoms of an acute attack, assessment of the severity of an attack, medication-taking knowledge, crisis management, technique for use of inhaler and peak flow meter, diaphragmatic breathing, relaxation positions, postural drainage, forced expiration, the benefits of sports and exercise, a discussion of trigger factors, and prevention of asthma. Also included in this health education programme were any other asthma related topics which participants stated they wished to discuss.

Finally, Muzzuca investigated the value of health education for those experiencing a chronic illness problem. The findings of this study indicated that "patients need to know less about the pathophysiology of their disease, and more about integrating new demands into their daily routine" (1982, p. 528).

In summary, the health education focus for those with asthma and chronic obstructive pulmonary diseases implies that the health education content planned by nurses may be standardized, "pre-packaged," and medicocentric, and demonstrates a lack of focus on learning needs related to their social and

psychological health problems. For instance, current health education characteristically focuses on explanations of the pathophysiology of asthma, information of treatment regimens such as how to take medications, and how to manage environmental control.

### Summary

A review of the literature revealed the following. First, the problems of individuals with asthma and/or chronic obstructive pulmonary disease are multiple and pervasive, and they have been described within various contexts of understanding by allied health professionals. However, a more comprehensive knowledge of the problems of persons with asthma may be gained by obtaining their perceptions of their problems. Second, it implied that the primary learning needs of patients with a chronic illness focused on what they perceived that they needed to learn to cope with problems experienced in association with their particular chronic illness. Third, research studies illustrated that relationships may exist between selected demographic and personal variables, and the perceived learning needs of patients. Fourth the health education focus provided by nurses may not be directed toward the most crucial learning needs of

persons with asthma. Specifically, the health education focus does not appear to address the psychological and social problems which may be experienced by those with asthma.

## CHAPTER THREE

### Methodology

#### Overview

A descriptive research design using survey methodology was used to address the research problem. Polit and Hungler maintained that a descriptive design is appropriate when the researcher wishes to "summarize the status of some phenomena of interest as they currently exist" (1983, p. 184). This chapter summarizes the following: instrument construction; criteria for the selection of participants; population and sample selection procedure; data collection; data analysis; and finally, ethical considerations in this study.

#### Instrument Construction

Two questionnaires were used in the survey. The first questionnaire (Appendix A), consisted of an interview schedule which was constructed to collect demographic and personal (illness-related) information. Current research which has investigated relationships between selected demographic and personal variables, and perceived learning needs of patients;



the investigator's nursing knowledge of illness-related factors which may have an influence on the impact of asthma on persons; and in collaboration with a respiratory clinical nurse specialist, were instrumental in constructing the demographic and personal interview schedule for this study. Selected demographic variables were: (1) sex, (2) having dependents, (children) (3) age, (4) occupation (5) highest education attained, (6) having confidants, and (7) selected illness-related personal variables (Appendix A, 7-19 inclusive).

The second questionnaire, a semi-structured interview schedule (Appendix B), consisted of open-ended questions to obtain data on the perceptions of young adults with asthma. Polit and Hungler (1983) maintained that open-ended questions are an appropriate means to obtain personal accounts and the perceptions of others. In this study, The U.B.C. Model for Nursing (1980) was selected by the investigator to obtain the perceptions of young adults with asthma. This nursing model was used to facilitate the construction of the second questionnaire for the purposes of obtaining the perceptions of young adults in this study. This particular nursing conceptual framework was chosen because it provides a systematic and comprehensive data

collection tool for assessing individuals and obtaining their perceptions, within the context of the "whole" integrated person, and a behavioral system. In addition, many of its key concepts, in respect to explaining human behavior, are congruent with the major constructs within the cognitive field theory of learning.

The specific key concepts within The U.B.C. Model for Nursing (1980) which facilitated the construction of this interview schedule were the following:

1. An individual has nine basic human needs, each represented by a subsystem.
2. Needs, need-related goals, abilities, sociocultural, impersonal and personal forces, within each subsystem influence individual perceptions of need satisfaction.
3. All subsystems, each representing one basic human need, are interdependent and interacting.
4. An individual responds as a behavioral system.

These assumptions directed the investigator to construct questions which addressed the impact of asthma on young adults in association with the nine basic human needs premised within The U.B.C. Model for Nursing (1980). Therefore, in constructing a questionnaire which takes into account basic human

needs, within the context of other specific key assumptions in The U.B.C. Model for Nursing (1980), it was assumed that this questionnaire would ensure a comprehensive and systematic means of obtaining the perceptions of young adults with asthma.

### Criteria for Selection of Participants

The criteria for selection of participants in this study included:

1. Persons must speak English.
2. Young adults diagnosed with extrinsic asthma, and between the ages of 20 - 45 years.
3. Young adults who have asthma, but are without other major illnesses.

### Population and Sample Selection Procedure

Participants were selected from an out-patient population at a respiratory unit in a major teaching hospital in Vancouver, British Columbia. Twenty participants meeting the criteria were recruited using the following procedure.

1. The investigator initially explained the purpose of the study and selection criteria to three respirologists (physicians), as well as to respiratory technologists and receptionists,

employed at the respirology unit. The investigator gave each of these individuals, a copy of the "cover letter to physicians" (Appendix C), which explained the purpose of the study and the selection criteria.

2. The investigator then sought the permission and signed consent (Appendix D) from the three respirologists, for the investigator to recruit patients from their practice.
3. It was established that recruitment would occur when prospective participants came into the unit to keep pre-booked appointments with either the respirologists or respiratory technologists.
4. The purpose of the study was to be explained, by physicians or respiratory technologists, to potential participants who met the sampling criteria. In addition to this, potential participants were given a brief verbal description of what would be required of them should they agree to participate in the study. This was explained in more detail in a cover letter (Appendix E) which was given to potential participants by a physician or respiratory technologist. The cover letter made explicit to persons that they were in no way obligated to participate in the study, and that

non-participation would not jeopardize the health care they were receiving in any way. The investigator's telephone number was provided in the cover letter (Appendix E), to allow the potential participants contact with the investigator if they wished further clarification of the study.

5. Those interested in participating in the study submitted their name and telephone number to the physician or respiratory technologist recruiters who in turn gave the names and telephone numbers of potential participants to the investigator.
6. After a one or two day interval, the investigator contacted potential participants by telephone to discuss their participation intent. If potential participants still wished to participate in this study, a time, date, and place for an interview which was convenient to the participant was established.

#### Data Collection

Initially participants were given an explanation of the purpose of the study, how data were to be collected, and were provided with a briefing of their ethical and human rights in research. Participants then signed consent (Appendix F) for participation in this study.

Data were collected by interviewing participants during one session only. Interviews occurred at the homes of participants; however, three exceptions to this occurred when participants came to the home of the investigator, because this arrangement was more convenient for them. The interviews took place in a private place, in the dining or kitchen area, where the participant and investigator could sit around a table. It appeared to the investigator that the participants were most at ease in these locations.

First, the demographic and personal interview schedule (Appendix A) was used to collect demographic and personal data. Responses were documented by the investigator and were later validated by the participant to be correct as read.

Second, using the semi-structured, open-ended interview schedule, (Appendix B) participants were interviewed by the investigator to obtain young adults perceptions of their health problems related to asthma, and their learning needs for health education. These interviews were audio-taped by using a portable tape recorder. The investigator took all necessary equipment for audio-taping to each interview. A code number only was visible on the audio tapes. Participants were given the opportunity to explore

their perceptions of their health problems related to asthma, and their learning needs for health education. Sensitivity toward the participants necessitated flexibility in questioning. The interviews continued until the question areas had been explored or the participant wished to end the interview.

### Data Analysis

The audio-tapes of the open-ended, semi-structured interview schedule (Appendix B) were transcribed for categorization after each interview. The nine basic human needs premised within The U.B.C. Model of Nursing (1980) facilitated the sub-categorization of the perceptions of young adults of their health problems related to asthma, and their learning needs for health education (The U.B.C. Model Committee, 1980). Frequency distributions were used to describe and answer the research questions. The health problems and learning needs were then categorized according to existing commonalities within and across the need categories.

Fisher's Exact Test was used to determine relationships between selected demographic and personal variables and the perceived learning needs of young adults with asthma of the extrinsic type (Zar, 1984).

A probability level of .05 was used.

### Ethical Considerations

This study was conducted with the approval of the University of British Columbia's Screening Committee for Research Involving Human Subjects. The human rights of the participants were safeguarded in the following ways:

#### A. Informed Consent and Risk/Benefit

1. The initial verbal explanations gave the clear option of participation or non-participation without prejudice.
2. The cover letter (Appendix E) stated that withdrawal from the study could occur at any time.
3. The cover letter informed participants that they could refuse to answer any questions, at any time, if they wished.
4. Potential benefits were outlined in the cover letter.
5. The cover letter stated that the investigator was available to discuss the study with potential participants to clarify any questions which they might have before making their decision about participation.



6. If during the interview participants demonstrated behavior which was or potentially could be hazardous to their health, the investigator suggested referral to appropriate health care professionals.
7. Upon completion, the thesis was made available to participants, through the libraries of the University of British Columbia.

B. Privacy

1. Privacy was insured during the interviews.  
Interviews occurred in the home of the participant or that of the investigator.

C. Confidentiality

1. Access to the data was limited to the investigator and her advisory committee.
2. Data was held in confidence and kept anonymous by the use of a coding system known only to the researcher.
3. Data was destroyed at the completion of the study.

Summary

This chapter has presented the methodology of the study and summarized the following: the instrument

construction, the criteria for the selection of participants; population and sample selection procedure; data collection; data analysis; and concluded with a summary of ethical considerations in the study.

## CHAPTER FOUR

### Presentation And Analysis Of Findings

#### Overview

The purpose of this chapter is to present and analyse the findings of this study. It is divided into four sections which summarize the following: demographic and personal information pertaining to the young adult sample population in this study; young adults' perceptions of their health problems related to asthma; their perceived learning needs; and the results of the statistical relationships between selected demographic and personal variables and perceived learning needs. Tables were used to illustrate qualitative information, descriptive statistics, and statistical analysis results. An analysis of the findings occurs at the end of each section.

The basic human needs premised within The U.B.C. Model for Nursing (1980) provided need categories for the sub-categorization of related health problems and learning needs which facilitated the presentation and

analysis of the findings. It should be pointed out that within this nursing conceptual model, all nine subsystems each representing one basic human need are considered interrelated and interdependent. Hence, it did not necessarily provide a mutually exclusive approach to data analysis.

### Demographic and Personal Information

#### Overview

Twenty young adults who met the sampling criteria participated in this study. All participants in this study had asthma of the extrinsic type; therefore, the sample was homogeneous in this respect. The demographic and personal data collected were collapsed into two classification ranges. This organization of the data was necessary prior to investigating relationships between selected demographic and personal variables and perceived learning needs. Table 1 summarizes percentage and frequency distributions related to demographic and personal data pertaining to the young adult population in this study.

Table 1

Percentage and Frequency Distribution in Relation to  
Demographic and Personal Variables

Demographic and Personal Variable	Sample	
	Percentage %	N=20 <u>n</u>
<hr/>		
Demographic Variable		
1. Sex		
Males	25	5
Females	75	15
2. Has dependents		
Yes	55	11
No	45	9
3. Age		
20 - 30 years	50	10
31 - 45 years	45	9
4. Occupation		
Professional	20	4
Non-Professional	80	16

Table 1 continued . . .

Demographic and Personal Variable	Sample	
	Percentage %	N=20 <u>n</u>
5. Highest Education Attained		
Partial secondary school education or completed same	40	8
Partial college or university education or completed same	60	12
6. Has confidants		
Yes	80	16
No	20	4
Personal Variables		
7. Length of time diagnosed with asthma		
Less than 1 year to 5 years	35	7
Six years to 30 years	65	13
8. Seasonally-related precipitation of asthma		
Occasionally or Yes	50	10
No	50	10

Table 1 continued . . .

Demographic and Personal Variable	Sample	
	Percentage %	N=20 <u>n</u>
9. Interference of asthma in daily activities		
Seldom or mildly	55	11
Moderately or severely	45	9
10. Hospitalization because of asthma		
Yes	65	13
No	35	7
11. Frequency of hospitalization		
Occasionally	25	5
Several times	40	8
12. Number of medications taken for asthma		
0 - 2	60	12
3 - 6	40	8

Table 1 continued . . .

Demographic and Personal Variable	Sample	
	Percentage %	N=20 <u>n</u>
13. Asthma medications prescribed		
Have not been prescribed, or when asthma symptoms exacerbate	20	4
When asthma symptoms exacerbate and daily on a regular basis	80	16
14. Number of allergens or irritants identified		
0 - 4	50	10
5 - 8	50	10
15. Treatment prescribed other than medications for asthma		
Yes	10	2
No	90	18

Table 1 continued . . .



Demographic and Personal Variable	Sample	
	Percentage %	N=20 <u>n</u>
16. Frequency health care by physician due to asthma is sought		
Occasionally, or 1 to 2 times per year	55	11
Three to 4 times per year	45	9
17. Smoking habit		
Yes	10	2
No	90	18
18. Exercise habits		
Daily to 3 times per week	60	12
Occasionally or not at all	40	8
19. Received health education related to asthma		
Yes	15	3
No	85	17

Table 1 illustrates that the majority of the participants were female and non-professional; had a confident; took medications for asthma when symptoms exacerbated, and on a daily basis; followed no treatment for asthma other than medication-taking; were non smokers; and had no formal health education related to asthma.

### Health Problems of Young Adults Related to Asthma

#### Overview

What follows describes health problems as they have been sub-categorized in relation to the nine basic human needs premised within The U.B.C. Model For Nursing (1980).

#### Health Problems Related to the Need For Safety and Security

A total of ten health problems were identified as related to the need for safety and security. The cumulative frequency of responses which have been identified within this need category was 62. Table 2 tabulates the health problems related to this need and illustrates percentages and frequency distributions.

Table 2

Percentage and Frequency Distribution of Health  
Problems Related to the Need For Safety and Security

Health Problem	Sample	
	Percentage %	N=20 <u>n</u>
2.1 Environmental allergen and irritant control	60	12
2.2 Upper respiratory infections control	55	11
2.3 Establishment and adherence to medication schedule to control symptoms	45	9
2.4 Concern for medication side-effects	45	9
2.5 Concern for addiction to asthma medications	40	8
2.6 Experience unpleasant psychological responses	20	4
2.7 Life expectancy concerns	15	3
2.8 Heredity factor concerns	10	2
2.9 Financial concerns	10	2

Table 2 continued . . .

---

Health Problem	Sample	
	Percentage %	N=20 <u>n</u>

---

2.10 Concern for the effects		
of asthma and medications		
during pregnancy	10	2

---

A frequently perceived health problem which has been identified, within the need category for safety and security, was the difficulty experienced by 60% (n=12) of the participants in controlling allergens and irritants in the environment. One interviewee summarized her particular difficulties in controlling allergens in her environment and in dealing with the prospects of developing more allergic responses. She stated,

So you do tend I suppose to pull back, you know, and probably don't realize it until you sit down and examine it. Occasionally, when something new (referring to the identification of a new allergen) crops up, I get feeling that the world is closing in on me and I wonder what is going to happen next. Am I going to end up in a plastic bubble or something? It is sort of scary. it seems like another little chunk of "normal life" is gone.

Other frequently mentioned health problems were the following. Some stated that they were susceptible to contracting head colds and upper respiratory infections, and needed to take special precautions in cold, damp weather. Forty-five percent (n=9) found that establishing and adhering to a medication schedule to prevent or control their symptoms was difficult. Specifically, some participants stated that organization prior to activities such as sports or travel was not easy for them. Several stated that difficulties arose in making certain their medications were readily available, and in administering preventative doses of medication before sports activities. Further, thoughtful planning was often necessary before travel to ensure that medication supplies would be sufficient, during the time away from home.

Another 45% (n=9) expressed concerns associated with the side-effects of some asthma medications they administered to control or prevent asthma symptoms. Several stated that medication side-effects such as tachycardia, shakiness, drowsiness, hyperactivity, increased moodiness, and depression frightened them. Some (n=3) mentioned that elevated doses of certain medications made them feel emotionally unstable. One

stated, "I thought I was going crazy." Another interviewee expressed her personal anguish regarding the side-effects of medications. She stated,

Sometimes I think I should just creep into a corner and wheeze in peace and not take anything because the side-effects of the drugs are often a lot worse than the actual asthma.

Another health problem frequently perceived was that the necessity of daily medication schedules initiated feelings, in some, that they were becoming addicted to their asthma medications. For example, some stated that they felt anxious if their medications were not close at hand, especially when they were short of breath, or if their medication prescription mistakenly had not been refilled. A few in fact stated that they felt like "junkies."

Twenty percent (n=4) experienced unpleasant psychological responses of fear, panic and anxiety during periods when they are short of breath. Other less frequently perceived health problems in this need category are tabulated in Table 2 (2.7 to 2.10 inclusive).

#### Health Problems Related to the Need For Balance Between Production and Utilization of Energy

Four health problems were sub-categorized in relation to the need for balance between production and

utilization of energy. The cumulative frequency of responses which have been identified within this need category was 41. Table 3 itemizes the health problems and illustrates the percentages and frequency distributions.

Table 3

Percentage and Frequency Distribution of Health Problems Related to the Need For Balance Between Production and Utilization of Energy

Health Problem	Sample	
	Percentage %	N=20 <u>n</u>
3.1 Restricts sport participation	80	16
3.2 Fatigue due to dyspnea and/or inability to maintain regular sleep patterns during dyspnea	70	14
3.3 Dyspnea frequently interrupts daily activities	35	7
3.4 Exacerbation of symptoms during travel and holidays	20	4

The most frequently cited health problem within this need category, among 80% (n=16) of the sample, was that asthma symptoms often necessitated restrictions in sports participation and that this was the crux of many of their frustrations. One of the interviewees maintained,

The exercise is one thing I really miss being able to do as easily as I would like to. I was extremely fit and it is kind of disheartening I guess is the word, to look at myself now in relation to then and realize that I can't go out and cycle with the guys as easily as I would have in the past.

Of the four who did not identify this as a health problem, three did not enjoy sports and preferred to remain sedentary, and one participant was currently active in sports and asthma seldom interfered with this. A sport several stated they could no longer take part in was skiing. Another frequently identified health problem, in this need category, was fatigue due to dyspnea and/or irregular sleep patterns during dyspneic periods. Other health problems perceived less frequently were tabulated in Table 3 (3.3 to 3.4 inclusive).

#### Health Problems Related to the Need For Mastery

A total of six health problems were sub-categorized as related to the need for mastery. The



cumulative frequency of responses which have been identified within this need category was 32. Table 4 itemizes the health problems related to this need and illustrates percentages and frequency distributions.

Table 4

Percentage and Frequency Distribution of Health Problems Related to the Need For Mastery

Health Problems	Sample	
	Percentage	N=20 <u>n</u>
4.1 Employment and career goals threatened	70	14
4.2 Trial and error learning not an efficient way to learn how to cope with health problems	45	9
4.3 Difficulty with household tasks	25	5
4.4 Ignoring situations which can precipitate asthma in order to satisfy important goals	20	4

Seventy percent (n=14) stated that asthma threatened their employment or career goals. This was so especially if allergens or irritants were commonly found at the place of work. One interviewee stated,

I have to choose carefully what restaurants I work in. The customers' smoke can fill the whole room in five minutes and if the restaurant doesn't have air conditioning I'd be having asthma attacks all through work.

Another respondent claimed,

As a salesman when I go into an industrial plant I would be aware of paint and things like that which may inhibit me in making a sales call or whatever.

Another interviewee, a registered nurse, was severely allergic to Metamucil powder, a drug she commonly administered to patients. As a result she had been unable to work for the last six months, because of severe asthma symptoms. Two participants had concerns that prospective employers may question whether they are capable of performing well at work if their diagnosis of asthma was known to the potential employer. Six professed that they feel frustrated when they cannot participate in some activities, further their career goals, or compete with others as much as they wished because of asthma. One described her

degree of frustration in these words,

I can handle the discomfort or pain or whatever; what drives me mad is not being able to do what I want to do.

Forty-five percent (n=9) stated that after the diagnosis of asthma had been made, they experienced difficulties in learning about the illness itself, and how to master and cope with the problems it presents. They pointed out that what they had learned about asthma and how to cope with it was largely due to their own trial and error methods, or was related to information they had been able to glean from relatives or friends who had asthma. Several claimed that there is little access to health education, and maintained that the lack of educational resources was frustrating and stress provoking. One interviewee said, "I would have liked to be given the knowledge that it took me so long to obtain myself." In addition, 10% (n=2) pointed out that they would favor health education which focused on simplistic explanations rather than in-depth medical explanations.

Other less frequently cited health problems within this need category were itemized in Table 4 (4.3 to 4.4 inclusive). Some interviewees perceived difficulties in performing certain customary household tasks. One

described her difficulties associated with carrying out household tasks in this way.

Just going down to the basement to the laundry and coming up the laundry stairs, things like that is sometimes hard work. And what else? Carrying groceries, bags of groceries up the steps is difficult.

Vacuuming and dusting were particularly troublesome tasks for some, especially when they were wheezy or short of breath. Others stated that these tasks could, in fact, precipitate asthma symptoms because the commonly marketed household cleaning agents, especially agents sold in spray dispensers, and cleaning agents such as ammonia or bleach could initiate asthma symptoms. Of the 25% (n=5) who acknowledged difficulty in accomplishing some of their household tasks, two were not employed outside their home. Only one mentioned that their mate or husband had taken responsibility for some of the tasks which were particularly troublesome.

#### Health Problems Related to the Need For Respect of Self, By Self and Others

A total of five health problems were sub-categorized as related to the need for respect of self, by self, and others. The cumulative frequency of responses which have been identified within this need

category was 29. Table 5 itemizes these health problems and illustrates percentages and frequency distributions.

Table 5

Percentage and Frequency Distribution of Health Problems Related to the Need For Respect of Self, By Self and Others

Health Problem	Sample	
	Percentage %	N=20 <u>n</u>
5.1 Asthma symptoms can precipitate depression	50	10
5.2 Some in society including members of the health professions are prejudiced toward individuals with asthma	30	6
5.3 Embarrassed by asthma symptoms and of medication-taking in public	30	6
5.4 Lack of stamina compared to peers	20	4
5.5 Difficulty in acceptance of asthma diagnosis and of perceiving self as chronically ill	15	3

A frequently perceived health problem which was identified in this need category was depression. Several stated their feelings of depression were related to the fact that asthma symptoms can frequently preclude positive attitudes regarding their physical appearance, and can affect their general feelings of physical well-being. One 26 year old interviewee stated,

The only time that it (asthma) really affects me is when I have to take the medication. It makes me shake or it makes me really tired and I get black circles under my eyes and you just feel "blah" all over. You don't really feel like doing anything or going any where you just want to go to bed.

Thirty percent (n=6) perceived that many in society are prejudiced toward those with asthma. Participants believed that there are individuals in society who largely attributed psychological causes with asthma, or hold that persons with asthma can use their symptoms for personal gain. One interviewee asserted, "I don't think others understand the effects of asthma because it is not something tangible to them." Another participant acknowledged,

I sort of have kept it in the closet really (having asthma), because people who don't understand what it is and just perceive it as a weakness--a psychological weakness, so I don't admit to other people that I have it.

It was also emphasized that some physicians generally could be more informed about asthma and more adept at diagnosing it. Some stated that they suffered prolonged mental anguish because their asthma had not been diagnosed before a substantial amount of time had lapsed after the onset of symptoms. One interviewee claimed,

I went to several doctors and described the symptoms, and they thought that I had some "mental problems." The diagnostic problem went on probably for a year.

It was reported by others that they felt embarrassed or self-conscious when they sensed that their asthma symptoms were easily observed by others in social or public situations. One interviewee conscientiously tried to mask her symptoms from others. She acknowledged,

I find one of my main problems with asthma is attempting to conceal that I have it. I don't know why, but I have always had this absolute horror of anyone knowing I have it.

Two interviewees stated that they did not feel at ease taking medications such as their inhaled bronchodilator in the presence of others. They therefore found it necessary to try to find a private place to administer their medications.

Twenty percent (n=4) were distressed because they lacked the physical stamina they believed that others of their age group possess. Some stated they felt much older than their actual years when their asthma symptoms were severe. For example, one interviewee confessed "sometimes I feel like I am 90 years old." Generally participants felt they should be better able to perform physically relative to their chronological age.

Among those who professed that it was difficult for them to accept the fact that they had asthma, some acknowledged that a few years had passed before they could fully accept the reality of being an individual with a chronic illness, having to learn how to cope with it, and having to adhere to a treatment regimen. One interviewee described his experience in this way,

I really ignored it for a while. It was a bit of shock realizing that I would have it for the rest of my life, that it won't go away. You always think those things happen to other people not to yourself. When he (the physician) first told me I had asthma, it was like having an accident, it always happens to someone else, not to yourself.

Another interviewee stated,

It is hard to accept being an asthmatic, it really is hard, when you haven't been sick before in your life, and have been healthy and active prior to this. Then, all of a sudden you discover you can't run up the street or walk up a hill without problems, you think what is happening to me!



Health Problems Related to the Need For Love,  
Belongingness and Dependence

Five health problems were sub-categorized as unmet needs related to the basic human need for love, belongingness, and dependence. The cumulative frequency of responses which have been identified within this category, was 21. Table 6 tabulates these health problems and illustrates percentages and frequency distributions.

Table 6

Percentage and Frequency Distribution of Health  
Problems Related to the Need For Love, Belongingness  
and Dependence

Health Problem	Sample	
	Percentage	N=20 <u>n</u>
6.1 Restricts social activities		
with family and friends	35	7
6.2 Significant others and		
friends have little		
understanding of their		
problems	30	6
6.3 Tension in relationships		
with family	20	4
6.4 Inhibits sexual intercourse	15	3
6.5 Loneliness during nocturnal		
dyspnea	5	1

Thirty-five percent (n=7) found that their asthma symptoms can curtail their social events and activities with family and friends. This frequently was necessary when asthma symptoms were particularly troublesome, or when it was necessary to avoid allergen contacts which could be present in the social environment. One interviewee stated,

Socially it (asthma) is very inhibiting, extremely inhibiting. When I am invited to someone's place, I think to myself, do they smoke? I can control my own situation in my own home but you can't when you go out, and I also have a problem in restaurants.

Some acknowledged that the social restriction can also predispose feelings of loneliness. In reference to this, one interviewee stated, "You know, it sort of makes you feel like an odd man out." This same interviewee also stressed that having asthma was particularly annoying when it interfered with activities with her children. She found it especially upsetting to hear her child say, "Mummy can't go because she has asthma."

Other less frequently perceived health problems are itemized in Table 6 (6.3 to 6.5 inclusive). Four perceived that the symptoms of asthma made them: irritable, crabby, lacking in patience, demanding, and

depressed." One interviewee stated, "It changed my whole personality, I'm not what I used to be, and I hate being like this." Subsequently, these persons pointed out that mood changes placed a strain on close relationships.

Health Problems Related to the Need For Intake of Food and Fluid: Nourishment

Four health problems were sub-categorized in relation to the need for intake of food and fluid: nourishment. The cumulative frequency of responses which have been identified within this need category was 20. Table 7 tabulates these health problems and illustrates percentages and frequency distributions.

Table 7

Percentage and Frequency Distribution of Health Problems Related to the Need For Intake of Food and Fluid: Nourishment

Health Problem	Sample	
	Percentage	N=20 <u>n</u>

7.1 Food and fluid allergen

control	40	8
---------	----	---

Table 7 continued. . .

---

Health Problem	Sample	
	Percentage	N=20
		<u>n</u>

---

7.2	Gastrointestinal upset		
	due to asthma medications	30	6
7.3	Poor nutritional habits can		
	exacerbate asthma symptoms	15	3
7.4	Decreased exercise tolerance		
	causes weight gain	15	3

---

The most frequently cited health problem within this need category was that certain food and fluid allergens had to be conscientiously avoided. This was troublesome, in most cases, either because the foods and fluids that had to be avoided were favorite commodities, or because the restrictions made it difficult to following the customary mealtime habits of others. For example, one interviewee stated,

There is literally nothing that I can have for breakfast. Anything that a "normal" person would have for breakfast like cereal, toast or eggs is all out for me because I am now allergic to all those things.

Several contended that having food and fluid allergens was especially inconvenient and could produce awkward moments while dining out at a friends' home, or in a restaurant. Others who were allergic to some chemicals, preservatives, and additives in food and fluids such as metabisulphate, frequently found that it was difficult to absolutely avoid these agents. The second most frequently perceived health problem was that medications, prescribed to control or prevent asthma, may produce gastrointestinal upset such as indigestion.

Other less frequently identified health problems are itemized in Table 7 (7.3 to 7.4 inclusive).

#### Health Problems Related to the Need For Intake of Oxygen

Two health problems were sub-categorized in relation to the need for intake of oxygen. The cumulative frequency of responses which have been identified within this need category was 10. Table 8 itemizes these health problems and illustrates percentages and frequency distributions.

Table 8

Percentage and Frequency Distribution of Health Problems Related to the Need For Intake of Oxygen

Health Problem	Sample	
	Percentage	N=20 <u>n</u>
8.1 Emotions and stress can precipitate dyspnea	40	8
8.2 Enjoy smoking and continue to do so but it can precipitate asthma symptoms	10	2

Forty percent (n=8) stated that emotions and stress can precipitate dyspnea. Several pointed out that they frequently needed to conscientiously make an effort to remain calm and relaxed. This was particularly difficult when situations at work, or at home, were especially trying.

Health Problems Related to the Need For Stimulation of the Senses

Four health problems were sub-categorized in relation to the need for stimulation of the senses.

The cumulative frequency of responses which have been identified within this need category was 10. Table 9 itemizes these health problems and illustrates percentages and frequency distributions.

Table 9

Percentage and Frequency Distribution of Health Problems Related to the Need For Stimulation of the Senses

Health Problem	Sample	
	Percentage	N=20 <u>n</u>
9.1 Decreased sense of taste	25	5
9.2 Decreased sense of smell	10	2
9.3 Sense of smell for allergen odours has increased	10	2
9.4 Eyes puffy and irritated	5	1

Twenty-five percent (n=5) stated that asthma symptoms could contribute to a diminished sense of taste. Some found this frustrating because it had implications for the enjoyment of meals, and it also necessitated that they find others to season food for them.

Other less frequently perceived health problems were itemized in Table 9 (9.2 - 9.4 inclusive). Of those who experienced a diminished sense of smell, one interviewee stated this was a concern for her because she worried that she would not be able to quickly detect a housefire at her residence if one occurred. Others believed their sense of smell for some irritants and allergens had become more acute. This was described as an unpleasant experience, and one interviewee said he became nauseated when exposed to the smell of certain substances he is allergic to.

Health Problems Related to the Need For Collection and Removal of Accumulated Waste

One health problem was sub-categorized in relation to the need for collection and removal of accumulated waste. The cumulative frequency of responses which have been identified within this need category was 6. Table 10 tabulates this health problem and illustrates percentages and frequency distributions.



Table 10

Percentage and Frequency Distribution of Health Problems Related to the Need For Collection and Removal of Accumlated Waste

Health Problem	Sample	
	Percentage	N=20 <u>n</u>
10.1 Difficulty in clearing		
chest of mucus in A.M.	30	6

Those who experienced difficulty in clearing their chest upon awakening in the morning found it necessary to set aside time in their morning routine for pulmonary hygiene.

Thus far in this section the multiple health problems related to asthma, as perceived by the participants in this study, have been singularly described in detail. What follows presents an analytical summary of the health problems which were identified most frequently among the sample. The health problems have been classified as they occur

within and across the nine needs categories in terms of commonalities that exist in the general type of difficulty and/or concern experienced. By grouping the health problems in this manner, common general categories of health problems were generated from the array of specific health problems perceived. Of the seven health problem categories generated, five were classified according to Strauss and Glaser's (1975) suggested system for conceptualizing the common type of health problems experienced by the chronically ill. The remaining two common categories of health problems were generated on the basis of the investigators' interpretation of the data and in view of what has been documented in the allied health literature specifically pertaining to the problems experienced by those with asthma.

To begin, the first category of health problems were classified as similar in type because they create difficulties in customary lifestyle patterns. The following health problems belong to this general category although they do vary in respect to the specific lifestyle problem experienced. For example, 80% (n=16) of the participants stated that asthma restricted sports participation. Among individuals of

this young age group this is an understandable finding, and especially in view of the current emphasis in the 1980's on physical fitness. On the other hand, 70% (n=14) professed that they experienced fatigue due to shortness of breath and/or inability to maintain regular sleep patterns during periods of dyspnea, while 70% (n=14) acknowledged that having asthma presented a threat to their employment or career goals. It has been extensively documented in the literature, by several social science theorists, that "becoming established in a vocation or profession that provides personal satisfaction, economic independence, and a feeling of making a worthwhile contribution to society" is one of the developmental tasks of young adults (Murray & Zentner, 1979). It is therefore reasonable that this problem would be of concern to the young adult participants in this study.

In summary, these health problems, although unique in themselves and reflective of individual differences in perception, can be generally classified as difficulties in customary living patterns; hence they were categorized as life style problems. Strauss and Glaser (1975) suggested that the common problems experienced in daily living by the chronically ill were problems related to the customary style of life of

individuals. The findings in this study then are consistent with some of what has been previously documented in respect to the common types of problems experienced in chronic illness.

The second category of health problems may be considered a common type because they pose difficulties for individuals in controlling asthma symptoms. The following are health problems of this type and are illustrative of the diversity in individual perceptions of specific problems which can be classified within this common category. Sixty percent (n=12) of the sample identified that the need to avoid and control environmental allergens and irritants was a health problem. This particular finding is significantly justifiable in view of the knowledge that all participants in this study had asthma of the extrinsic type, that 50% (n=10) of the sample verified that their asthma was seasonally-related or at least occasionally so, and that 50% (n=10) cited 5 to 8 allergens or irritants which precipitated their asthma. Another 55% (n=11) reported that they were susceptible to upper respiratory infections. This health problem required the adherence to preventative practices to avoid characteristic upper respiratory infection symptoms. Forty-five percent (n=9) of participants professed that

establishing and adhering to their prescribed medication schedule, as a means to control their asthma symptoms, was problematic. Other health problems perceived by 40% (n=8) were difficulties in controlling food and fluid allergens and, by 30% (n=6), in clearing their lungs of mucus upon arising.

In summary, these health problems have been categorized as problems related to controlling the symptoms of asthma, and hence they may be referred to as symptom control problems. Strauss and Glaser (1975) also determined that this common type of problem was frequently experienced by the chronically ill.

The third common category of health problems have been identified as problems of a similar type because they create difficulties in the maintenance of a positive self-esteem. The following may be categorized as specific health problems of this type, and demonstrate the diversity in individual perception which may exist within this common health problem category. Fifty percent (n=10) of the participants conceded that asthma symptoms, and commonly related responses, can precipitate depression. Hudgel and Madsen, 1980; Sexton, 1981; Gershwin, 1981; Burns, 1982; Creer, 1979 also identified that depression is common among individuals with asthma. Although Creer

(1979) claimed that feelings of depression may be associated with the losses experienced by those with chronic obstructive pulmonary disease, however, the participants in this study linked their depression with lack of physical well-being and changes in their physical attractiveness and appearance due to the nature of symptoms in asthma. Another health problem which may have an impact on the self-esteem of this client group, as identified by 30% (n=6) of the participants, was the belief that some in the general society and in the health professions appeared to be prejudiced toward persons with asthma. Creer (1979) also asserted that those with asthma may experience social stigma and suggested this may be due to the assumption that asthma symptoms are initiated by psychological factors. Finally, another 30% (n=6) professed that they experienced embarrassment when their asthma symptoms and medication-taking were obvious to others in public situations.

Although specific health problems varied within this category, they may be categorized as of a common type because they may reduce the self-esteem of persons with asthma. Therefore, they may be referred to as self-esteem problems. The identification of this problem is consistent with what has been written in the current allied health literature. For example,

Creer (1979) maintained that this particular client group may experience decreased self-esteem.

The fourth category of health problems may be considered a common type because they create experiences of social isolation among individuals with asthma. The following have been categorized as specific health problems of this type and are illustrative of the individual differences in perception. Thirty-five percent ( $n=6$ ) of the participants perceived that having asthma inhibits social activities with their family and friends. Creer (1979) held that the experience of social isolation may be linked to restrictions in social activity. Hence, the social inhibiting factor associated with asthma identified in this study is consistent with current literature. Another 30% ( $n=6$ ) reported that significant others and friends have little understanding of the problems they experience with asthma. One explanation for this could be related to the social stigma that exists toward those with asthma. As suggested by Creer (1979) asthma may evoke feelings of frustration and hostility in significant others.

In summary, these health problems may be categorized as problems of social isolation. This

finding is consistent with the Strauss and Glaser (1979) framework of common problems experienced by the chronically ill.

The fifth category of health problems may be classified as a common type because they may be instrumental in presenting difficulties for individuals in adjusting to living with asthma. The following demonstrate the diversity of adjustment problems which exist within this common category. Forty-five percent (n=9) of the participants reported that the trial and error, self-instructed learning process that they experienced, due to the lack of appropriate community resources, was not an effective way to learn how to cope with asthma. It is logical to suggest that this difficulty may have significant implications for creating a multitude of other health problems. Another 25% (n=5) stated they experienced a decreased sense of taste, and therefore they frequently needed to elicit the assistance of others in food preparation to season the food as necessary. Some also reported that this decreased their enjoyment of their meals. Finally, 20% (n=4) professed they at times ignored situations which can precipitate asthma in order to satisfy goals important to them.



These health problems may be identified as adjustment problems related to asthma. Strauss and Glaser (1975) also suggested that adjustment problems were common among those living with a chronic illness.

The sixth category of health problems share a commonality in that they may be grouped as difficulties and/or concerns which create a broad spectrum of unpleasant psychological feelings. The following reflect the diversity in health problems within this common category. Twenty percent (n=4) of the participants conceded that they experienced marked shortness of breath. Two of these interviewees also reported that emotions and stress could, in fact, precipitate or exacerbate their asthma symptoms. This health problem was sub-categorized as a difficulty related to the need for: intake of oxygen. Hence, perceived health problems related to the need for safety and security could influence the emergence of a health problem related to another basic human need. This finding may be explained and supported by the assumption in The U.B.C. Model for Nursing (1980) that all need subsystems are interdependent and interrelated. The psychological feelings identified by the participants in this study are consistent with what has been documented in the literature. Gershwin

(1981), Stein (1981), Young (1980), and Hume (1970) maintained that the pathophysiological problems in asthma can induce problems of a psychological nature. It has also been suggested by Hudgel and Madsen, 1980; Sexton, 1981; Gershwin, 1981; Burns, 1982; and Creer, 1979, that anxiety, fear, panic, and excessive worrying are common in those with asthma. Several health problems identified as concerns in relation to the need for safety and security created worries for several. The most frequently cited worry experienced by 45% (n=9) was related to the side-effects of taking asthma medications. Some of the nine participants stated that the physical symptoms they experienced were worrisome, while others were gravely concerned regarding feelings of mental instability experienced while taking certain medications. Other concerns were identified among the sample but they were perceived by fewer participants in this study as being problematic.

To summarize, these health problems may be categorized as psychological problems.

The seventh and last category suggests the difficulty experienced by some participants in interacting with others. Twenty percent (n=4) among the sample reported that having asthma could produce tensions in relationships with their family members. This is consistent with Chalmer's (1984) research

findings who identified that individuals with chronic obstructive pulmonary disease frequently experienced changed interpersonal relationships with their spouse and significant others.

In summary, this health problem may be referred to as a social interaction problem. Strauss and Glaser's (1975) framework for identifying the problems of the chronically ill also suggested that interactional problems were common.

### Summary

The common health problems experienced by young adults with asthma in this study were categorized as follows: lifestyle, symptom control, self-esteem, social-isolation, adjustment, psychological, and interaction problems. It has been illustrated that the health problems, within the general categories, varied markedly among the participants although common types of health problems were experienced.

### Learning Needs of Young Adults with Asthma

#### Overview

What follows describes the learning needs perceived by the young adult participants as they have been sub-categorized in relation to the nine basic

human needs premised within The U.B.C. Model for Nursing (1980).

Learning Needs Related to the Need For Safety and Security

A total of nine learning needs were sub-categorized in relation to the need for safety and security. The cumulative frequency of responses which have been identified within this need category was 45. Table 11 tabulates these learning needs and indicates percentages and frequency distributions.

Table 11

Percentage and Frequency Distribution of Learning Needs Related to the Need For Safety and Security

		Sample	
		Percentage %	N=20 <u>n</u>
Learning Needs			
11.1	Relaxation techniques	40	8
11.2	Functions and side-effects of asthma medications	40	8
11.3	Causal factors in asthma	40	8
11.4	Environmental control	35	7

Table 11 continued . . .

Learning Needs	Sample	
	Percentage%	N=20 <u>n</u>
11.5 Hereditary factors in asthma	25	5
11.6 Long-term prognosis of asthma	20	4
11.7 When to take asthma medications	15	3
11.8 Special precautions during pregnancy	5	1
11.9 Emergency measures for asthma attack	5	1

The learning needs perceived most frequently, within this need category, were the following: how to do relaxation techniques, the functions and side-effects of asthma medications, the causal or triggering factors related to asthma (of those who wished to learn more about the causal factors in asthma, five had been diagnosed recently), and how to control the environment to minimize allergen and irritant contacts.

Other learning needs less frequently mentioned are

illustrated in Table 11 (11.5 to 11.9 inclusive). Of those who wished to learn of the implications of heredity factors in asthma, all had children. Furthermore, of those who were interested in obtaining information about the long-term prognosis of asthma, two stated that asthma severely interfered with their daily needs and activities. The need to gain information about special care for persons with asthma, during pregnancy, was suggested by an interviewee who had recently delivered her first child, and was intending to have more children.

Learning Needs Related to the Need For Balance  
Between Production and Utilization of Energy

Two learning needs were sub-categorized in relation to the need for balance between production and utilization of energy. The cumulative frequency of responses which have been identified within this need category was 11. Table 12 illustrates these learning needs, percentages and frequency distributions.

Table 12

Percentage and Frequency Distribution of Learning Needs  
Related to the Need For Balance Between Production and  
Utilization of Energy

Learning Needs	Sample	
	Percentage %	N=20 <u>n</u>
12.1 Pacing techniques in sports	40	8
12.2 Beneficial and appropriate sports	15	3

Forty percent (n=8) identified that they wished to obtain information about how to go about pacing themselves in sports. The purpose of this was to learn how to increase their activity tolerance, endurance, and to set realistic sports goals in the provision of maintaining sports involvement. Others stated they wished to learn what sports are the most appropriate and beneficial for persons with asthma.

Learning Needs Related to the Need For Mastery

Two learning needs were sub-categorized in relation to the need for mastery. The cumulative

frequency of responses which have been identified within this need category was 11. Table 13 tabulates these learning needs.

Table 13

Percentage and Frequency Distribution of Learning Needs  
Related to the Need For Mastery

Learning Needs	Sample	
	Percentage %	N=20 <u>n</u>
13.1 Asthma pathophysiology	30	6
13.2 Perceptions of others with asthma and the coping strategies used by them	25	5

Thirty percent (n=6) pointed out that they desired to learn the specific anatomy and physiology connected with asthma symptomatology. Twenty-five percent (n=5) also stated they wished to learn how others with asthma perceived themselves and how they coped with their health problems.

Learning Needs Related to the Need For Intake of  
Food, Fluid: Nourishment

Two learning needs were sub-categorized in relation to the need for intake of food, fluid:



nourishment. The cumulative frequency of responses which have been identified within this need category was 10. Table 14 itemizes these learning needs.

Table 14

Percentage and Frequency Distribution of Learning Needs  
Related to the Need For Intake of Food, Fluid:  
Nourishment

Learning Needs	Sample	
	Percentage %	N=20 <u>n</u>
14.1 Diet tailored to		
individuals with asthma	35	7
14.2 Maintenance or weight		
loss diet	15	3

Thirty-five percent (n=7) identified that they wished to obtain information about foods and nutrition which may be most beneficial and appropriate for individuals with asthma because they contended that there is a link between maintenance of good nutrition and the prevention and control of asthma symptoms. Of

those who wished to obtain knowledge about an appropriate diet to maintain or lose weight, all stressed they had a tendency toward weight gain in conjunction with limitations in activity related to asthma.

Learning Need Related to the Need For Love,  
Belongingness and Dependence

One learning need was sub-categorized in the relation to the need for love, belongingness and dependence. The cumulative frequency of responses which have been identified within this need category was 3. Table 15 illustrates the learning need in this category.

Table 15

Percentage and Frequency Distribution of Learning Needs  
Related to the Need For Love, Belongingness and  
Dependence

Learning Needs	Sample	
	Percentage %	N=20 <u>n</u>
15.1 Maintenance of relationships		
with significant others	15	3

How to effectively cope with relationships with significant others when tensions arise due to the impact of asthma was the one perceived learning need sub-categorized within this need category.

Learning Need Related to the Need For Intake of Oxygen

One learning need was sub-categorized in relation to the need for intake of oxygen. The cumulative frequency of responses which have been identified within this need category was 2. Table 16 illustrates this learning need.

Table 16

Percentage and Frequency Distribution of Learning Need Related to the Need For Intake of Oxygen

Learning Need	Sample	
	Percentage %	N=20 <u>n</u>
16.1 Coughing technique	10	2

How to effectively clear lung airways of mucus was the one perceived learning need sub-categorized within this need category.

In this section the learning needs, as perceived by young adults in this study, have been described individually and in detail in relation to need categories. What follows is a summary of the learning needs, which were identified most frequently among the sample, and represents a systematic analysis of the data according to similar general characteristics which are inherent in the learning needs described. This analysis occurs in a similar manner to which the common categories of health problems were generated. The learning needs were classified according to the investigator's interpretation of existing commonalities in learning needs which addressed the associated health problems described. In this manner the names of common learning need categories were kept consistent with the names of the common health problem categories.

The majority of learning needs have been sub-categorized in relation to the need for safety and security. These learning needs may be considered of a common type because they may be classified as learning

needs associated with symptom control problems, nevertheless they illustrate the vast diversity in learning needs among the participants in this study. For instance, 40% (n=8) reported that learning how to do relaxation techniques to control stress and emotions would be beneficial. Casey et al.'s (1983) research, which investigated the learning needs of patients after a myocardial infarction, also revealed that patients reported that learning how to deal with their emotions and stress was one of their learning needs; in fact, it was their most important one. Obtaining knowledge of the functions and side-effects of asthma medications was a learning need identified by another 40% (n=8) of this sample. This finding is also similar to the findings in Casey et al.'s (1983) study which determined that patients wished to gain knowledge of medication side-effects. Given some of the unpleasant and unfortunate experiences that some participants in this study experienced due to the side-effects of medications, the identification of this learning need is not a surprising finding. Forty percent (n=8) of the participants stated they wished knowledge of the causal factors in asthma, another 35% (n=7) maintained that learning how to control their environments was a specific need; while 25% (n=5) reported they wanted

more knowledge of the heredity factors in asthma. Finally, another 20% (n=4) pointed out that they needed to learn more in respect to the long-term prognosis of asthma. These findings are similar to the findings in Gerrard and Peterson's (1984) and Casey et al.'s (1983) studies which illustrated that cardiac patients perceived that they needed knowledge of risk factors, and the etiology of myocardial infarctions.

Two learning needs which were sub-categorized in relation to the need for mastery may be indirectly classified as learning needs associated with needed problems because it is assumed that related pathophysiology knowledge and knowledge of how others with asthma cope with their health problems may assist individuals with their symptom control problems. These identified learning needs are as follows and demonstrate the differences in learning needs classified within this common learning need category. Thirty percent (n=6) stated they required knowledge of asthma pathophysiology, another 25% (n=5) reported that they wished to learn of how others with asthma perceive themselves, and to learn from these individuals how they cope with their problems. This last finding is similar to what was found in Forsyth et al.'s study, which investigated the learning needs of chronically

ill patients; that is, patients appreciated the opportunity to learn from other patients in a similar situation to their own.

In summary, these learning needs may be categorized as learning needs associated with symptom control problems.

The second category of learning needs may be classified in terms of commonalities that exist in association with lifestyle problems. The following are learning needs of this type although individual differences in perception vary in relation to this common learning need category. Pacing techniques in sports, which was sub-categorized in relation to the need for balance between production and utilization of energy, was reported by 40% (n=8) and may be generally classified as a learning need necessary to cope with restrictions in sports activities. Diets tailored to individuals with asthma, sub-categorized in relation to the need for intake of food, fluid: nourishment, may be referred to as what participants needed knowledge of to maintain healthy eating patterns. These findings are consistent with what Forsyth et al. (1984) found, that is, chronically ill patients desired information related to recreational activities and diet.

To summarize, the learning needs just described

may be categorized as of a common type. They may be commonly conceptualized as learning needs associated with lifestyle problems.

One last learning need may be generally classified as a learning need associated with social interaction problems. Maintenance of relationships with significant others, which has been sub-categorized within the need for love, belongingness and dependence, was identified as a learning need by 15% (n=3) of the participants. Casey et al.'s (1983) research study also illustrated that cardiac patients perceived they required information on how to modify personal factors.

To summarize, one learning need perceived by participants in this study may be categorized as a learning need to enable them to cope with their associated social interaction problems.

### Summary

The learning needs perceived by the young adults with asthma who participated in this study were as follows: learning needs associated with symptom control problems, learning needs associated with lifestyle problems, and learning needs associated with social interaction problems. It has been demonstrated that participants' perceptions of specific learning



needs differed although common types of learning needs were experienced.

It is apparent that the learning needs perceived by this sample population clearly placed an emphasis on learning how to control symptoms, how to manage their lifestyle and social interactions. However, there appears to be a lack of consistency in the number and type of perceived health problems which included: self-esteem, social isolation, psychological, lifestyles and adjustment problems compared to the number and type of learning needs that were subsequently perceived. Several reasons for this may be suggested. First, during interviews, participants received little guidance from the investigator in the problem-solving process of defining learning needs in association with perceptions of their problems. It is possible that individuals require some assistance with the cognitive process involved in problem-solving and in determining learning needs, particularly when the learning needs relate to requirements for health education. Second, some interviewees may have believed that, although they experienced a particular health problem related to asthma, they were nevertheless coping sufficiently with it, and therefore did not

require further information. Third, the investigator speculated that a lack of knowledge among the interviewees of the current extended role of the nurse may be a factor. Hence, the interviewees may envisage nurses in the role of assisting them with their learning needs associated with symptom control problems, more so than with assisting them with their psychological and social problems.

Finally, the investigator found that the basic human needs premised within The U.B.C. Model for Nursing (1980) provided a useful means to sub-categorize the health problems and learning needs in relation to need sub-categories. Nonetheless, it did not provide an effective means to categorize the learning needs and health problems in terms of broad commonalities that exist, because common types of health problems and learning needs exist across the needs categories.

### Relationships Between Selected Demographic and Personal Variables and Perceived Learning Needs

#### Overview

The perceived learning needs of young adults with asthma were related to selected demographic and

personal variables, and Fisher's Exact Test was used to determine the statistical significance of the relationships. A probability level of .05 was set for judgements of statistical significance.

A relationship was found between time since diagnosis and the learning need of pathophysiology of asthma. More participants in this study, diagnosed less than 1 year to 5 years, perceived pathophysiology of asthma as a learning need. Table 17 illustrates the variable frequency distribution among the sample in relation to the perceived learning need.

Table 17

Relationship Between Length of Time Diagnosed and the Learning Need Pathophysiology of Asthma

Length of time diagnosed	Pathophysiology of asthma	
	Yes	No
Less than 1 year to 5 years	5	2
Five years to 30 years	1	12

\*\*  $F = 5$ ,  $p < .01$ , Fisher's Exact Test

It was also determined that time since diagnosis was related to wanting to learn of the perceptions of other persons with asthma and their coping strategies.

More young adults in this study, diagnosed less than 1 year to 5 years, identified the perceptions of others with asthma and their coping strategies as a learning need. Table 18 shows the variable frequency distribution among the sample in relation to the perceived learning need.

Table 18

Relationship Between Length of Time Diagnosed and the Learning Need Perceptions of Others With Asthma and Their Coping Strategies

Length of time diagnosed	Perception of others with asthma and their coping strategies	
	Yes	No
Less than 1 year to 5 years	4	3
Five years to 30 years	1	12

\*  $F = 4$ ,  $p < .05$ , Fisher's Exact Test

The frequency with which professional health care, due to asthma, is sought was related to the learning need, long-term prognosis of asthma. More participants who sought out professional health care due to asthma 3 to 4 times per year perceived the long-term prognosis of asthma as a learning need. Table 19 shows the

variable frequency distribution among the sample in relation to the perceived learning need.

Table 19

Relationship Between How Often Professional Health Care Due To Asthma Is Sought and the Learning Need Long-Term Prognosis of Asthma

Frequency professional health care, due to asthma, is sought	Long-term prognosis of asthma	
	Yes	No
Occasionally or 1 to 2 times per year	0	11
Three to 4 times per year	4	5

\*  $F = 4$ ,  $p < .05$ , Fisher's Exact Test

Finally, whether or not the participants had dependents (children) was a demographic variable related to the learning need hereditary factors in asthma. More young adults in this study who had dependents (children) perceived hereditary factors in asthma as a learning need. Table 20 illustrates the variable frequency distribution among the sample in relation to the perceived learning need.

Table 20

Relationship Between Having Dependents (Children) and  
the Learning Need Hereditary Factors in Asthma.

Dependents (children)	Hereditary factors in asthma	
	Yes	No
Yes	5	6
No	0	9

\*  $F = 0$ ,  $p < .05$ , Fisher's Exact Test

The four statistical relationships described above are understandable from a clinical perspective. For example, those recently diagnosed with asthma are more likely to be in the process of learning about the nature of asthma, of learning how other persons with asthma perceive their problems, and how they cope with them, compared to those who have had asthma for many years. It is understandable that those who sought professional health care more frequently than other participants with asthma wished to learn of the prognosis of asthma. These individuals perhaps perceived they were suffering more from asthma, were

sicker than the others, and wished to become well again. Hence, understandably they sought assistance from their physician frequently and were more concerned with the long-term prognosis of asthma. Finally, it is understandable from a clinical perspective to find that individuals with children were concerned about their children developing asthma and therefore wished to learn of the hereditary factors in asthma compared to persons with asthma who had no children.

#### Summary

The statistical analysis determined that two of the personal variables and one of the demographic variables were related to perceived learning needs. Specifically, it was determined that length of time, diagnosed, how often professional health care due to asthma is sought, and having dependents (children) were related to specific perceived learning needs.

## CHAPTER FIVE

### Summary, Conclusions, Implications, and Recommendations

#### Overview

This chapter presents a summary of the study, conclusions to be drawn from the findings, implications of the findings for nursing practice and nursing education, and recommendations for further research.

#### Summary

The impetus for doing this research was founded on concern for the meaningfulness and relevancy of health education, provided by nurses, for young adults with asthma of the extrinsic type. The study's purpose was to describe the perceptions of young adults with asthma. First, their perceptions of their health problems related to asthma; second, their perceptions of their associated learning needs, and third to determine relationships between selected demographic and personal variables, and perceived learning needs.

The rationale for the study was derived from assumptions held by some sociologists, medical sociologists, nurse educators, and cognitive field learning theorists.



Current allied health literature, which was relevant to this study, was summarized as the following. First, the problems of individuals with asthma and/or chronic obstructive pulmonary disease are multiple, and they have been described within various contexts by allied health professionals. Second, it appears that the learning needs of patients with a chronic illness, as identified from their perspective, primarily focus on what they perceived they needed to learn to cope with their problems experienced in chronic illness. Third, research studies illustrated that relationships may exist between selected demographic and personal variables, and the perceived learning needs of patients. Fourth, the health education focus provided by nurses may not address the most crucial learning needs of patients because little attention appears to be directed toward patients psychological and social problems. Instead, emphasis has been directed toward assisting patients with coping skills to control the pathophysiological symptoms associated with asthma.

A descriptive research design using survey methodology was used to address the research problem. Twenty young adults, between the ages of 20-45 who had asthma of the extrinsic type, participated in this

study. Data were collected using two questionnaires: a demographic and personal closed-ended interview schedule (Appendix A), and a semi-structured open-ended interview schedule (Appendix B). The semi-structured interview schedule was used to obtain the perceptions of young adults of their health problems, due to asthma, and of their associated learning needs. Key concepts in The U.B.C. Model for Nursing (1980) were instrumental in the construction of this schedule. Data analysis was facilitated by the nine basic human needs categories provided by The U.B.C. Model for Nursing (1980). Data were first sub-categorized in relation to the need categories. Second, common categories of health problems and learning needs were generated by determining similarities both in the perceived health problems and associated learning needs found within and across need categories. Statistical analysis was done using Fisher's Exact Test to determine relationships between selected demographic and personal variables, and perceived learning needs. A probability level of .05 was set for judgements of statistical significance.

The findings revealed that the common health problems of young adults with asthma were: lifestyle, symptom control, self-esteem, social isolation,

adjustment, psychological and interaction problems. Common learning needs were associated with symptom control (the majority of the learning needs identified), lifestyle, and interaction problems. The learning needs described did not however address the multiple health problems which had been identified by the sample. In addition, relationships existed between two personal variables (length of time diagnosed and how frequently professional health care due to asthma was sought), and one demographic variable (having dependents--children) and perceived learning needs.

### Conclusions

The following may be concluded from this study. Among the young adults with asthma who participated in this study, common types of health problems and learning needs exist. These findings suggest it may be concluded that among this sample, the health problems experienced and associated learning needs were multiple and pervasive. This finding is congruous with what has been established previously in the published allied health literature. It is also apparent in the findings that a broad spectrum of diversity in perceptions of specific health problems and learning needs exist among the participants, and that three demographic or personal variables were statistically related to

perceived learning needs. It may be concluded, on the basis of these findings, that diversity in associated learning needs among the sample is related in some instances to demographic and personal variables. Finally, the learning needs of young adults with asthma did not consistently address the multiple social and psychological health problems which they experienced, but focused on symptom control, lifestyle and interaction problems. Hence it may be concluded that there is incongruence between the health problems perceived and the associated learning needs of the sample.

The above conclusions were based on the responses of a small convenience sample of 20 young adults with extrinsic asthma. The investigator does not claim that the sample is representative of all young adults with asthma of the extrinsic type, and therefore cannot conclude that the findings are generalizable to other sample populations of similar characteristics.

#### Implications for Nursing Practice

The findings drawn from this study suggest several implications for nursing practice and in particular for health education provided by nurses. Most of them are not new or unique but are a reiteration of what has previously been professed in nursing literature.

To begin, the health problems and learning needs described in this study, from the perspective of young adults with asthma, were multifaceted, diverse, and pervasive. Also, the finding that relationships may exist between demographic and personal variables suggest that the health problems and learning needs of individuals with asthma cannot be comprehensively identified without consideration for the individual's understanding of her/his health problems and learning needs. Therefore, any form of health education which does not address the individual, has grave limitations as a means to provide health education which effectively assists individuals with their health problems and learning needs given what is problematic for them in terms of their experience with asthma. Hence, in the initial assessment phase of planning health education, nurses need to obtain information regarding the health problems and learning needs of young adults with asthma from their frame of reference. This will serve to broaden and supplement nurses' knowledge of the health problems and learning needs of individuals with asthma, and will facilitate in the selection of teaching content which ostensibly attempts to address the difficulties specific to this unique client group.

The health problems and associated learning needs

as described in this study, from the perspective of young adults with asthma, may facilitate in the development of a more comprehensive understanding of the experience of living with asthma and how it can affect all basic human needs and all facets of daily living. This holistic understanding of the impact of asthma is representative of a departure from the more traditional way of describing the experience of asthma and its associated problems, within the context of the medical model, which focuses on the disease and its' symptomatology. Examination of the health problems and learning needs described from young adults' perceptions may also indicate areas in which nurses may need to broaden their clinical knowledge and expertise, so that they can more effectively assist individuals with asthma both through health education and in general clinical practice. For instance, nurses may need to consult with other health professionals such as nutritionists, and sports medicine experts to most effectively assist individuals in coping with some of their lifestyle problems.

The study determined that the learning needs of young adults with asthma are associated with symptom control, lifestyle and social interaction problems, and concluded that the learning needs identified did not consistently address the multiple social and

psychological health problems which had been as described in this study, from the perspective of described. This conclusion has implications for nurses in the provision of health education. It infers that individuals may require more assistance from nurses in defining their learning needs than the participants in this study received from the investigator. It also implies that although nurses purport their function is to assist individuals with their social and psychological needs, perhaps individuals are not cognizant that nurses can be an appropriate resource in this regard. If this is so, nurses will need to make evident, through their practice, that they have the knowledge and expertise to effectively deal with the social and psychological needs of individuals.

In summary, the conclusions in this study suggest that in practice, specifically in teaching health education, nurses need to obtain the perceptions of individuals with asthma regarding their health problems and associated learning needs because perceptions can vary markedly according to persons' illness experiences. Rankin and Duffy (1983) suggested that individuals' perceptions of their learning needs may be obtained in a comprehensive and systematic way by using a nursing conceptual model in practice, in conjunction with the nursing process. They explicitly stressed

that nurses may obtain learner perceptions of their learning needs in the following way,

Learning needs are defined when a nurse assesses the patient, the assessment for patient education does not have to be separate from other patient-assessment activities. Information about the learning needs of the patient and his family is gathered with other data about the patient's condition. (1983, p. 114)

Therefore, nurses concerned with preparing health education, which has meaning and relevance for individuals with asthma, may facilitate the health education planning process by becoming skillful at applying a nursing conceptual framework and the nursing process to the health education process.

#### Implications for Nursing Education

This study concluded that the health problems and learning needs of young adults with asthma are multiple, diverse and pervasive. This lends support to the belief that student nurses require a thorough knowledge base in the biological and social sciences, in the teaching and learning process, as well as adeptness in utilizing a systematic nursing conceptual framework preparatory to the provision of meaningful health education for individuals such as those with asthma.



### Recommendations for Further Study

Proposals for further research to investigate the health problems and learning needs of individuals with asthma from their perspective, and to determine relationships between selected demographic and personal variables and perceived learning needs are as follows:

1. Replications of this study to determine the perceived health problems and learning needs of young adults with asthma of the extrinsic type. A replication may serve to validate the findings and conclusions in this study.
2. Research studies to determine how persons with asthma cope with their health problems may be instrumental in assisting nurses to gain an in depth knowledge of how to most effectively assist persons with asthma through health education.
3. Research studies to investigate the perceived health problems and learning needs of adolescents, middle-aged and elderly adults with asthma of the extrinsic type. Studies such as these could determine similarities and differences in perceptions during various ages and development stages.
4. Studies using pre-structured questionnaires to determine the health problems and learning

needs of young adults with asthma, focusing on their perspective, and to investigate relationships between selected demographic and personal variables and perceived learning needs. Findings from the proposed studies using a different methodology could be functional for comparison purposes with the findings in this study.

### Summary

In summary, the investigator holds that obtaining the personal accounts of how young adults with asthma perceive their health problems and associated learning needs is a vital learner-centered approach which can assist nurses in planning health education which could most satisfy the needs of this client group. A thorough knowledge of what individuals identify as their critical health problems and learning needs, may facilitate nurses in assuring responsibility and accountability in their practice, specifically, in the health education they provide.

## REFERENCES

- Ableson J., Paddon, P. & Strohenger, C. (1983). Perspectives on Health. Minister of Supply and Services Canada, Ottawa.
- American Psychological Association. (1983). Publication Manual of the American Psychological Association. (3rd ed.). Washington: American Psychological Association.
- Barry, K. (1982). The Health Education Needs of the Adult with Epilepsy. Rehabilitation Nursing, 1(3), 30-33.
- Bigge, M. (1982). Theories for Teachers. New York: Harper & Row.
- Bille, D. (1982). Practical Approaches to Patient Teaching. Boston: Little, Brown.
- Blakiston. (1979). Gould Medical Dictionary (4th ed.). St. Louis: McGraw-Hill Book Co.
- Burns, K. (1982). Behavioral health care in asthma. Public Health Review. X (3-4) 339-380.
- Casey, E., O'Connell, J., & Price, J. (1983). Perceptions of Educational Needs for Patients After Myocardial Infarction. Patient Education and Counseling, 6(2), 77-82.
- Chalmers, K. (1984). A Closer Look at How People Cope with Chronic Airflow Obstruction. Canadian Nurse, 80(2), 35-8.
- Commission on Chronic Illness. Chronic Illness in the United States. Prevention of Chronic Illness. Cambridge: Harvard University Press. 1.
- Creer, T. (1979). Asthma Therapy. New York: Stringer.
- D'Agostino, J. (1984). Teaching Tips for Living with COPD at Home, Nursing 84, 14(2), 57.
- Dimond, M., & Jones, S. (1983). Chronic Illness Across the Life Span. Norwalk, Conn.: Appleton-Century-Grofts.

- Dirks, J., & Brown, E. (1982). The Battery of Asthma Illness Behavior, II: Independence from Airways Hyperactivity. Journal of Asthma, 19(2), 79-83.
- Dodge, J. (1969). Factors related to patients perceptions of their cognitive needs. Nursing Research, 18, 502-512.
- Eisenberg, L., & Kleinman, A. (eds.), (1981). The Relevance of Social Science for Medicine. Boston: Reidel Pub. Co.
- Forsyth, G., Delaney, K., & Gresham, M. (1984). Vying for a Winning Position: Management Style of the Chronically Ill. Research in Nursing and Health, 7, 181-188.
- Gerard, P., & Peterson, L. (1984). Learning Needs of Cardiac Patients. Cardio Vascular Nursing, 20(2), 7-11.
- Gershwin, M. (1981). Bronchial Asthma, Principles of Diagnosis and Treatment. New York: Grune & Stratton.
- Hilgard, E., & Bower, G. (1975). Theories of Learning (4th ed.). Englewood Cliffs, New Jersey: Prentice Hall.
- Howe, J., Dickason, E., Jones, D., & Snider, M. (eds.). (1984). The Handbook of Nursing. New York: John Wiley & Sons.
- Hudgel, D., & Madsen, L. (1980). Acute and Chronic Asthma a Guide to Intervention. American Journal of Nursing. 80(10), 1791-1795.
- Hume, K. (1970). Asthma; a Guide for Patients. London: Health Horizon.
- Jospe, M., Wieberding, J., & Cohen, B. (1980). Psychological Factors in Health Care. Lexington, Mass.: Lexington Books.
- Kaufman, J., & Woody, J. (1980). For Patients with COPD: Better Living through Teaching. Nursing 80, 10(3), 57-61.
- Kestenbaum, V. (1982). The Humanity of the Ill Phenomenological Perspectives. Knoxville: The University of Tennessee Press.

- Kirilloff, L., & Tibbals, S. (1983). Drugs for Asthma, A Complete Guide. American Journal of Nursing, 83(1), 55-61.
- Lauer, P., Murphy, S. & Powers, M. (1982). Learning needs of cancer patients: a comparison of nurse and patient perceptions. Nursing Research, 31(1), 11-16.
- Lewin, K. (1935). A Dynamic Theory of Personality. New York: McGraw-Hill.
- Lewin, K. (1951). Field Theory in Social Science. New York: Harper & Row Pub.
- Lipowski, Z. (1969). Psychosocial Aspects of Disease. Annals of Internal Medicine, 71, 1197-1206.
- Luckmann, J., & Sorensen, K. (1980). Medical-Surgical Nursing (2nd ed.). Philadelphia: W.B. Saunders Co.
- Martindale, H. (1984). Evaluation of an Asthma Education Programme. The New Zealand Journal of Physiotherapy, 12(2), 33-34.
- Mechanic, D. (1962). The Concept of Illness Behavior. Journal of Chronic Disease, 15, 189-194.
- Miller, J. (1983). Chronic Illness, Overcoming Powerlessness. Philadelphia: F.A. Davis.
- Moos, R. (Ed.). (1977). Coping with Physical Illness. New York: Plenum Medical Book Co.
- Murray, R., & Zentner, J. (1979). Nursing Assessment and Health Promotion Through the Life Span (2nd ed.). Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Muzzuca, S. (1982). Does patient education in chronic disease have therapeutic value? Journal of Chronic Diseases. 35, 521-529.
- Ornstein, A. (1977). An Introduction to the Foundations of Education. Chicago: Rand McNally.
- Polit, D., & Hungler, B. (1983). Nursing Research (2nd ed.). Philadelphia: J.B. Lippincott Co.
- Rankin, S. & Duffy, K. (1983). Patient Education: Issues, Principles, and Guidelines. Philadelphia: J.B. Lippincott Co.

- Redman, B. (1976). The Process of Patient Teaching (3rd ed.). St. Louis: The C.V. Mosby Co.
- Redman, B. (1980). The Process of Patient Teaching (4th ed.). St. Louis: The C.V. Mosby Co.
- Redman, B. (1981). Issues and Concepts in Patient Teaching. New York: Appleton-Century-Crofts.
- Rifas, E. (1983). Teaching Patients to Manage Acute Asthma the Future is Now. Nursing 83, July, 11-14.
- Sexton, D. (1981). Chronic Obstructive Pulmonary Disease. St. Louis: C.V. Mosby.
- Smith, J. (1982). Asthma: Plan of Action. Nursing Mirror, 154(19), 60-62.
- Squyres, W. (1980). Patient Education: An Inquiry Into the State of Art. New York: Springer.
- Statistics Canada. (March, 1984). Mortality: Summary List Of Causes Vital Statistics. Vol III, 1982. Ottawa: Minister of Supply & Services.
- Statistics Canada. (July, 1984). Hospital Morbidity 1979-1980, 1980-1981. Ottawa: Minister of Supply & Services.
- Stern, A. (1981). Asthma and Emotion. New York: Gardner Press.
- Strauss, A. & Glaser, B. (1975). Chronic Illness and the Quality of Life. St. Louis: The C.V. Mosby Co.
- Swenson, L.C. (1980). Theories of Learning. Belmont: Wadsworth.
- University of British Columbia Model Committee. (1980). The University of British Columbia Model for Nursing. School of Nursing, University of British Columbia, Vancouver, British Columbia.
- Van Dam Anderson, S., & Bauwens, E. (1981). Chronic Health Problems. St. Louis: The C.V. Mosby Co.
- Young, P. (1980). Asthma Allergies: An Optimistic Future. Washington: U.S. Department of Health and Human Services.
- Zar, J. (1984). Biostatistical Analysis. Englewood Cliffs, New Jersey: Prentice Hall Inc.

**APPENDICES**

Appendix A  
Demographic and Personal  
Interview Schedule

Code Number \_\_\_\_\_

1. Sex? ☐ Female  
☐ Male
2. Dependents (children)? \_\_\_\_\_
3. Age? \_\_\_\_\_
4. Occupation? \_\_\_\_\_
5. Highest education attained? \_\_\_\_\_
6. Confidant? Who? \_\_\_\_\_
7. How long have you had asthma? \_\_\_\_\_
8. Approximately when do you have asthma attacks (seasonally-related)? \_\_\_\_\_
9. How much does asthma interfere with your daily needs and activities? ☐ Seldom  
☐ Mildly  
☐ Moderately  
☐ Extensively
10. Have you ever been hospitalized because of asthma? \_\_\_\_\_
11. If yes, how many times? \_\_\_\_\_
12. How many medications do you take for asthma? \_\_\_\_\_
13. If yes, how often do you take them? \_\_\_\_\_
14. Allergens and irritants which can precipitate asthma? \_\_\_\_\_
15. What medical treatment is prescribed for you, other than medications for asthma? \_\_\_\_\_



16. How often do you seek professional health care due to asthma? \_\_\_\_\_
17. Do you smoke? \_\_\_\_\_
18. How many times per week do you exercise, and what type of exercise? \_\_\_\_\_
19. Have you ever had health education related to how to manage asthma? From whom? \_\_\_\_\_

Appendix B  
Interview Schedule

1. What impact has asthma had on you?
2. Has asthma caused you any problems in your daily activities, or changed your lifestyle pattern?
3. Can you think of any other concerns you have in relation to the impact that asthma has had on you?
4. If the participant does not address all of the nine needs in the The U.B.C. Model for Nursing (1980),\* the interviewer will ask the participant if she/he has experienced any problems in relation to the remaining specific needs. For example, in relation to the need for respect of self, by self and others, the interviewer will ask: has asthma influenced the way you feel about yourself and others?
5. What kinds of things do you want to know more about that could help you manage the impact of asthma?
6. What questions do you have about asthma, its management, or about how you can cope better with it?

---

U.B.C. Model Committee. (1980). The U.B.C. Model for Nursing. Faculty of Nursing, University of British Columbia, Vancouver, B.C.

## Appendix C

## Letter to the Physician

Dear

I am a Master's student in nursing at the University of British Columbia. The unique health problems, and needs for health education of young adults who have asthma are a major concern of mine. I believe that a better knowledge and understanding of this client group will facilitate nurses and other health professionals in planning health education that is tailored to the specific needs of the young adult with asthma.

For these reasons, I would like to learn more about this client group. Therefore, I have planned a research study to focus on young adults with asthma to identify and describe first, young adult perceptions of their health problems related to asthma; second, their perceptions of their learning needs; and third, to determine relationships between selected demographic and personal variables and perceived learning needs.

I will need to interview approximately twenty sample participants between the ages of 20-45 years. Would you be willing for potential participants to be recruited from your practice? Recruitment could occur in the following way. Clients who meet the criteria for the research could be recruited as they come in to keep an appointment time at the clinic or unit. They could be informed of the purpose of the research, and what would be involved if they decide to participate. This is explained in detail in a cover letter that may be given to prospective subjects. Those interested in participating could leave their name and phone number with someone at the clinic. I could then contact them at a later date to set a convenient interview time.

The selection criteria are as follows:

1. The individual must speak English.
2. Young adults diagnosed with extrinsic asthma, and are between the ages of 20-45 years.
3. Young adults with asthma, but are without other major health problems.

Appendix D  
Physician Consent

I, the undersigned, give permission to Heather Richardson, R.N., B.S.N., (M.S.N. Candidate) to contact consenting young adults with asthma from my practice for the purpose of her research study.

Physicians' Signature \_\_\_\_\_

Researcher's Signature \_\_\_\_\_

Dated at \_\_\_\_\_, this \_\_\_\_\_  
day of \_\_\_\_\_. 1985.

## Appendix E

## Cover Letter to Participants

Dear Participant:

I am a graduate student in the School of Nursing at the University of British Columbia. The health problems, concerns, and needs for health education of young adult persons who have asthma are a major concern of mine. Your unique experience with asthma would give valuable information that would ultimately help other persons with asthma. It would give nurses a better understanding of the problems and needs of persons such as yourself. It would also help nurses in planning health teaching that would assist those who have asthma in maintaining feelings of health and well-being.

Therefore, I have planned a research study, and I am inviting you to participate in it. Any information that you are willing to share of your unique health problems related to asthma, and of your needs for health education that could help you with your problems, will be of great value.

Your participation would involve an interview with me, at a time convenient to you. The interview will be recorded on an audio tape. The tape will be identified by a number, and your name will not be associated with the recorded information. Only myself and my thesis committee (two nursing faculty members) will have access to the tapes. At the end of the study, the tapes will be erased. You have the right to refuse to participate in this research study and you are free to withdraw at any time, without jeopardizing the health care you are receiving. You may have the option of not answering some of the questions if you wish.

Upon completion, this study will be documented in a thesis. It will be available to you, if you wish, through the U.B.C. libraries.

Appendix F  
Participant Consent

I, the undersigned, understand the nature of Heather Richardson's research study as described in the cover letter and give my consent to participate in her research.

Participant's Signature \_\_\_\_\_

Researcher's Signature \_\_\_\_\_

Dated at \_\_\_\_\_, this \_\_\_\_\_,  
day of \_\_\_\_\_. 1985.