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**EMERGENCY DEPARTMENT NURSES KNOWLEDGE OF AND ATTITUDES
TOWARD PARASUICIDE**

by

KIM M. WATSON

**A Thesis
Submitted to the Faculty of Graduate Studies and Research
through the Faculty of Nursing
in Partial Fulfillment of the Requirements for
the Degree of Master of Science at the
University of Windsor**

Windsor, Ontario, Canada

2002

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ABSTRACT

Background: The care of parasuicidal patients is a challenge for the emergency department (ED) nurse. Though several published studies have examined knowledge and attitudes in relation to parasuicide, only six were found that had looked at the ED nurse and none have been conducted in Canada.

Aim: This descriptive study examined Ontario ED nurses' knowledge about, and attitudes towards, parasuicide. The phenomenon of *nursing agency*, a central concept within Orem's (1995, 2001) Theory of Nursing System, provided a useful framework to examine the relationships among the basic conditioning factors (age, gender, sociocultural orientation, clinical specialty, resource availability, nursing education, professional and personal experiences), knowledge about, and attitudes towards, parasuicide.

Methods: A random sample of 400 Ontario ED nurses, stratified by gender, was surveyed by mail. A total of 113 ED nurses completed the survey for a response rate of 28%. Demographic information was collected and research instruments included the Suicide Opinion Questionnaire (Domino, MacGregor, & Hannah, 1988-1989; Rogers & DeShon, 1992, 1995), the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960), and the Hollingshead Four Factor Index of Social Status (Hollingshead, 1978). Open-ended questions were also used to examine professional and personal experiences with parasuicide. Responses were analyzed using descriptive statistics, frequency tables, bivariate correlations, hierarchical multiple regression, and content analysis.

Results: The knowledge level of the ED nurse was poor. The context of the situation surrounding the parasuicidal patient was found to play an important part in the ED nurses' attitudes. Having a personal experience with suicide was found to have a more positive impact on attitudes than past professional experiences.

Conclusions: What constitutes "good knowledge" about, and attitudes toward, parasuicide needs to be examined further using improved reliable and valid measurements to determine their influence on *nursing agency*. Through the use of vignettes, or a rigorous qualitative approach, a more accurate and hence, more useful perception of nurses' attitudes may be examined. Standards of care need to be developed, evaluated and researched. It is time to engage communities in an effort to provide increased support services and to assist in the development of a comprehensive national strategy guided and implemented by federal and provincial participation. Attempts should be made to modify and support positive attitudes in ED nurses by means of training workshops, educational programs, adequate support, expert consultants, and available resources. Further theory development and research is needed to study basic conditioning factors (age, gender, sociocultural orientation, clinical specialty, resource availability, nursing education, professional and personal experiences) in relation to nursing agency, and the effectiveness of nursing interventions designed to promote positive outcomes in this patient population.

Keywords: parasuicide, emergency department nurses, nursing agency, knowledge, attitudes, basic conditioning factors

DEDICATION

The passion that fueled this research began many years ago, unknown to me until I matured as a person and a nurse. Suicide touches our lives more than we realize; few are left untouched. This work is dedicated to two women who I lost as a result of suicide, my mother, Mary, and one of my best friends, an Emergency Department nurse, Susan. This dedication is not to recognize how they died, but how they lived. These two souls touched many lives in many ways ... they were angels. It was due to their love, their caring, their generosity, their wisdom and their kindness, that these angels abated the suffering of many. Yet they could not find it within themselves to see all the blessings they held and to share it with themselves. It is time we do not lose another angel on earth, it is time we help those who cannot help themselves. So honour these women with me, and let's change tragedy into hope!

*We can cure physical diseases
with medicine
but the only cure for loneliness,
despair and hopelessness is
love.*

*There are many in the world
who are dying
for a piece of bread
but there are many more dying
for a little love.*



*Mother Teresa
(1910 – 1997)*

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The journey that this thesis took me through was worth every moment. Though its completion has brought my journey to an end, the experience has meant more. There are essences of the journey that will never leave me, such as those who assisted and touched me along the way that deserve my deepest appreciation and recognition.

First and foremost, to my advisor Beth Horsburgh, who without her commitment to me and this project, her direction and encouragement throughout its development and implementation, and despite the hurdles we both jumped and overcame, she never gave up on me. She truly exemplifies the nursing professional and mentor I aim to be. This thesis was important to me, and she recognized and honoured this. It is with the greatest respect and honour I extend my love and deepest appreciation to her; she has taught me a lot!

My dearest thanks is also extended to my co-chairperson, Dr. Sheila Cameron; my internal reader, Dr. Laurie Carty; and to my external reader, Dr. Michael Kral; for their assistance and support with this thesis. I would also like to recognize Dr. M. Kaye Fawdry, who for a period of time was the acting coordinator for the Graduate Program. She provided her assistance and support when I needed it most, thanks! I must also extend my unending gratitude and appreciation to Robyn Nease. Without her direction, support and skills, my statistical analysis would never have been done.

This study would not have been possible without the ED nurses who took time from their busy schedules and participated in this study. Sharing their professional and personal feelings regarding parasuicide was not an easy task at best. These nurses need to be recognized for their important contribution to emergency nursing.

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TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	iii
DEDICATION	v
ACKNOWLEDGEMENTS	vi
List of Tables	xi
List of Figures	xi
Chapters	
I. Overview	1
Theoretical Framework	3
II. Review of the Literature	10
Knowledge of Suicide and Parasuicide	10
Attitudes Towards Suicide and Parasuicide	12
Age as a Basic Conditioning Factor in Relation to Knowledge and Attitudes	16
Gender as a Basic Conditioning Factor in Relation to Knowledge and Attitudes	18
Sociocultural Orientation as a Basic Conditioning Factor in Relation to Knowledge and Attitudes	19
Clinical Specialty as a Basic Conditioning Factor in Relation to Knowledge and Attitudes	22
Resource Availability as a Basic Conditioning Factor in Relation to Knowledge and Attitudes	25
Nursing Education as a Basic Conditioning Factor in Relation to Knowledge and Attitudes	26
Professional Experience as a Basic Conditioning Factor in Relation to Knowledge and Attitudes	28

Personal Experience as a Basic Conditioning Factor in Relation to Knowledge and Attitudes	30
Research Questions	31
III. Methodology	33
Procedures for Subject Selection	33
Ethical Considerations	34
Procedure	35
Sample	36
Measures	37
Suicide Opinion Questionnaire (SOQ)	37
Open-Ended Questions Related to Parasuicide	45
Measurement of Extraneous Variables	45
Data Analysis	46
IV. Results	49
Research Questions:	
1. What is the knowledge held by Ontario ED nurses regarding parasuicide behaviour?	50
2. What is the relationship, if any, between selected BCFs and knowledge of Ontario ED nurses about parasuicide?	55
3. What are the attitudes held by Ontario ED nurses towards caring for the patient who evidences parasuicide behaviour?	61
4. What is the relationship, if any, between selected BCFs and attitudes of Ontario ED nurses about parasuicide?	69
5. What are the relative contributions of selected BCFs to Ontario ED nurses' knowledge of and attitudes towards parasuicide?	77
6. What is the relationship, if any, between parasuicide knowledge and parasuicide attitudes in Ontario ED nurses?	80

7. What is the impact of Ontario ED nurses' personal experiences on knowledge of and attitudes toward parasuicide?	81
V. Discussion	86
Overview	86
Limitations and Strengths	87
Discussion of Research Findings in Relation to Previous Research	92
Knowledge of Parasuicide	92
Attitudes Towards Parasuicide	96
Implications of Research Findings	102
Nursing Practice.	102
Advanced Nursing Practice	107
Nursing Education and Policy	108
Theory Development	111
Implications for Future Research	114
Conclusion	117
References	119
Appendices	
Appendix A: Sample Letter to be Distributed to All Participants for First Mailing	129
Appendix B: Sample Letter to be Distributed to All Participants for Second Mailing	130
Appendix C: Demographics	131
Appendix D: Suicide Opinion Questionnaire	137
VITA AUCTORIS	142

List of Tables

<u>Table</u>	<u>Page</u>
1 Means, SD's & Reliability Coefficients for Research Measures	43
2 Subscale Measures and the SOQ Items	44
3 Bivariate Correlations (Pearson's R) among SOQ Knowledge and Attitude Subscales, and the BCFs	56
4 Summary of Regression Analysis for Variables Predicting <i>Cry for help</i> Subscale	77
5 Summary of Regression Analysis for Variables Predicting <i>Religion</i> Subscale..	79
6 Summary of Regression Analysis for Variables Predicting <i>Emotional Perturbation</i> Subscale	79
7 Summary of Regression Analysis for Variables Predicting <i>Personal Defect</i> Subscale	80

List of Figures

<u>Figure</u>	<u>Page</u>
1 Model of Basic Conditioning Factors and their Influence on Emergency Department Nurses Knowledge of and Attitudes towards Parasuicide	6
2 Theoretical / Empirical Continuum of the Theoretical Concepts and Relationships of Interest from Orem's Nursing Agency (1995) when looking at ED Nurse's Knowledge of and Attitudes towards Parasuicide	38

CHAPTER ONE

Overview

Concern about the increase in the number of deaths by suicide has prompted the World Health Organization (WHO) to include a reduction in the number of suicides among its major health goals for the year 2000. Suicide is now the sixth leading cause of death in Canada. Over 3600 individuals die as a result of suicide each year, making the suicide rate approximately 12.3 per 100,000, which means more than 10 Canadians take their own lives every day (Statistics Canada, 2000; Harrington, 1998). Suicide is identified as a higher cause of death in Canada than the United States where it is the eleventh leading cause of death, 10.7 per 100,000 (Hoyert, Arias, Smith, Murphy, & Kochanek, 2001).

Parasuicide is defined by the WHO (1986) as “An act with a nonfatal outcome, in which an individual deliberately initiates a non-habitual behaviour that, without intervention from others, will cause self-harm, or deliberately ingests a substance in excess of the prescribed or generally recognized therapeutic dosage, and which is aimed at realizing changes which the subject desired via the actual or expected physical consequences” (p. 22). Parasuicide covers a range of behaviours that are difficult to categorize in a succinct, comprehensive manner (Kreitman, Philip, Greer, & Bagley, 1969). It is a term that includes attempted suicide, but goes beyond to include a range of behaviours for which differing motives may be proposed from a failed attempted suicide to a cry for help, an impulsive self-mutilation, or someone rescued at the last minute from an act with an expected fatal outcome such as a naïve ingestion of a harmless quantity of medication in the expectation that it will cause harm (Bland, Dyck, Newman, & Orn,

1998). Parasuicidal behaviour does not include the mental health patient who was injured due to their psychosis, the person unexpectedly injured as they fixed the roof in a windstorm, or the accidental taking of an overdose of illicit drugs. Precise statistics for parasuicide are not available, but are said to outnumber suicides by 6 to 10 times (Bland, Newman, & Dyck, 1994; Costigan, Humphrey, & Murphy, 1987; Ekker, 1991; Kerkhof, Schmidtke, Bille-Brahe, De Leo, & Lonnqvist, 1994; Links, 1998; Stengal, 1970).

Immediately after a parasuicide there is a "critical period" in which suicide mortality is greatest. "More than 15% of patients who attempt suicide repeat this behaviour and one to two percent commit suicide within a year despite aftercare" (Soukas & Lonnqvist, 1992, p. 42). How the patient is treated in the first encounter greatly affects their outcome and risk of attempting suicide again (Alston & Robinson, 1992; Ansel & McGee, 1971; Goldney & Bottrill, 1980; Hawton, Marsack, & Fagg, 1981; Pederson, 1993; Sidley & Renton, 1996).

What occurs in the critical period following the attempt can greatly influence the patient's attitude, the quality of care, and the attitudes of those involved in the care. The Emergency Department (ED) is usually the first place that parasuicide patients are cared for if medical attention is sought. Unfortunately, the study of ED nurses' knowledge of and attitudes toward parasuicide is very neglected. Research studies have been done using a variety of health professionals, but rarely have ED nurses been included in these studies and the knowledge and attitudes of ED nurses examined separately. Since 1978 there are only six published research studies found that have included and examined ED nurses in their samples. These have been conducted in the United States, Ireland, Australia, England, and Finland, but not Canada. Thus, the present study explored and

described Ontario ED nurses' knowledge and attitudes regarding parasuicide and examined factors that may contribute to nurses' knowledge and attitudes.

Theoretical Framework

Nurse agency is a central concept of Orem's Theory of Nursing System (1991, 1995, 2001) and provides a useful theoretical framework for viewing nurses' knowledge of and attitudes toward parasuicidal behaviour. Orem (2001) defines nursing agency as:

The developed capabilities of persons educated as nurses that empower them to represent themselves as nurses and within the frame of a legitimate interpersonal relationship to act, to know, and to help persons in such relationships to meet their therapeutic self-care demands and to regulate the development or exercise of their self-care agency [abilities]. (p. 518)

Nurse agency is the complex, specialized abilities that nurses learn and develop in order to care for patients. It is developed and exercised for the benefit of others. These abilities can vary among nurses and are influenced by *basic conditioning factors* (BCFs); factors that are external or internal to individuals that affect nurses' abilities to engage in nursing activities at points in time (Orem, 2001). BCFs may act individually or in combination and include age, gender, developmental state, sociocultural orientation, health state, family system factors, health care system factors, patterns of living, environmental factors, and resource availability and adequacy (Orem, 2001). In addition to BCFs, nurse-specific factors such as nursing experience and education, maturity and status as a person, and roles can influence nurse agency.

Nurses must be knowledgeable regarding the patients they care for and "reflect on their practical understanding of what can be done to effect more desirable conditions and

make critical judgments about what should be done and what should be avoided” (Orem, 2001, p. 161).

Situational conditions and relationships among them at times are not known or understood because of nurses’ lack of knowledge to guide and attach meaning to observations or because of their inability or failure to observe. At times, persons are moved to and do take action without knowing the appropriateness of what they do and even at times with full knowledge of its inappropriateness (Orem, 2001, p. 162).

Valid and reliable knowledge of all three areas of nursing care (social, interpersonal, professional-technologic) is “viewed as evidence of nurses’ capabilities; their power of nursing agency” (Orem, 2001, p. 290). A positive relationship is proposed between nursing knowledge and nursing agency. Indeed, Orem views nursing knowledge as necessary (but not sufficient) for nursing agency.

According to Orem, nurses make judgments about themselves, their families, and their patients that are influenced by their attitudes.

Nurses in practice should examine the decisions they make in nursing situations in order to achieve understanding of themselves, the deliberate choices they made, their understanding of the options open at the times the choices were made, and the relationship between what they know and what they do (Orem, 2001, p. 118).

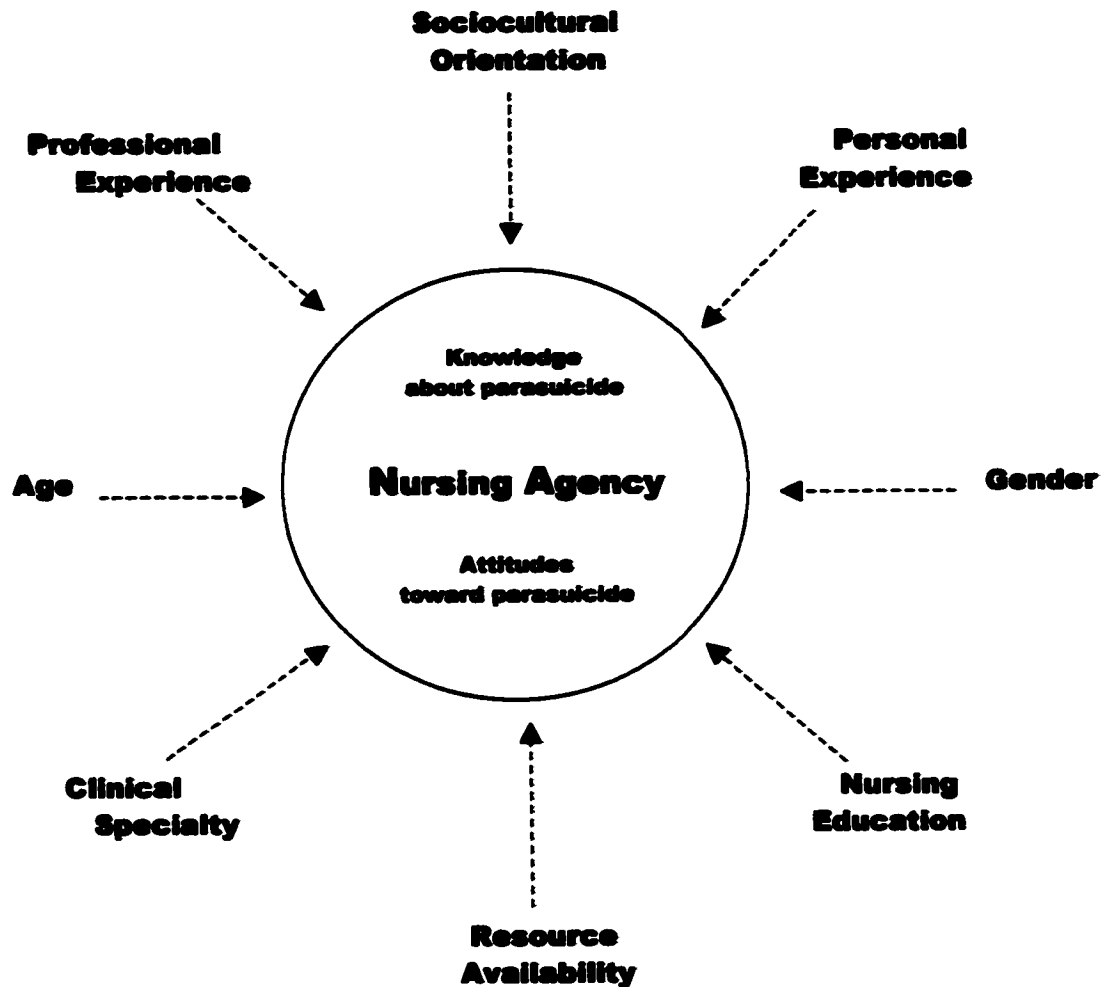
Nurses may have the knowledge of what they should do in a given situation, but what is important to both the nurse and the patient is the actual decision the nurse makes and the rationale for the decision. “Beliefs of nurses and other health care workers about their roles and the roles of others affect their interests and their willingness to function in cooperative relationships in health care situations” (Orem, 2001, p. 389). Many factors

affect the willingness of the nurse to render care. Nurses' personal value systems may be a barrier to sympathetic, caring responses to patients who they perceive are different from themselves. Consequently, nurses' attitudes are also viewed by Orem as influencing both nursing agency and nursing care ultimately provided. The direction of this relationship is not specified and would likely depend upon the nature of the attitude held (positive or negative).

Research to date on nurses' knowledge and attitudes about individuals who evidence parasuicidal behaviour has examined 8 BCFs in relation to knowledge and/or attitudes. These are depicted in Figure 1, and include age, gender, sociocultural orientation (environmental factors), clinical specialty/type of hospital (health care system factors), resource availability and adequacy, educational preparation, professional experience, and personal experience (maturity, status as a person). Hence, the construct, BCFs, provides a useful means of viewing these factors in relation to nurse's abilities to provide care to patients who evidence parasuicidal behaviour.

The age and gender of both the patient and the nurse are of considerable importance. A nurse's age and gender will not only influence how he or she will act, but also how patients will react to the individual nurse. Age "normally is closely related to the characteristics of a person's behaviour, and it has meaning in relationship to the...nursing behavior of the nurse" (Orem, 2001, p. 337). Gender of the nurse and patient can impact the nurse/patient relationship; "a male patient, for example, may be either willing or reluctant to accept assistance from a female nurse" (Orem, 2001, p. 117).

Figure 1. Model of Basic Conditioning Factors and their Influence on Emergency Department Nurses Knowledge of and Attitudes towards Parasuicide



A nurse's socioeconomic, spiritual and cultural background may influence interactions that occur in the nurse-patient relationship. Nurse agency will vary with the nurse's ability to accept others. Nurses need to recognize similarities and differences in their patterns of living and how their patterns may differ from those of patients. "Some nurses have a tendency to look at certain patterns of living as inferior merely because these practices are different from their own or from their ideal" (Orem, 2001, p. 117).

Hospitals provide specialized helping services, either serving a particular population, like pediatric; or by providing various specialized services, such as sexual assault crisis treatment. Nurses also specialize their practice, whether through advanced education, certification, or the type of area they work in. "Nurses' roles become specific in actual nursing situations by their knowledge of why and how an individual, singly or as a member of a family or group, can and should be helped through nursing" (Orem, 2001, p. 87-88). Therefore, the type of unit or hospital in which the nurse works may also influence nurse agency.

Within nurses' work settings, human (e.g., social workers, clinical nurse specialists, medical specialists) and physical (e.g., supplies, location, equipment) resources, are not always available. If resources needed for the production of nursing care are unavailable, nurse agency may be curtailed, which could create a stressful situation for both nurse and patient. "The critical feature, however, is the fit between the kind and amount of health care needed by people and the health care services available to them and used by them" (Orem, 2001, p. 189).

Positions nurses hold depend on the nurses' educational preparation, the type of license or certificate held, past experience, and their present level of competency. The type of educational preparation that each nurse has received varies, from hospital-trained individuals to those with graduate level preparation. Individual nurses may also possess certification based on specialty (e.g., emergency room nursing). The nursing profession demands that nurses continue to keep abreast of scientific research, technological development, and improvements in practice related to the diagnosis and treatment of

patients. Additional training and education that the nurse may have received is very individualized and may also influence nursing agency.

Orem (2001) views nursing as “a practical endeavor” (p. 161). Actual nursing experiences affect nurse agency. “Nurses function in nursing practice situations as persons with developed and developing qualities of personality and character. Nurses work in person-to-person relationships with others as they not only exercise but also continue to develop the capabilities that define nursing agency at specific times” (Orem, 2001, p. 293). The degree and manner in which nursing agency develops after graduation can be affected by the concrete situations of nursing practice.

Individual personal experiences of the nurse can influence his/her nursing agency. How a nurse has matured and perceives himself or herself as a person will influence the nurse-patient relationship. Family and community demands, such as family stressors, lack of energy, or preoccupation with matters outside the nursing situation, can affect a nurse’s ability to provide care. Positive effects can also result. Demands can stimulate a nurse’s interest or problem solving skills, facilitating motivation, wisdom, and professional maturity. Mature nurses have a realistic view of themselves (Orem, 2001). Nurses need to consider themselves as persons, not just as nurses, when providing care.

In summary, Orem’s (1995, 2001) conceptualization of nursing agency and the BCFs provide a useful framework from which to examine the knowledge and attitudes of ED nurses toward parasuicide. Orem supports the benefits of knowledge and views it as necessary for nursing agency. Attitudes, given the situational context in which care is given, also influence nursing agency. External and internal influencing factors, called

BCFs, act individually or in combination at points in time to affect a nurse's ability to provide care to patients who have evidenced parasuicide behaviour.

CHAPTER TWO

Review of the Literature

Review of the literature supports the view that the study of knowledge and attitudes of parasuicide in ED nurses is a much-neglected area. Though the literature indicates growing interest in evaluating and measuring the knowledge and attitudes of health care professionals toward individuals who attempt suicide, variables that may contribute to a strong knowledge base, or a positive or negative attitude, have seldom been examined. The few completed studies evidence methodological limitations. A review of the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Psychological Abstracts from 1975 to date, identified various studies that explored the knowledge and attitudes of health care professionals toward patients who evidence parasuicidal behaviour. Of the 22 studies to be discussed only six studies examined knowledge and/or attitudes of ED nurses.

Knowledge About Suicide and Parasuicide

Knowledge is considered the theoretical or practical understanding of a subject; the sum of what is known and understood, as opposed to the opinion of what is believed. Knowledge of parasuicide behaviour was examined in five descriptive studies. None of these studies included ED nurses. Overall, results indicated that nurses' knowledge was poor. However findings of one study were contradictory. Methodological limitations included reliance upon relatively small convenience samples. A variety of different measures were used to measure nurses' knowledge regarding parasuicide behaviour, and support for reliability and validity was weak and sometimes not reported.

In an exploratory study done in Ontario, DeRose and Page (1985) found 43 psychiatric nurses' knowledge level to be less than that of 38 psychologists and 45 social workers, but greater than that of 42 lay persons. The Suicide Opinion Questionnaire (SOQ) (Domino, Moore, Westlake, & Gibson; 1982) was used to measure knowledge using six items that directly concerned popular misconceptions about suicide. Knowledge was measured by identifying the percentage of responses that agreed with selected myths about suicide.

Similarly, 184 nurses from a variety of clinical areas in North Carolina (community health, medical/surgical, psychiatry, pediatrics, and maternity) evidenced poor knowledge regarding suicide using the SOQ (Alston & Robinson, 1992). Differences between clinical areas were not reported. The most consistent comment made by respondents was that they knew very little about suicide.

When Elliott, Pitts and McMaster (1992) compared 140 Zimbabwe nurses at three stages of their profession (first year students, third year students, and RNs with an average of 10 years of experience) knowledge was found to be poor. Results did not vary across the three samples and not one of the sample groups answered even 50% of items correctly. The questionnaire was developed with 10 knowledge items measuring current facts about suicide in the local area. Reliability and validity of the measure was not discussed.

Lester and Castromayor (1994) reported that 91 American student nurses were more accurate in their knowledge on suicide than 147 Philippine students, but American nurses were still incorrect an average of 25% of the time. A previously developed, 16-item

inventory of myths on suicide was used; reliability and validity of the measure was not discussed.

In contrast, Sidley and Renton (1996) found 107 English nurses and nursing assistants working on general wards possessed a sound knowledge base regarding suicide. A 20-item questionnaire, (reliability and validity was not reported) was used to measure knowledge by evaluating responses to some of the facts about the risk factors relating to future parasuicide intent.

Further research is needed to examine ED nurses' knowledge of parasuicide. An instrument with strong empirical support for reliability and validity that specifically measures knowledge regarding suicide/parasuicide behaviour is necessary. Longitudinal research that examines the development of knowledge over time in response to basic nursing education and continuing education would be particularly helpful.

Attitudes Towards Suicide and Parasuicide

Research has reported conflicting results regarding health professionals' attitudes toward parasuicide and there is some question as to what attitudes these studies were actually measuring. Most definitions on attitude appear to agree it involves a tendency to react in a certain manner when confronted with a specific stimuli or situation (Oppenheim, 1992). Ajen (1988) maintains that a person's attitude towards another person involves them reacting favourably or unfavourably to that person. Attitudes towards suicide and parasuicide behaviour are known to be complex and multidimensional, therefore we can assume that during an interaction between two people, their attitudes towards each other will depend upon their belief about each other. This may include information, knowledge, and thoughts about that individual's behaviour

(McLaughlin, 1994). Some studies related the attitudes towards the actual care and treatment the patient received; others examined how health professionals looked at suicide itself. The purpose of this research was to look at how attitudes were related to the actual care and treatment of the patient by the nurse.

Although some authors found negative or indifferent attitudes (Ansel & McGee, 1971; Bailey, 1994; Costigan, Humphrey, & Murphy, 1987; DeRose & Page, 1985; Elliot et al., 1992; Goldney & Bottrill, 1980; O'Brien & Stoll, 1977; Pallikkathayil & Morgan, 1988; Soukas & Lonnqvist, 1989, 1992), others reported caring for these individuals in a positive, neutral, sympathetic or rewarding way (Anderson, 1997; Ghodse, 1978; Ghodse, Dhaffari, Bhat, Galea, & Qureshi, 1986; Hawton, Marsack, & Fagg, 1981; Long & Reid, 1996; McLaughlin, 1994; Pederson, 1993; Platt & Slater, 1987; Ramon, Bancroft, & Skrimshire, 1975; Samuelsson, Asberg, & Gustavsson, 1997; Sidley & Renton, 1996). Only one study reported support for both a positive and negative attitude. Sidley and Renton (1996) noted that though nurses generally displayed professional attitudes while treating parasuicidal patients, such as their view that these patients deserve care on an equal level as others who present to the ED, they appeared to show negative personal reactions after caring for these patients, such as frustration, depression and/or feelings of being uncomfortable. They also reported that over 50% of nurses studied felt their colleagues did not like working with parasuicidal patients. Viewing the research, it is hard to account for the fact that half of the studies reported negative nurses' attitudes, such as not wanting to work with parasuicidal patients, treating them with anger, having reactions to caring for them like depression, or seeing parasuicide patients as only seeking attention. While an equal number of studies reported positive nursing attitudes,

such as being kind and caring, treating them as seriously as patients with chest pains, being sympathetic and empathetic to their situation. Both groups examined similar samples and tended to exhibit the same kinds of methodological limitations including samples of convenience, inferior research designs, a variety of instruments with unidentified validity or reliability, lack of a theoretical framework to guide the research, and limited generalizability of findings.

When looking at the research by the country it was conducted in, inconsistent results occur in studies done in the United States and England. Three of four studies in the United States found attitudes to be negative when sampling different groups of health care professionals. Negative attitudes were described as labeling the parasuicide patient as disreputable or bad, committing a serious moral transgression, or describing them as someone they would be ashamed of. Of the seven studies done in England using different measurement tools one found negative attitudes, five reported positive, and one reported both negative and positive results. Results from the studies done in England reported more positive attitudes than in other countries. Positive attitudes were described as being sympathetic, communicating openly, an acceptable response to their actions, a respect for patients' right to make a decision regarding their life, and that parasuicidal patients are not difficult to care for. This incites one to speculate on the factors that may have influenced nurses' attitudes. One might question the relative strength of educational programs, or the cultural milieu.

Three quantitative studies done in various parts of Australia with various healthcare professionals reported negative findings. However, they used different research measures and did not report reliability (Bailey, 1994; Costigan et al., 1987; Goldney & Bottrill,

1980). Negative attitudes included labeling parasuicide patients as manipulative and were displayed by treating them with intolerance and very unsympathetically. In the two Northern Ireland studies nurses were surveyed from different clinical specialties using a different research approach and the attitudes were reported as positive (Long & Reid, 1996; McLaughlin, 1994). These nurses readily assessed and identified the seriousness of the situation, provided care immediately, were sympathetic, and did not label the patients as attention seekers.

Four studies used a qualitative approach to study nurses' attitudes. An interview process was used in each study, though the exact qualitative method and how rigour was established were not discussed. Long and Reid (1996) and Pallikkalayil (1988) reported negative attitudes; described as difficulty in communicating, an avoidance to getting involved, and/or by feeling angry towards the patient. Hawton, et al. (1981) and Ramon et al. (1975) reported positive attitudes, nurses were sympathetic and showed a greater willingness to help the patient evidencing parasuicidal behaviour.

Of all the studies examined, only four used the same measure, the Suicide Opinion Questionnaire (SOQ) (Domino et al., 1982), which has reported satisfactory reliability and validity. Two studies conducted with ED nurses used only a portion of the 100 items on the SOQ; 14 items by McLaughlin (1994) and 16 items by Anderson (1997); both revealed positive attitudes, such as supporting the patients decision and right to die, not labeling the patient as mentally ill or difficult, and even found they did not get irritated caring for the parasuicide patient. Aggregation of findings across these studies is difficult since the particular items used in each study were not reported. Studies by Alston and Robinson (1992) and DeRose and Page (1985) used all 100 items of the SOQ. Although

they were conducted with samples of different types of health care professionals, both reported poor knowledge. Only Alston and Robinson used a random, rather than a convenience sample. Sample sizes in the studies ranged from 66 to 185 participants.

Six studies, all from different countries, examined attitudes of ED nurses toward parasuicidal behaviour. Three reported negative attitudes (Bailey, 1994; Pallikkalayil & Morgan, 1988; Soukas & Lonnqvist, 1989, 1992) and three reported positive attitudes (Anderson, 1997; Ghodse, 1978; McLaughlin, 1994) toward suicide. Pallikkalayil and Morgan used the only qualitative approach, reporting negative attitudes, though the type of qualitative approach used and how rigour was established were not discussed. The two other studies that reported negative attitudes (Bailey, 1994; & Soukas & Lonnqvist, 1989, 1992) used various quantitative approaches and nonparametric statistics. Anderson, who found nurses were positive in their attitude by not getting irritated and dealing with the parasuicide patient easily, used nonparametric statistics and an attitudinal measure with published support for reliability and validity, (the SOQ). Ghodse (1978) and McLaughlin (1994) used parametric statistics in their studies and reported similar positive attitudes, though only McLaughlin used the SOQ, reporting support for reliability and validity. It is difficult to account for why results vary. Clearly additional research is needed to examine the attitudes of nurses using a measure(s) with published support for reliability and validity, and with nurses from a variety of clinical areas and specialties, especially the ED where patients who evidence parasuicide behaviour are generally first seen.

Age as a Basic Conditioning Factor In Relation To Knowledge and Attitudes

Only one research study examined the relationship between age and suicide knowledge. Lester and Castromayer (1994) reported that though the 91 American nursing

students (mean age 32 years) scored higher and were significantly older than the 147 Philippine students (mean age 20.5 years) studied, age did not correlate with the total knowledge score obtained using the suicidal myths inventory. Research needs to be done on the effect of ED nurses' age in relation to knowledge about suicide.

Six studies examined age as a factor influencing attitudes toward suicide with varying results. It is difficult to aggregate findings across these studies as each used a different measure of attitude, and reliability and validity were seldom reported.

Ghodse's (1978) study of 1248 British ED staff (nurses, doctors, ambulance personnel, and others) found no difference among different age groups on their attitudes toward three different scenarios of a drug-overdose patient. Attitudes of all groups were generally positive, with nurses having scored higher, indicating a more favourable attitude towards patients than physicians and ambulance personnel. How this favourable attitude was displayed was not explained. Junior nurses evidenced a higher percentage of favourable responses to all types of patients, except those with deliberate overdoses. Later Ghodse et al. (1986) conducted a replication study with 323 Maltese ED staff, which largely supported their earlier findings with regard to age and attitude toward drug overdose.

Three studies that only included nurses in their sample reported that the older the nurse, the more positive his/her attitude (Alston & Robinson, 1992; McLaughlin, 1994; Samuelsson et al., 1997). But viewed further, these results are difficult to aggregate due to measurement differences. Alston and Robinson used the SOQ to measure the attitudes of 184 American nurses, as did McLaughlin with 95 Irish ED nurses. However, they each chose only selected items from the SOQ in their final measures. Samuelsson et al.

developed their own instrument, the Understanding of Suicide Attempt Patient Scale (USP), to evaluate attitudes of 197 Swedish psychiatric nurses and attendants.

In an exploratory study of English nurses, Anderson (1997) reported no difference in attitudes in relation to age amongst the ED or Community Mental Health Nurses (CMHNS) nurses studied. Both groups had generally positive attitudes shown by being accepting of suicidal behaviour, not viewing suicide attempters as mentally ill, readily caring for the suicidal patient in a professional manner, and seeing suicidal behaviour as a form of communication. However, CMHNS who were greater than 49 years of age scored items more negatively than those aged 30-39. A pilot study was done to evaluate 16-attitudinal statements selected from the SOQ (Domino et al., 1982). Reliability and validity was not reported.

Further research is needed to examine the relationship between ED nurses' age and attitudes toward parasuicide. A longitudinal study utilizing a representative sample and parametric statistics would be particularly useful to examine attitudes over time.

Gender as a Basic Conditioning Factor In Relation To Knowledge and Attitudes

Lester and Castromayer (1994) were the only researchers to look at the effects of gender on suicide knowledge using a questionnaire with 91 American (12% male) and 147 Philippine (23% male) student nurses. Sex did not correlate significantly with the total score on the suicidal myths. Given the limited research gender should be examined in future research on ED nurses' suicide knowledge, and adequate numbers of men should be sampled.

Five research studies were published which examined gender and its relation to nurses' attitudes toward suicide, with only one by nursing (Bailey, 1994). In four of the

five studies there were no significant differences between men and women (Bailey, 1994; DeRose & Page, 1985; Ghodse, 1978; Platt & Salter, 1987). Viewed together, these four studies suggest there is not a relationship, although it is difficult to aggregate findings as the researchers used different measures and approaches, and only two of the studies reported the reliability and validity of the measures (DeRose & Page, 1985; Platt & Salter, 1987).

In contrast, Samuelsson et al. (1997) studied 197 psychiatric nursing personnel using a newly developed Understanding of Suicide Attempt Patient Scale (USP) questionnaire. Three vignettes involving parasuicidal patients were classified on a visual analogue scale (VAS). Women were found to be more sympathetic towards suicide attempters than men. The USP questionnaire was newly developed but reliability was examined and reported, and a significant correlation between USP and VAS scores was supported. Further testing of the measures is needed.

Statistics indicate that men in nursing remain a minority, however growing numbers of men are entering nursing schools and becoming the focus of recruitment efforts (Okraie, 1990, 1993). Therefore, it is important to examine gender differences in relation to ED nurses' attitudes towards suicide. Studies with an adequate number of both men and women participants are needed.

Sociocultural Orientation as a Basic Conditioning Factor In Relation To Knowledge and Attitudes

In looking at suicide knowledge and sociocultural orientation, Lester & Castromayer (1994) found that 91 American student nurses were more accurate in their knowledge of suicide than 147 Philippine student nurses. However, the American nurses were incorrect

on roughly 25% of items on average, indicating a need for increased education overall.

Reliability and validity of the 16-item inventory of myths about suicide was not discussed. Given that the samples represented two different cultures, the instrument may not have been valid in both.

Four studies, two using ED nurses, examined religious or spiritual beliefs and their relationship to attitudes toward suicide (Bailey, 1994; DeRose & Page, 1985; Elliot et al., 1992; Pallikkathayil & Morgan, 1988). Results supported a relation between religion and attitudes toward parasuicide. It is difficult to aggregate findings across these studies as each examined a different aspect of religion, and used a different research approach and measurement. Bailey (1994) looked at participants' religious beliefs and found that those with strong beliefs were more positive about the role of chaplains and ministers in the care of the parasuicidal patients.

DeRose & Page's (1985) exploratory study of 126 health professionals (psychiatric registered nurses, psychologists, and social workers) and 42 lay persons in Ontario, found that religious denomination was related to nurses' intentions about caring for individuals who attempt suicide. They reported significant results when examining religion using the SOQ (100-items). Catholic respondents were less likely than any other group to believe those with incurable illnesses should be allowed to commit suicide in a dignified manner; they felt suicide violated God's laws. Jewish subjects believed most strongly in the individuals' right to suicide and the importance family played in the situation. Jewish and Protestant subjects were most likely to feel sorry for the suicide victim.

In a cross-sectional, correlational study, Elliot et al. (1992) compared the relationship of beliefs held by 140 nurses (first year students, third year students, and nurses with an

average of 10 years of experience) in Zimbabwe. First they examined if the nurses had traditional Shona beliefs (ancient cultural group in Zimbabwe) and/or Western medical beliefs towards suicide. The Shona peoples' beliefs about suicide include that it is the most feared death. Suicide is seen as unnatural; the soul becomes an evil spirit, or ngozi that makes the purification rites unable to be performed. This ngozi bothers the family members in the hopes that someone will commit suicide. A questionnaire was developed using open-ended interviews, previous research questionnaires and a pilot study to support reliability and validity of the tool in this population. Traditional Shona beliefs were held strongly by all groups of nurses, with western beliefs being strongest amongst more experienced nurses. Nurses with experience scored highest on both the traditional Shona and Western belief subscale, indicating an integration of both beliefs. It was found that the patterns of influence were complex, especially in the area of beliefs and their impact on attitudes. Strongly held traditional beliefs correlated with hostile intentions and a feeling of powerlessness for first year nurses and with negative attitudes for third year nurses.

Using a qualitative approach, Pallikkathayil and Morgan (1988) asked 20 American ED nurses about their thoughts and feelings towards suicide attempters and reported a relationship between nurses' religious and personal values and their attitudes toward individuals who had attempted suicide. A semi-structured interview guide was developed through pilot interviews. The qualitative approach and how rigour was maintained was not discussed. Intrarater reliability for coding was initially established at 100% for two raters, and later at 90% using a third rater. Nurses' opinions about suicide attempters focused on values, attempters, the suicidal act, and treatment. Examples of opinions that

related to the religious values of the subject were: "Suicide is wrong from a religious standpoint" and "God gives life" (p. 246). When asked if they felt the attempter was committing a sin, two said yes, 7 said no, and 11 had no opinion. Conflicting answers given during the interviews led the authors to conclude that attitudes toward suicide are complex and require further study.

In a descriptive study of 299 critical care (ED and ICU) nurses and 81 physicians, an Australian nurse researcher (Bailey, 1994) found no significant differences between attitudes of believers and non-believers of a religious doctrine. Attitudes toward parasuicide behaviour were generally negative and complicated. Nurses were significantly more likely than doctors to think that nurses' attitudes toward parasuicidal patients were poor. Nurses were also significantly more likely to self-report that they did not understand parasuicidal patients and that they were afraid of saying the wrong thing to these patients. Though attitudes tended to be negative, 30% of respondents reporting strong religious beliefs were more positive than non-believers about chaplains and ministers of religion being helpful in dealing with these patients.

Further research on the various components of sociocultural orientation needs to be carried out in order to better examine ED nurses' suicide knowledge and attitudes. Research measures need to be carefully evaluated for their use in various clinical settings.

Clinical Specialty as a Basic Conditioning Factor In Relation To Knowledge and Attitudes

Two research studies used the SOQ to examine suicide knowledge levels of different groups of health care professionals. Alston and Robinson (1992) studied a random sample of 184 nurses from five different clinical specialties (community, medical-

surgical, psychiatry, pediatrics and maternity) in North Carolina. Differences among clinical areas were not discussed, though they reported an overall inadequate knowledge level. The most consistent comment made by the respondents was they knew very little about suicide.

DeRose and Page (1985) studied the suicide knowledge of 126 professionals (psychologists, social workers, and psychiatric registered nurses) and 42 laypersons in Ontario. Psychologists and social workers were found to be more knowledgeable than nurses, though nurses were found to have a better knowledge base than laypersons. The actual knowledge level of the groups was not quantified. Further research must be done to describe ED nurses' suicide knowledge.

Ten research studies appraised various healthcare professionals, their clinical specialty or the unit that they worked on and its relationship to attitudes toward suicide. Viewed together, empirical evidence is conflicting and, once again, it is difficult to aggregate findings across studies as the researchers used different measures and approaches, and failed to report reliability and validity of the research measures.

Ghodse (1978) and Ramon et al. (1975) reported nurses to be more sympathetic and accepting than any other professional group, whereas Platt and Salter (1987) reported significantly more positive attitude to individuals who evidence parasuicide behaviour in psychiatrists than nurses and physicians.

In contrast, Ansel and McGee (19971), Bailey (1994), Ghodse et al. (1981) and Hawton et al. (1981) found no evidence that any individual group of health care professionals held more favourable attitudes toward suicide attempters than any other group. Though not significant, Hawton et al. found nurses responses to be more like

psychiatrists rather than physicians; they were sympathetic and possessed a greater willingness to help the parasuicidal patient. Ghodse et al. found the opposite to be true; medical staff had more favourable attitudes and responses. Nurses were found to have the least favourable attitude towards the group of patients who take overdoses in the context of alcoholism or drug dependence, though how the attitude was displayed was not discussed. A general tendency to be more negative toward suicide attempters was reported when the patient was perceived as being less intent on dying, especially with psychiatric resident physicians where extreme defensiveness was evident when questioned about patients who evidenced parasuicidal behaviour while under their care (Ansel & McGee, 1971).

In a study of 93 American psychiatric staff, Ansel and McGee (1971) found predominantly negative attitudes toward suicide attempters in clinical areas like the ED where primary care for the suicidal individual occurs. Soukas and Lonnqvist's (1989, 1992) study of 184 Finnish nurses and doctors, and 85 psychiatrists supported these findings; attitudes were most negative among ED staff, where attempters were first treated. It is not known how the negative attitudes affected the professional treatment of suicide attempters, how the negative attitude was displayed, or how it affected the prognosis of the parasuicidal patient. In contrast, Samuelsson, et al. (1997) examined four different Swedish psychiatric settings that cared for individuals that attempted suicide and found the nurses who were involved with first contact and the primary care of the suicidal patient (ED and short term care) were more empathetic and understanding, and showed a willingness to care for the parasuicidal patient, and perceived the psychiatric care the patient required as important. Eighty percent of personnel in these two settings

acknowledged that they often worked with suicide patients, as compared with 40% who worked in intermediate and long-term care settings.

Four studies found that attitudes amongst nurses toward individuals that evidence parasuicidal behaviour did not vary significantly in relation to the clinical specialty or unit (ED, ICU, medical-surgical, psychiatry, pediatrics, maternity, poison treatment center, and the community) (Alston & Robinson, 1992; Anderson, 1997; Bailey, 1994; Platt & Salter, 1987). Platt and Salter noted that their results were prone to Type II error related to preexisting cultural differences of staff in two treatment settings (ED and a poison treatment center).

Further research needs to be carried out to examine the relationship between the various healthcare professionals' attitudes, and how work milieu and/or clinical specialty may influence attitudes towards suicide. A longitudinal study would be particularly helpful if it could be initiated at the nursing student stage. The type, size, setting and location of the unit or hospital where ED nurses work have not been examined.

Resource Availability as a Basic Conditioning Factor In Relation To Knowledge and Attitudes

The effect of available resources and their relationship to suicide knowledge has not been investigated. Five studies have looked at various components of resource availability and its relationship with attitudes toward suicide (Anderson, 1997; Long & Reid, 1996; O'Brien & Stoll, 1977; Soukas & Lonnqvist, 1989, 1992; Pallikkathayil & Morgan, 1988). Inadequate time and staffing were identified as factors related to negative attitudes of 20 American nurses (Pallikkathayil & Morgan, 1988) and 184 Finnish ED/ICU nurses, physicians and 85 psychiatrists (Soukas & Lonnqvist, 1989, 1992).

Physicians and nurses reported that available psychiatric consultations and opportunities to cooperate and consult with psychiatric personnel or experts could have a positive effect on staff, and thus, indirectly influence the quality of care and patient outcomes (Anderson, 1997; Long & Reid, 1996; Pallikkathayil & Morgan, 1988; Soukas & Lonnqvist, 1989, 1992).

Nurses suggested that a clinical specialist (either a nurse with psychiatric training or a social worker) be available for each unit or patient (Anderson, 1997; O'Brien & Stoll, 1977; Pallikkathayil & Morgan, 1988). In contrast, Soukas and Lonnqvist (1989, 1992) reported that ED nurses felt this was less necessary than ICU nursing staff. Results are inconclusive and difficult to aggregate as differing resources were examined using different research approaches, and measures. Only one study reported reliability and validity of the research measure (Anderson, 1997).

Given recent downsizing, restructuring and merging of hospitals, budget cuts, increasing numbers of lesser skilled care providers, elimination of nursing management and leadership positions, a shortage of beds, extended ED waits, and declining enrollment in nursing schools, it is apparent the availability of resources is in question (Broughton, 1998; Shamian, 1998; Vigar, 1997). Resources that may contribute to positive attitudes need to be identified for future support.

Nursing Education as a Basic Conditioning Factor In Relation To Knowledge and Attitudes

Only Elliot et al. (1992) investigated the knowledge level of Zimbabwe nurses at three different stages of their careers (first year nursing student, third year nursing student, and RNs with an average of 10 years nursing experience). Knowledge regarding

suicide was poor for all three groups. Not one of the samples answered 50% of the items correctly. Many nurses believed that “spirits of a previous suicide may make someone else attempt suicide; 48% of first year nurses, 37% of final year nurses and 60% of experienced nurses endorsed this statement” (p. 277). Clearly further study of nurse’s educational training and its relationship to knowledge of suicide/parasuicide is warranted.

Elliot et al. (1992) looked at nurse’s education in relation to attitude toward suicide. Again, there was no change across the three samples of nurses. These findings suggest that neither training nor experience had much influence. Given that attitudes were negative and knowledge low, additional education and training on issues surrounding suicide may be beneficial.

Alston and Robinson (1992) looked at the highest degree reported by 184 nurses from North Carolina. No significant attitudinal difference toward suicide was found in relation to nurses’ educational level and clinical area. However, particular items on the SOQ did correlate significantly with attitude. Nurses with baccalaureate or higher degrees were more likely to accept the ‘right to die’ concept than nurses holding an associate degree or diploma in nursing; this is viewed as a positive attitude, as they were accepting of patients’ rights to make such decisions.

An experimental post test, control group design was used by Pederson (1993) to examine the effect of an interactive teaching strategy known as “structured controversy” carried out with 51 American, senior BScN students. The intervention was designed to promote positive attitudes toward providing care for individuals who evidence parasuicidal behaviour. Students were randomly assigned to the treatment or control condition; both groups received a series of lectures. A one-way ANOVA indicated that

students who participated in the structured controversy were more positive, more willing to care for the parasuicidal patient, and demonstrated a better ability to deal with stress and frustration. There was a large relation between intention and attitude ($r = .66$), and stepwise regression indicated that attitude explained 62% of the variance in intention and therefore was a strong predictor of intention to become a primary nurse for a suicidal patient. As a teaching strategy, structured controversy needs to be studied further. However, it looks promising as an effective educational approach to promote nurses' attitudes toward caring for suicidal patients.

Need for additional education and training on issues of caring for patients who evidence parasuicidal behaviour has been identified in many research studies (Alston & Robinson, 1992; Bailey, 1994; Elliot et al., 1992; O'Brien & Stoll, 1977; Pallikkathayil & Morgan, 1988; Samuelsson et al., 1997; Sidley & Renton, 1996; Soukas & Lonnqvist, 1989, 1992). However the relationship between education/training and attitude has not been addressed. Given the demand for education, further studies on the relation between education and attitude needs to be done. Not only does the type of initial training received need to be investigated for its effectiveness, but also the impact of continuing education. Longitudinal studies would be of benefit to identify educational approaches that promote and maintain positive attitudes over time.

Professional Experiences as a Basic Conditioning Factor In Relation To Knowledge and Attitudes

The relationship between professional experience and suicide knowledge has not been studied with health care professionals. Six research studies have examined various aspects of a nurse's professional experience and attitudes toward parasuicide behaviour.

It is difficult to aggregate these findings as they used a variety of measurement approaches and instruments; reliability and validity were seldom reported.

Among 669 British ED nurses (Ghodse, 1978) those with less experience had more favourable attitudes and were more willing to care for the parasuicidal patient. However, as their experience with parasuicide increased so did unfavourable responses. It was also found that health care professionals, who had 'very unfavourable' attitudes toward patients evidencing parasuicide behaviour, displayed a hostile response and reluctance to provide the needed care and had cared for significantly more parasuicidal patients. The reverse was found of those with 'very favourable' attitudes; they reported caring for fewer patients.

In contrast, three studies found that as ED nurses had more experience with the parasuicidal patient, attitudes tended to be more empathetic and these nurses reported the clinical expertise to recognize the psychiatric and physical needs of the parasuicidal patient (Anderson, 1997; McLaughlin, 1994; Samuelsson et al., 1997). Anderson and McLaughlin both used the SOQ to measure attitudes, however each used different items making it difficult to aggregate findings. Further research and evaluation of attitudinal instruments are needed.

By using a self-assessed structured questionnaire with 45 Irish psychiatric nurses, Long & Reid (1996) found that 49% of nurses agreed that the impact of caring for the suicidal patient was greater than caring for any other patient. Cross tabulation by experience demonstrated that 83% of the respondents with less than one year's experience in an acute psychiatric ward also found the impact greater with the suicidal

patient. Despite the distress staff reported, 71% (n = 32) experienced satisfaction at being able to make better use of their psychiatric nursing skills.

Using a phenomenological approach and a convenience sample of 7 post-basic Australian nursing students, Costigan et al. (1987) described nurses' constructions of individuals who attempt suicide. A common thread of negativity evolved. Parasuicidal patients were stereotyped by nurses, leading to biases in determining patients' care, and reactions such as hostility or anxiety in these nurses. It was found that prior contact or lack of contact with parasuicidal individuals did not elicit stronger negative constructions. Given the small sample size and the descriptive nature of the study, further research is needed.

Personal Experience as a Basic Conditioning Factor In Relation To Knowledge and Attitudes

The relationship between personal experience and suicide knowledge has not been examined, and only one study has looked at it in relation to attitudes. Bailey (1994), found an overall negative attitude amongst 299 ED and ICU nurses, and 81 doctors. They did not want to care for these patients, were impatient with them, conveyed a sense of frustration in caring for them, and found them manipulative. Forty-one percent of respondents claimed to have had some kind of personal experience of suicide. The author was surprised that personal experiences made no significant difference to respondents' attitudes; it was anticipated that personal experience would facilitate better understanding and/or tolerance.

The ED is where most suicide patients first encounter the Ontario health care system. Given the prevalence of suicide in Canada, it is likely that a significant number of nurses

have experienced some type of suicide or parasuicide event in their own personal lives, or by someone close to them. As Orem speaks to the willingness that nurses need to do what they do, knowledge of how ED nurses' personal experiences influence their knowledge and attitudes toward individuals who evidence parasuicidal behaviour would be helpful.

Review of the literature identifies several issues. To date, there are no published reports that provide an in-depth exploration of Ontario ED nurses' knowledge of and attitudes towards individuals who evidence parasuicide behaviour. Although multiple studies have been done with healthcare professionals, results are inconsistent. All but one was conducted outside Canada and most did not focus on ED nurses. Personal and environmental factors that may contribute to knowledge and attitudes have seldom been examined. Methodological limitations are evident within completed studies. All of these factors support the need for a research study to explore this pressing concern in a more comprehensive manner.

Research Questions

This study examined the following research questions:

- 1) What is the knowledge held by Ontario ED nurses regarding parasuicide behaviour?
- 2) What is the relationship, if any, between selected BCFs (age, gender, sociocultural orientation, clinical specialty, resource availability, nursing education, professional and personal experience) and knowledge of Ontario ED nurses about parasuicide?
- 3) What are the attitudes held by Ontario ED nurses towards caring for the patient who evidences parasuicide behaviour?

- 4) What is the relationship, if any, among selected BCFs (age, gender, sociocultural orientation, clinical specialty, resource availability, nursing education, professional and personal experience) and attitudes of Ontario ED nurses towards parasuicide?
- 5) What are the relative contributions of selected BCFs (age, gender, sociocultural orientation, clinical specialty, resource availability, nursing education, professional and personal experience) to Ontario ED nurses knowledge of and attitudes towards parasuicide?
- 6) What is the relationship, if any, between parasuicide knowledge and parasuicide attitudes in Ontario ED nurses?
- 7) What is the impact of Ontario ED nurses' personal experiences on knowledge of and attitudes toward parasuicide?

CHAPTER THREE

Methodology

A descriptive, correlational design was used. Characteristics of Ontario ED nurses' knowledge of and attitudes toward parasuicide are not known; therefore, the descriptive design is the design of choice (Brink & Wood, 1989). Essential to the descriptive design is 1) a large representative sample of the target population using a probability sampling technique, and 2) reliable and valid measurement tools (Brink & Wood, 1998, Polit & Hungler, 1991).

Procedures for Subject Selection

ED nurses were recruited through the College of Nurses of Ontario (CNO) database. In 1999 3,742 RNs indicated that their primary area of responsibility was emergency care though only 3,099 (83%) nurses agreed to have their names released for research purposes (M. L. Pineda, CNO, personal communication, January 27, 2000). A random sample of 400 ED nurses was requested stratified by gender. Contact information for 156 (39%) males and 244 (61%) females was received. In Ontario 94% of the ED nurses are female, and 5% male; the sample was stratified to examine gender differences in relation to knowledge and attitudes of ED nurses. As questionnaires were returned, each one was opened and checked for usability. Two of the surveys were not included in the data set as they as they were more than 50% incomplete. One hundred and thirteen surveys were used for this study, providing a 28% response rate. Eight participants refused to participate in the study and indicated, either verbally or in writing, they no longer worked in the ED.

Eight variables (age, gender, sociocultural orientation, clinical specialty, resource availability, nursing education, professional and personal experience) were examined; therefore a minimum of 10 subjects per variable was needed to ensure significant power and to reduce the risk of Type II errors, though a larger sample was obtained (Polit & Hungler, 1995).

To determine an adequate sample size for this research a power analysis was performed for the anticipated multiple regression analysis (with five independent variables) (Brink & Wood, 1989). The following factors were considered in doing the power calculation: (1) level of significance was set at $p < .05$; (2) power was set at .80; and (3) the expected effect size was medium (Cohen & Cohen, 1983). A minimum of 92 subjects was needed to detect a medium effect size; hence a sample size of 113 afforded sufficient power.

Ethical Considerations

Prior to its commencement, the study received ethical approval from the “Ethics Committee” of the School of Nursing, University of Windsor. Subjects indicated their consent by returning the completed survey booklets in the self-addressed, stamped envelopes provided. Anonymity of subjects was maintained as no identifying information was collected on the surveys that could link subjects to individual responses. Surveys were returned directly to the principal investigator (PI) at the School of Nursing, University of Windsor. Only the PI and her thesis committee had access to the data. Names and addresses received from the College of Nurses were kept in a locked file, along with the surveys when not being used for data entry. This master list was shredded

at the end of the data collection period. The survey data will be kept in a locked file for a period of five years and then shredded.

The survey posed minimal risk to respondents. Discussions on suicide and parasuicide are considered to be of a personal nature and in some individuals may create uncomfortable reactions, decreasing their desire to respond. Offering participants an anonymous survey increased the likelihood of honest answers and a returned survey. The survey did not place subjects at risk for liability or damage to financial standing, employment or reputation. There was no physical risk or experimental treatment. Inconvenience to participants included the time and energy spent reading the letter of introduction, filling out the questionnaire (approximately 30 to 35 minutes), and placing it in the mail. Participants were given the researcher's name and telephone number so they could contact her to discuss any concerns that arose. Two individuals contacted the PI. One inquired about the length of response, and asked if additional pages could be added. The second asked questions regarding the study and how the information would be reported.

Benefits of this research to subjects were primarily indirect. Subjects may have experienced the satisfaction of knowing they contributed to research that will add to the knowledge of ED nurses' knowledge and attitudes towards individuals who evidence parasuicidal behaviour.

Procedure

A modified Dillman's method for mailed surveys was used to maximize subjects' response (Crosby, Ventura, & Feldman, 1989; Dillman, 1978). In designing the survey booklet, questions that were highly related to ED nurses and parasuicide were placed

first. Questions that were likely to most objectionable were near the end, following the demographic information. To ensure an anonymous sample, two complete mailings were done approximately four weeks apart. Participants received an envelope containing a letter of purpose and instruction, a self-addressed, pre-paid return envelope, and the survey. A cover letter accompanied each mailing, with an explanation in the second, advising the participants to disregard the second mailing if they had already responded (Appendix A & B). Hence, respondents' anonymity was preserved. A different colour cover was used to establish which mailing participants responded to; 87 (77%) responded to the first mailing and 26 (23%) to the second.

Sample

The participants were 113 ED nurses whose primary area of employment in 1999 was emergency care, with 42 being male (37 %), 69 female (61 %), and 2 who did not indicate gender (2%). Age of participants ranged from 25 years to 59 years with a mean of 41.7 (SD = 8.95). The length of time since the participants graduated from their initial training ranged from 2 to 37 years, with a mean of 17.9 (SD = 9.7). The mean number of years actually worked in the ED was 11.5 (SD = 7.8), with a range of 1 to 32 years.

The primary initial RN program that 79 (71%) participants completed was at a college level. Twenty-four (21%) nurses went through a hospital training program, and 9 (8%) completed a university program (BScN). Of the participants, 46 (40%) went on to complete additional formal education in either nursing or another major at a college or university. Only one (1%) completed graduate level studies.

The majority of participants, 90 (80%), were presently married or living with someone. One hundred and four (92%) were white, five (4%) Asian, and two (2%) black.

One (1%) was categorized as “other” and one (1%) as mixed. Ninety-four (84%) of the ED nurses were born in Canada, four (4%) in the Philippines, three (3%) in the United Kingdom, and 11 (10%) were categorized as “other”. Fifty-one (46%) participants designated their ethnic or cultural identity as Canadian, 33 (30%) English, five (5%) French, four (4%) Dutch, three (3%) German, two Scottish (2%), and one (1%) of each were identified as Irish, Ukrainian, Jewish, East Indian, and Portuguese. Seven participants (6%) were categorized as “other”.

Thirty-seven (34%) designated their religion as Catholic, 26 (24%) Protestant, 15 (14%) Anglican, 10 (10%) Christian, 3 (3%) Baptist, one (1%) Jewish, and one as Pentecostal (1%), with 15 (14%) categorized as “other”.

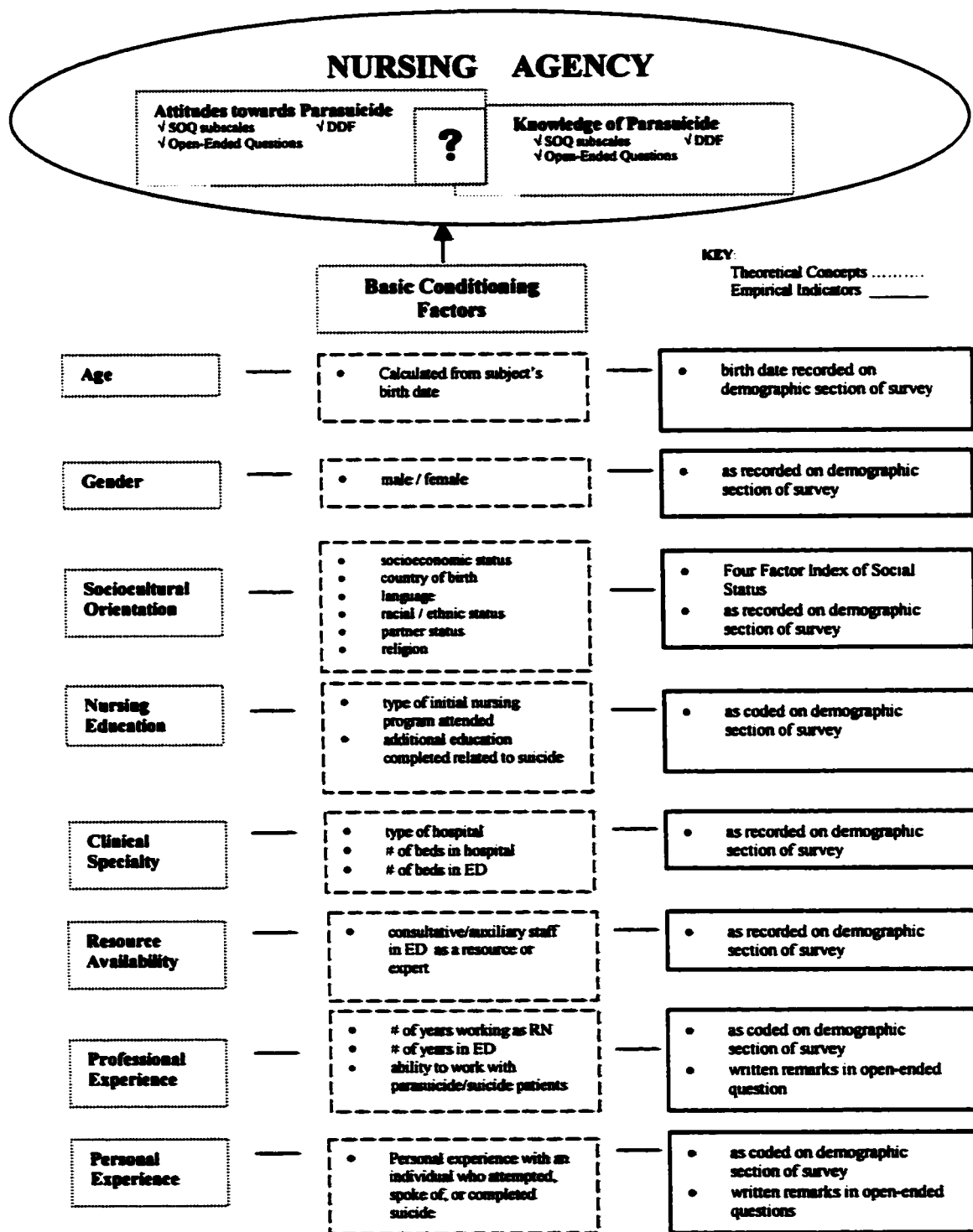
Eighty-four (79%) ED nurses worked in an urban setting, with 21 (20%) working in a rural area, and two (2%) in an outpost. Fifty (49%) identified the hospital where they were employed as a teaching facility. The number of beds in the hospitals ranged from two beds in an outpost area, to 999 in a teaching facility, with a mean of 305 ($SD = 194.7$). The actual number of ED beds ranged from 1 to 68, with a mean of 24 ($SD = 11.4$).

Measures

The theoretical concepts (Orem, 1995, 2001) and empirical indicators used for this research (with the exception of the one control variable “social desirability”) are depicted in Figure 2. Figure 2 illustrates the theoretical / empirical continuum for the concepts and relationships of interest when viewing ED nurses’ knowledge about, and attitudes towards, parasuicide.

Suicide Opinion Questionnaire (SOQ). To measure attitudes towards suicide and

Figure 2. Theoretical / Empirical Continuum of the Theoretical Concepts and Relationships of Interest from Orem's Nursing Agency (1995, 2001) when looking at ED Nurse's Knowledge about and Attitudes toward Parasuicide



parasuicide two versions of Domino, Moore, Westlake and Gibson's (1982) original 100-item questionnaire, the SOQ, were used; they were the Eight Clinical Subscales (Domino, MacGregor, & Hannah, 1988-1989) and the Five-Factor Interpretative Model (Rogers & DeShon, 1992, 1995). In the literature there is not a clear consensus as to which is the better measure, but the SOQ is the most-widely used instrument in suicide attitude research. In both, participants are asked to give their honest opinion to each item using a five-point response scale ranging from "strongly agree" to "strongly disagree" (e.g., "Most persons who attempt suicide are lonely and depressed").

Originally, the SOQ was comprised of 15 sub-scales. The 100 items were those that survived logical and statistical analyses from an initial pool of approximately 3000 items reflecting a comprehensive review of the literature. Experts, which included experienced crisis interventionists, psychologists who were working with suicidal patients, and graduate students in various disciplines, reviewed subsets of the 100 items. Those with the highest test-retest reliabilities (all above .68) were retained. Domino, MacGregor, and Hannah (1988-89) subsequently developed a set of eight clinical subscales based on item sorting by seven full time suicide prevention professionals (four clinical psychologists, two psychiatrists, and one social worker). They were instructed to sort the SOQ items into meaningful clusters and to name each cluster. A total of 23 were initially identified, then reduced to 14, then 11. At that time, an internal consistency analysis was carried out, and nine subscales were retained on the basis of their ability to discriminate the upper and lower 27 percent of a random sample of 200 college students. After another study with 86 adults an additional sub-scale was eliminated. Test-retest reliability of the remaining subscales ranged from a low of .75 to .86.

Domino (1996) later studied test-retest reliabilities for the SOQ's eight subscales in eight samples across seven countries (US college students, US adult volunteers, Mexican college students, German adult volunteers, Japanese factory workers, Chinese adult volunteers, Italian Navy personnel, and Taiwanese adult volunteers) that represented both Eastern and Western cultures. Test-retest reliability varied from .73 to .96 with a two week to 12 month time period between measures. The SOQ was not designed to measure a single construct, but several different beliefs that may be loosely related to one another. Therefore, a Cronbach's alpha of the total scale or a sum of total scores is inappropriate.

The eight clinical subscales were used in this study. They consisted of 64 of the original 100 items. Subscales included: 1) *Mental illness*, a 13 item subscale – assessing the respondent's belief that suicide and mental illness are related; 2) *Cry for help*, a 12-item subscale – suicide represents a cry for help rather than a wish to end one's life; 3) *Right to die*, an eight-item subscale – individuals do or do not have the right to terminate their own life; 4) *Religion*, a seven-item subscale – that suicide reflects a lack of religious values; 5) *Impulsivity*, a seven-item subscale – whether suicide is an impulsive or planned act; 6) *Normality*, a seven-item subscale – suicide is basically a normal action; 7) *Aggression*, a six-item subscale – suicide reflects aggression and anger towards others; and 8) *Moral evil*, a four-item subscale – suicide is a morally reprehensible action. Domino et al. (1988-89) used 17 of the 64 items to measure *knowledge*, creating a ninth subscale within the Eight Clinical Scale Model, which was used in this study.

Rogers & DeShon (1992, 1995) produced a five-factor version of the SOQ. Due to a lack of consensus across the previous studies done with regard to the underlying factor structure of the measure, they completed their own psychometric investigation of the

eight clinical subscales. They attempted to develop a psychometrically stable interpretive structure for the measure employing all 100 original items. Based upon an item-total correlation analysis, 52 of the original items were retained after being subjected to a factor analysis using VARIMAX rotation. The factor analysis resulted in a five-factor solution accounting for 72% of the variance. They later reported cross-validation for this five-factor model, noting that the internal consistencies for the factors ranged from .60 to .89, with only one (i.e. *Emotional perturbation*) falling below the .70 suggested cut-off. The items were scored the same as the 8 clinical subscales using a 5-point scale. Subscales consisted of 11 items each and were 1) *Acceptability*, suicide as a sanctioned behaviour; 2) *Social disintegration*, suicide related to poor interpersonal and societal relationships; 3) *Emotional perturbation*, suicide related to heightened negative emotionality; 4) *Perceived factual knowledge*; and 5) *Personal defect*, suicide related to intrapersonal weaknesses. In addition to the 52 SOQ items, three additional items were written to reflect the content of the *Emotional perturbation* subscale in an attempt to increase the reliability of the scale above the observed alpha of .60.

A test-retest investigation was administered four weeks apart with 27 subjects. Three of the factors, *Acceptability*, *Perceived factual knowledge*, and *Personal defect*, produced reliability estimates within the acceptable range for research instruments (.77 to .92). A limitation Rogers and DeShon (1995) acknowledged was that the relatively small sample size, though the results did contribute to the reliability data on this version of the SOQ. Internal consistency reliability estimates were repeated with a sample size of 452; alpha coefficients ranged from .56 to .85.

In investigating the available tools to measure knowledge about, and attitudes towards, parasuicide the SOQ was identified through personal communication with suicidology experts as the best available instrument to use. However, based on a review of the SOQ psychometric research, there has been no clear consensus on the sub-scales and their interpretation or which one is superior. Therefore, both versions, the Eight Clinical Scales and the Five-Factor Interpretative Model were used in this study along with open-ended questions to deal with these limitations.

For the current sample, the alpha coefficients for the Eight Clinical Scales ranged from .01 to .80; and for the Five-Factor Interpretative Model from .19 to .81, as shown in Table 1. Given the concerns regarding the two measurement approaches, they were examined, along with their subscales and the items in each subscale. This examination suggested that some individual items needed to be deleted as they detracted from the subscale, resulting in a low cronbach's alpha. Items were deleted if the Corrected Item – Total Correlation was $< .20$ or if it did not subjectively fit with the subscale (see Table 2).

Three of the Eight Clinical Scales subscales did not need to be altered. The *Right to die* subscale had an alpha coefficient of .80 and the *Religion* subscale's was .74, therefore they were left with the original items. The *Impulsivity* subscale's reliability was .01 and was determined to not be useful as a construct for this study after the individual items were examined. The other Eight Clinical Scales subscales (*Mental illness*, *Cry for help*, *Normality*, *Moral evil*, and the various items which measured *knowledge*) were rerun with problematic items deleted. Alpha coefficients of the revised subscales ranged from .58 - .72 (see Table 1).

Table 1

Means, SD's & Reliability Coefficients for Research Measures

	*Reliability				
<u>Research Measure / Subscale</u>	<u>n</u>	<u>M</u>	<u>SD</u>	<u>Original α</u>	<u>Re-run α</u>
<u>SOQ 8 Clinical Sub-Scales</u>					
<i>Mental illness</i>	113	3.03	.49	.59	.72
<i>Cry for help</i>	113	2.98	.53	.59	.66
<i>Right to die</i>	113	2.51	.64	.80	-
<i>Religion</i>	113	2.55	.59	.74	-
<i>Impulsivity</i>	113	3.00	.37	.01	-
<i>Normality</i>	113	2.60	.55	.45	.58
<i>Aggression</i>	113	2.63	.61	.58	.61
<i>Moral evil</i>	113	2.51	.85	.60	.66
<i>Knowledge</i>	113	2.47	.47	.47	.61
<u>Five-Factor Interpretative Model</u>					
<i>Acceptability</i>	113	2.37	.58	.81	-
<i>Social disintegration</i>	113	2.31	.51	.51	.72
<i>Emotional perturbation</i>	113	3.43	.46	.68	-
<i>Perceived factual knowledge</i>	113	2.53	.30	.19	-
<i>Personal defect</i>	113	2.34	.48	.48	.65

*Reliability = Cronbach's Alpha

Table 2

Subscale Measures and the SOQ Items

<u>Research Measure / Subscale</u>	<u>Subscale Items from SOQ (see Appendix D)</u>
<u>SOQ 8 Clinical Sub-Scales</u>	
<i>Mental illness</i>	1, 14, *23, 26, 28, 30, *43, *49, 56, 63, 71, 75, 79
<i>Cry for help</i>	11, *12, *25, 39, *41, *48, *54, 61, 64, 72, 77
<i>Right to die</i>	3, 10, 13, 18, 37, 53, 60, 76
<i>Religion</i>	5, 16, 32, 59, 62, 69, 74
<i>Impulsivity</i>	4, 8, 17, 21, 24, 35, 57
<i>Normality</i>	2, 36, *40, 44, 47, 51, 66
<i>Aggression</i>	5, 9, *15, 19, 34, 46
<i>Moral evil</i>	7, 42, 52, *68
<i>Knowledge</i>	*1, *10, 11, 14, 18, 20, *21, *25, *35, 39, *48, 53, *57, 61, 62, 74, *79
<u>Five-Factor Interpretative Model</u>	
<i>Acceptability</i>	10, 13, 18, 33, 36, 44, 51, 53, 60, 65, 73
<i>Social disintegration</i>	5, 27, *31, 32, *50, 55, 62, *67, 69, 70, 74
<i>Emotional perturbation</i>	1, 15, 24, 28, 46, 58, 79, 80, 81, 82
<i>Perceived factual knowledge</i>	4, 8, 21, 22, 25, 38, 41, 45, 57, 72
<i>Personal defect</i>	7, 14, 19, 26, 30, *35, *40, 47, 48, 61, *71, 78
(* = items deleted before rerunning reliability – see Table 1)	

In examining the Five-Factor Interpretive Model the subscale that measured *Perceived factual knowledge* had an alpha coefficient of .19, too low to be useful. The correlation of the individual items and total scores were also low, indicating that they had little to do with each other, therefore the subscale items were treated as discrete items.

Two of the other subscales, *Acceptability* and *Emotional perturbation*, had alpha coefficients of .81 and .68 initially, and no items were identified that would improve the reliability if they were deleted. For the subscales *Social disintegration* and *Personal defect*, items were deleted resulting in subsequent alpha coefficients of .72 and .65 (Table 1).

Open-Ended Questions Related to Parasuicide. Since the quantitative measures were expected to not capture the whole essence of the phenomena of interest, open-ended questions were used. The questions explored nurses' relevant professional and personal experiences with suicide and parasuicide.

- (1) You are a nurse working in an emergency department. How do you feel about providing care for parasuicide (failed suicide attempt) patients?
- (2) If you answered yes to knowing someone personally who a) completed, died due to suicide, b) attempted suicide, or c) spoke to you of killing himself or herself, please answer the following: What effect has this had on you? How has it affected your knowledge of parasuicide? What effect has it had on your attitude towards parasuicide individuals?

Measurement of Extraneous Variables (Appendix C). Seven demographic items were used from the Ontario Health Survey (Ministry of Health, Ontario, 1990) (age, gender, country of birth, ethnic/cultural identity, language spoken most often at home, partner

status, and work status). Socioeconomic status (SES) was measured using the Four Factor Index of Social Status (Hollingshead, 1978). The four factors of the index are education, occupation, sex and marital status. Scores may range from eight to 66, and the greater the score the higher the SES. This index provides interval level data. Reliability and validity of the index have been widely demonstrated in nursing and other research. In this study, SES scores showed little variance and ranged from a low of 58 to a high of 64. The mean was 60.97 ($SD = 1.02$).

The Marlowe-Crowne Social Desirability Scale (M-CS) (Crowne & Marlowe, 1960) measured subjects' social desirability response bias; respondents answered true or false (e.g. I am always careful about my manner of dress). Crowne and Marlowe (1964) reported a test-retest correlation of .88 at one month for the 33-item, true/false, self-report M-CS measure (N = 300 college students). Internal consistency coefficients ranged from .83 to .88 in a variety of samples (Paulhus, 1991). The mean score for this study was 1.53 ($SD = 0.16$), with a range of 1.06 to 1.91. Internal consistency in this study was .92 as measured using the Kuder Richardson 20 test for dichotomous measures/items.

In this study the Demographic Data Factors (DDF) was developed to describe the sample of ED nurses (Appendix C). Collected data included information concerning personal characteristics of respondents, the environment in which they worked, and past experience with suicide and parasuicide.

Data Analysis

All variables were subjected to univariate descriptive analysis, including measures of central tendency, variability, and symmetry. Distributions of the variables were examined for normalcy. A skew coefficient above 3.5 is considered markedly skewed (Tabachnik &

Fidell, 1989). The hypothesis of normality was tested using the Lilliefors statistic and suicide experience was the only markedly skewed variable in this research. Descriptive statistics were used to organize, summarize, and extract information from the DDF. Frequency tables were used to analyze the ordinal data on the demographics to determine the percentage of responses for each variable category. Data analysis procedures are presented as they are related to each research question.

Research Questions One and Three: The knowledge and attitudes held by Ontario nurses in regards to parasuicide were examined using descriptive statistics of all the scales including the measures of central tendency, variability, symmetry and Lilliefors for all 113 respondents.

Research Questions Two and Four: The relationships, if any, among the selected BCFs and the knowledge and attitudes of Ontario ED nurses in regards to parasuicide were determined through bivariate correlations, such as chi-square (χ^2), t-tests and Pearson Product Moment Correlations.

Research Question Five: A hierarchical multiple regression analysis (MRA) was used to examine the relative contributions of selected BCFs to Ontario ED nurses' knowledge of and attitudes toward parasuicide. Bivariate correlation coefficients among the BCFs (predictor variables) were calculated to assess potential multicollinearity problems; when 2 or more of the BCFs showed a bivariate correlation with one another, (exceeding .70), only the BCF that correlated highest with the outcome variable was included in the regression equation. Nurse's Age and the Years as RN (number of years since the graduating from an initial program) were correlated at .87. Nurse's Age also correlated

with Years in ED (number of years actually worked in ED) at .70; and Years in ED correlated at .72 with Years as RN.

Only BCFs and subscales with significant bivariate correlations ($p < .05$) were entered into the multiple regression equation (MRE). Since subjects' gender would not be influenced by other variables, it was entered first, then nurse's age. Next, M-CS scores were entered as a control variable. Finally, the other significant BCFs (sociocultural orientation, clinical specialty, resource availability, nursing education, professional, and personal experience) were entered as the final block. Stepwise competition among the variables in each block resulted in the strongest individual predictors entering the equation first (Brink & Wood, 1989; Tabachnick & Fidell, 1996).

Research Question Six: Relationships between the knowledge and attitudes of Ontario ED nurses was determined using a Pearson r . A partial correlation coefficient was computed, controlling for response bias, thereby ensuring a more accurate reflection of the relationship between ED nurses' knowledge and attitudes (Tabachnick & Fidell, 1996).

Research Question Seven: To determine the impact of Ontario ED nurses' personal experiences on knowledge of and attitudes towards parasuicide, open-ended questions were asked regarding ED nurses' personal experiences with suicide and parasuicide.

CHAPTER FOUR

Results

The sample was a random sample of ED nurses ($n = 113$) obtained from the CNO's database. The assumption that the data came from a normal distribution was tested using the Lilliefors statistic. The hypothesis of normality was accepted ($p \leq .05$) for nine variable distributions including: age, social desirability, level of ability to care for suicidal patients and the *Mental illness*, *Cry for help*, *Right to die*, *Normality* and *Knowledge* subscales of the Eight Clinical Scales Model, and the *Acceptability* subscale of the Five-Factor Interpretative Model of the Suicide Opinion Questionnaire (SOQ).

The research measures produced data that were interval/ratio, ordinal and nominal/categorical. Subject's responses on the two measures derived from the SOQ (Eight Clinical Scales Model and Five-Factor Interpretative Model) were treated as continuous data; they were viewed as implying equal measures between increments. The main risk involved in elaborating the data in this way is an increased risk of a Type I Error; one is more likely to reject the null hypothesis when one uses a parametric test as compared to the non-parametric equivalent (Labovitz, 1970). Five of the demographic variables were interval level or higher. These variables included age of the nurse, socioeconomic level, number of years of ED or nursing experience, and the number of personal experiences. The other demographic variables were categorical. The remaining measures yielded nominal/categorical data: gender (male, female), country of birth (Canada, not born in Canada), and partner status (married or living with someone, not married or living with someone), religion (Catholic, Protestant or other), ethnic origin (Canadian, not Canadian), type of initial nursing education (hospital, college, or

university), teaching hospital (yes, no), resource availability (consult services, no consult services), and parasuicide education (yes, no). Results related to each research question will now be presented.

Research Question #1. What is the knowledge held by Ontario ED nurses regarding parasuicide behaviour?

The SOQ and open-ended questions were used to examine knowledge held by ED nurses, and found a poor level of knowledge about suicide and parasuicide. A total of 24 items measured knowledge in the two SOQ instruments, the *Knowledge* items included a subscale in the Eight Clinical Scales Model and the *Perceived factual knowledge* subscale in the Five-Factor Interpretive Model. In this study the *Perceived factual knowledge* subscale from the Five-Factor Interpretative Model did not demonstrate an adequate reliability coefficient ($\alpha = .19$), though the individual items were examined discretely. Though items in both instruments came from the original 100 items of Domino's (1982) original instrument, they used only three of the same items (SOQ 21, 25, and 57) to measure knowledge; a total of 24 items measured knowledge between both instruments and will be discussed after the *Knowledge* subscale.

Of the 24 items that measured knowledge, a total of nine items were used to create the subscale *Knowledge* in the Eight Clinical Scales Model, with scores ranging from 1.22 to 3.44, and a mean score of 2.47 ($SD = 0.47$). Scores suggested that ED nurses in this study had a low level of knowledge. Of the 24 items, eight were found to not measure knowledge; they were more attitudinal given their subjective or ambiguous nature. They were SOQ 10, 18, 20, 22, 39, 53, 61, and 62; therefore these items are not discussed here in relation to the measurement of knowledge.

The other 16 items used by either SOQ instrument are discussed here as discrete items. The items were verified from a variety of sources, such as 1) the Suicide Information and Education Centre (2002) in Alberta, Canada, 2) National Strategies for the Prevention of Suicide in Canada (Harrington, 1998), 3) personal communication with Dr. Michael Kral in the Psychology Department at the University of Windsor, 4) the Canadian Mental Health Association (2001), 5) the American Association of Suicidology (2001), 6) the American Foundation for Suicide Prevention (2001), 7) the Centers for Disease Control and Prevention (2001), 8) the National Institute of Mental Health (2001), and 9) the National Strategy for Suicide Prevention (Center for Mental Health Services, 2001). With SOQ 1, respondents were asked if ‘most persons who attempt suicide are lonely and depressed’ and 68% ($n = 77$) agreed or strongly agreed with this, indicating ED nurses are aware that these individuals are at a high risk for suicide.

SOQ 4 stated “most suicides are triggered by arguments with a spouse” and was rated as strongly disagree by 19 (17%) and disagree by 61 (54%) participants. This item is generally false with most individuals but may be true with younger people at times.

“Most suicide attempts are impulsive in nature” (SOQ 8) is a false statement. Though 64% ($n = 57$) of respondents answered this correctly, 35% were undecided.

“Those who threaten to commit suicide rarely do so” (SOQ 11) is generally false; most individuals who speak of killing themselves actually do try. A little more than half of ED nurses (53%, $n = 59$) were aware of this.

Only 24% ($n = 27$) agreed that “people who commit suicide are usually mentally ill” (SOQ 14). This is true as most individuals are depressed, a recognized psychiatric diagnosis. The low level of knowledge about this item may be more related to ED nurses’

knowledge about depression, and attitudes about labeling depressed individuals as mentally ill, as well as the stigma attached to mental illness.

Both instruments used SOQ 21 and 25. SOQ 21 stated “suicide happens without warning;” 78% ($n = 88$) of ED nurses were aware this is false. Whereas only 16% ($n = 18$) of Ontario ED nurses were aware that SOQ 25 was true when asked if “it’s rare for someone who is thinking about suicide to be dissuaded by a friendly ear.” One nurse who had a personal experience with someone who died from suicide did write that in retrospect there were signs: “The one that died did not ask me for help and gave no warning. But friends and I later found signs, like having been offered gifts.”

Another lack of knowledge that 90% ($n = 102$) of Ontario ED nurses evidenced was that they believed that “once a person is suicidal, he or she is suicidal forever” (SOQ 35), which is not true. Ninety-seven percent ($n = 110$) of ED nurses knew that “improvement following a suicidal crisis did not indicate that the risk was over” (SOQ 38), the other 3% ($n = 3$) were not sure.

“Once a person survives a suicide attempt, the probability of his/her trying again is minimal” (SOQ 41) is difficult to answer as true or false. The probability that a patient will attempt is affected by many variables, such as what treatment was received, the planned follow-up, the underlying diagnosis or situation, and how the patient was supported (personally and/or professionally). It is more likely to be found true if the patient received appropriate follow-up. Ninety-six percent ($n = 109$) of ED nurses disagreed with this statement, which was validated by many of the open-ended responses indicating a lack of services for these patients, or that experts need to be involved in the planning, implementation and evaluation of the care provided to suicidal patients. It is

difficult to interpret this item given its ambiguity without a scenario outlining the circumstances surrounding patient care.

Respondents found SOQ 45 to be ambiguous; it states “many victims of fatal automobile accidents are actually unconsciously motivated to commit suicide.” This is impossible to know given the inability to document the clear intent of the victim to cause a fatal crash. Also what is exactly meant by the term many in the item is not clear; each respondent could interpret it differently. Only 7% ($n = 8$) of respondents felt this was true.

“Suicide attempters who use public places (such as a bridge or tall building) are more interested in getting attention” (SOQ 48) is not thought to be true. Only 28% ($n = 32$) agreed that attempters were trying to get attention.

When asked if “usually, relatives of a suicide victim had no idea what was about to happen” (SOQ 57), 58% ($n = 66$) felt this was true, 13% ($n = 15$) did not know, and 28% ($n = 32$) disagreed with this statement. Most family members, when asked are aware that there was something wrong, even if they could not specifically identify that the patient was suicidal.

“The majority of suicide attempts result in death” (SOQ 72) is a false statement. It is estimated that for every completed suicide there are six to 10 times the amount of failed suicide attempts (Bland et al., 1994; Costigan et. al, 1987; Ekker, 1991; Kerkhof et al., 1994). Only 9% ($n = 10$) of ED nurses were aware that this was false; a majority (71%, $n = 90$) believed it to be true.

“People who attempt suicide are, as a group, less religious” (SOQ 74) has been found to be true. Yet the majority of ED nurses, 63% ($n = 71$) believe that individuals who

attempt suicide are religious, contrary to research findings. Another 24% ($n = 15$) were not sure, and 13% ($n = 15$) indicated they knew this to be true.

The last knowledge item, SOQ 79, asked if “individuals who are depressed are more likely to commit suicide.” This was correctly rated as true by 89% ($n = 96$) of ED nurses. This is interesting given that in SOQ 14 respondents did not see individuals who committed suicide as mentally ill.

Due to the limitation of the SOQ instruments in measuring knowledge, qualitative responses were used to help facilitate interpretation of the knowledge of Ontario ED nurses. When asked questions regarding parasuicide 29% ($n = 33$) indicated a lack of knowledge and/or skill in caring for patients who evidence parasuicide behaviour. ED nurses often identified the need for additional education and hands-on training in the assessment, interventions and skills needed to care for the parasuicide patient.

Of the ED nurses surveyed many expressed they did not feel competent to deal with this type of patient population; they felt too challenged professionally. Quotes included: “I feel I don’t know enough about the topic to get involved deeply enough with an individual who may be at risk. I have some knowledge but in my opinion, not enough.” “I am challenged professionally and frustrated with the lack of immediately available resources for mental health interventions.” “I feel I am not competent enough to satisfy the needs of the parasuicide patient. I am not trained to nurture the psychological, dynamics, social and other factors that work in these patients’ mindsets and motivations.” “Lack of facilities and trained professionals.” “I feel I am not adequately trained to deal with the intense emotions that accompany a suicide attempt.” “Working with these types of patients at times makes me feel uncomfortable because I am not always sure what to

say to them, or their family. I always experience some unreasonable anxiety towards these patients.”

Since working in ED, I have seen 40-50 suicide attempts. At times I feel somewhat inadequate in providing care. I can handle the physical aspects of their condition, but at times, I don't know what to say. I simply try to provide support and understanding of what they are feeling.

Overall the quantitative and qualitative responses indicate a lack of knowledge about suicide and parasuicide with Ontario ED nurses.

Research Question #2. What is the relationship, if any, between selected BCFs (age, gender, sociocultural orientation, clinical specialty, resource availability, nursing education, professional and personal experience) and knowledge of Ontario ED nurses about parasuicide?

An analysis of the ED nurses' knowledge demonstrated no relation to any of the following BCFs: age, gender, resource availability, nursing education, professional or personal experiences. A relationship was found between knowledge and nurses' language, racial identification and the number of beds in the ED they worked in. Examination of bivariate correlations (Table 3) will be discussed in relation to each BCF and knowledge. All correlations discussed were significant at $p \leq 0.05$.

Age and Gender. There were no significant findings related to age or gender and knowledge.

Sociocultural Orientation. The country in which an ED nurse was born, their ethnic/cultural identity, whether they were presently married or living with someone, their religion and socioeconomic status (SES) did not significantly impact their

Table 3

Bivariate Correlations (Pearson's R) among SOQ Knowledge and Attitude Subscales, and the BCFs

Variables	1	2	3	4	5	6	7
1. ¹ Knowledge							
2. ¹ Mental illness	.39**						
3. ¹ A cry for help	.78**	.21*					
4. ¹ Right to die	.30**	.07	.14				
5. ¹ Religion	.54**	.32**	.39**	-.32**			
6. ¹ Normality	.09	.20*	.04	.42**	-.14		
7. ¹ Aggression	.43**	.36**	.38**	.13	.44**	.09	
8. ¹ Moral evil	.32**	.17	.32**	-.34**	.58	-.14	.37**
9. ² Acceptability	.34**	.17	.15	.87**	-.19*	.65**	.10
10. ² Social Disintegration	.58**	.43**	.38**	-.11	.83**	-.02	.48**
11. ² Emotional Perturbation	.18	.72**	.14	.03	.20*	.17	.36**
12. ² Personal Defect	.69**	.56**	.49**	.13	.50**	.15	.51**
13. ^a Nurse's Gender	-.03	.01	-.18	-.80	-.00	.01	-.18
14. ^b Nurse's Partner Status	-.05	-.02	-.03	.08	-.08	-.03	-.01
15. ^c Hospital Type	.19	.05	.15	.00	.11	-.09	.08
16. ^d Teaching Hospital	-.11	.12	-.24*	-.04	-.04	.05	-.13
17. ^e Consult Services	-.18	-.09	-.10	.04	-.19*	.03	-.04
18. ^f Suicide Training	.11	-.13	.06	.02	.04	-.07	.02
19. ^g Completed Suicide	.02	.06	.05	-.19*	.18*	-.08	.06
20. ^h Attempted Suicide	.14	.11	.14	-.04	.22*	-.01	.28**
21. ⁱ Spoken Suicide	.10	-.13	.09	.08	-.01	-.11	.15
22. Nurse's Age	-.16	-.12	-.23*	-.11	.04	.11	-.12
23. Nurse's SES	-.12	.01	-.19*	.07	-.20*	.04	-.14
24. # Hospital Beds	.14	-.01	.14	.01	.06	-.10	-.02
25. # ED Beds	.23*	.12	.10	-.07	.20	-.15	-.01
26. Years as RN	-.16	-.05	-.22*	-.18	.07	.05	-.08
27. Years in ED	-.03	-.06	-.12	-.15	.10	.09	-.10
28. Suicide Experience	-.01	-.03	.03	.08	-.07	-.13	.07
29. Suicide Ability	-.01	.17	.06	.04	.00	.15	.01
30. M-CS	-.06	-.15	-.01	-.10	.10	-.24**	.03

*p < .05. **p < .01. ¹ = Eight Clinical Scales; ² = Five-Factor Interpretative Model^a male = 0; female = 1; ^b partner = 0; non-partner = 1 ^c rural/outpost = 0; urban/city = 1 ^d yes = 0; no = 1;

Table 3 (continued)

Bivariate Correlations (Pearson's R) among SOQ Knowledge and Attitude Subscales, and the BCFs

Variables	8	9	10	11	12	13	14
1. 'Knowledge							
2. 'Mental illness							
3. 'A cry for help							
4. 'Right to die							
5. 'Religion							
6. 'Normality							
7. 'Aggression							
8. 'Moral evil							
9. ² Acceptability	-.23*						
10. ² Social Disintegration	.40**	-.01					
11. ² Emotional Perturbation	.14	.11	.29**				
12. ² Personal Defect	.55**	.22*	.56**	.26**			
13. ^a Nurse's Gender	-.17	.02	-.02	-.14	-.06		
14. ^b Nurse's Partner Status	-.19*	.07	-.07	.05	-.10	-.06	
15. ^c Hospital Type	.02	-.02	.10	.05	.10	.13	-.11
16. ^d Teaching Hospital	-.07	-.01	-.04	-.01	-.03	.33**	-.08
17. ^e Consult Services	-.11	-.04	-.15	-.02	-.20*	-.13	.01
18. ^f Suicide Training	.11	-.03	-.02	-.05	.02	-.09	.10
19. ^g Completed Suicide	.09	-.18	.15	.05	.02	-.07	-.08
20. ^h Attempted Suicide	.03	-.04	.25**	.21*	.11	-.13	-.05
21. ⁱ Spoken Suicide	.06	-.01	.00	-.08	.15	-.10	-.15
22. Nurse's Age	-.15	-.03	-.01	-.07	-.27**	.31**	.03
23. Nurse's SES	-.12	.12	-.09	.02	-.08	-.02	-.05
24. # Hospital Beds	.06	.00	.04	-.02	.04	.05	.05
25. # ED Beds	.13	-.02	.15	.00	.15	.21*	-.13
26. Years as RN	-.14	-.08	-.00	-.00	-.25**	.49**	.07
27. Years in ED	.05	-.03	-.02	-.09	-.12	.24*	-.08
28. Suicide Experience	.04	-.00	-.04	-.10	-.00	.03	-.03
29. Suicide Ability	-.09	.01	.04	.19*	.00	-.03	-.04
30. M-CS	.15	-.17	-.02	-.08	-.09	-.10	-.14

*p < .05. **p < .01. ¹ = Eight Clinical Scales; ² = Five-Factor Interpretative Model^a male = 0; female = 1; ^b partner = 0; non-partner = 1 ^c rural/outpost = 0; urban/city = 1 ^d yes = 0; no = 1;

Table 3 (continued)

Bivariate Correlations (Pearson's R) among SOQ Knowledge and Attitude Subscales, and the BCFs

Variables	15	16	17	18	19	20	21	22
1. ¹ Knowledge								
2. ¹ Mental illness								
3. ¹ A cry for help								
4. ¹ Right to die								
5. ¹ Religion								
6. ¹ Normality								
7. ¹ Aggression								
8. ¹ Moral evil								
9. ² Acceptability								
10. ² Social Disintegration								
11. ² Emotional Perturbation								
12. ² Personal Defect								
13. ^a Nurse's Gender								
14. ^b Nurse's Partner Status								
15. ^c Hospital Type								
16. ^d Teaching Hospital	-.21*							
17. ^e Consult Services	-.22*	.08						
18. ^f Suicide Training	.14	-.16	-.15					
19. ^g Completed Suicide	.05	-.10	.05	.12				
20. ^h Attempted Suicide	.16	-.08	-.05	.10	.40**			
21. ⁱ Spoken Suicide	.22*	-.16	.13	.10	.22*	.27**		
22. Nurse's Age	-.08	.30**	.19	-.06	-.02	-.07	-.05	
23. Nurse's SES	-.10	-.09	-.04	-.08	.07	-.03	-.08	-.24*
24. # Hospital Beds	.57**	-.37**	-.35**	.09	.06	.00	.11	-.19
25. # ED Beds	.57**	-.17	-.40**	.19	.07	.12	.06	-.15
26. Years as RN	-.09	.34**	.10	-.05	-.00	-.08	-.13	.90**
27. Years in ED	-.00	.22*	.18	.05	.03	-.11	-.00	.71**
28. Suicide Experience	.13	-.04	-.16	.01	-.05	-.05	-.06	-.07
29. Suicide Ability	.00	-.07	-.06	-.18	-.13	.03	-.06	.08
30. M-CS	-.11	-.04	.04	.08	.16	.02	.20	-.03

* $p < .05$. ** $p < .01$. ¹ = Eight Clinical Scales; ² = Five-Factor Interpretative Model^a male = 0; female = 1; ^b partner = 0; non-partner = 1 ^c rural/outpost = 0; urban/city = 1 ^d yes = 0; no = 1;

Table 3 (continued)

Bivariate Correlations (Pearson's R) among SOQ Knowledge and Attitude Subscales, and the BCFs

Variables	23	24	25	26	27	28	29	30
1. ¹ Knowledge								
2. ¹ Mental illness								
3. ¹ A cry for help								
4. ¹ Right to die								
5. ¹ Religion								
6. ¹ Normality								
7. ¹ Aggression								
8. ¹ Moral evil								
9. ² Acceptability								
10. ² Social Disintegration								
11. ² Emotional Perturbation								
12. ² Personal Defect								
13. ^a Nurse's Gender								
14. ^b Nurse's Partner Status								
15. ^c Hospital Type								
16. ^d Teaching Hospital								
17. ^e Consult Services								
18. ^f Suicide Training								
19. ^g Completed Suicide								
20. ^h Attempted Suicide								
21. ⁱ Spoken Suicide								
22. Nurse's Age								
23. Nurse's SES								
24. # Hospital Beds	-.02							
25. # ED Beds	-.07	.64**						
26. Years as RN	-.22*	-.19	-.08					
27. Years in ED	-.25**	-.16	-.10	.74**				
28. Suicide Experience	.01	.23*	.21*	.04	-.06			
29. Suicide Ability	-.01	.06	.04	.13	.08	.34**		
30. M-CS	-.02	-.02	-.03	-.06	-.05	.09	.02	

*p < .05. **p < .01. ¹ = Eight Clinical Scales; ² = Five-Factor Interpretative Model^a male = 0; female = 1; ^b partner = 0; non-partner = 1 ^c rural/outpost = 0; urban/city = 1 ^d yes = 0; no = 1;

knowledge level. The *Knowledge* subscale found nurses whose primary language was English ($M = 2.44$, $SD = .46$) showed a lower level of knowledge than those who spoke another language ($M = 2.87$, $SD = .39$) ($t(111) = -2.41$, $p = .018$). Nurses whose racial identification was Caucasian, ($M = 2.18$, $SD = .94$, $n = 104$) were more aware than non-Caucasian nurses ($M = 2.78$, $SD = .97$, $n = 9$) that people considering suicide usually gave some kind of warning (SOQ 21) ($t(111) = -1.81$, $p = .073$).

Clinical Specialty. The size of the hospital, the type of hospital (urban versus rural/outpost), and whether it was a teaching facility, did not significantly impact knowledge. Although the size of the actual hospital did not correlate with knowledge, the number of ED beds was positively correlated with the *Knowledge* subscale ($r = .23$, $p = .05$). The larger the ED (number of beds) the higher the level of knowledge ED nurses reported.

Resource Availability. There were no significant findings related to having consultants in the ED and knowledge. In the qualitative responses 20 % ($n = 23$) identified that having additional resources, such as time, community support and referral services, spiritual care, and/or experts/consultants for the ED staff could be a valuable asset in the care of parasuicidal patients.

Nursing Education. No relation was found between knowledge and the actual number of years since graduating from an initial program, the type of initial program the nurse attended (hospital, college or university training), or if any type of suicide prevention training was done.

Professional Experience. No relationship was found between professional experience (number of years worked in the ED, exposure to suicide/parasuicide patients, and perceived expertise in dealing with suicide/parasuicide patients) and knowledge.

Personal Experience. No relationship was found between personal experiences (nurses who had known someone who had completed, attempted, or spoke of attempting suicide) and knowledge.

Research Question # 3. What are the attitudes held by Ontario ED nurses towards caring for the patient who evidences parasuicide behaviour?

Various subscales from the SOQ were used to measure attitudes. The subscale results failed to delineate clearly any specific attitudes of the surveyed ED nurses. Results suggested an ambivalence of subjects' attitudes toward parasuicide behaviour. Although a definitive picture of attitudes of surveyed nurses was not evident, when viewed together the quantitative and qualitative results suggest this is an emotionally charged topic for these nurses.

Eight Clinical Scales Model. From the Eight Clinical Scales Model there were seven subscales that measured attitudes in this study. The sub-scale that measured *Impulsivity* had a very low reliability ($\alpha = .01$) and was not used in subsequent analyses. From the Five-Factor Interpretative Model there were 4 subscales that were used to examine ED nurses attitudes. The interpretation of all of the subscales was difficult as the means were very close to the mid range; therefore a closer examination of items in the subscale was done to further assess attitudes.

In looking at the subscale, *Mental illness*, it found that the ED nurses surveyed were uncertain if they believed persons who are suicidal or parasuicidal are of sound mind or

tend to be mentally ill or unbalanced ($M = 3.03$, $SD = .49$). This finding continues to be evident when we examine some of the items in the subscale. Item 14 states “people who commit suicide are usually mentally ill”; the majority of ED nurses (68%, $n = 77$) disagreed or strongly disagreed with this statement, indicating they did not believe parasuicidal individuals to be crazy or unbalanced. Yet 89% ($n = 96$) of ED nurses believe “individuals who are depressed are more likely to commit suicide” (SOQ 70). These findings suggest that depression is not recognized as a mental illness in this group. SOQ 56 asked if “the most frequent message in suicide notes is of loneliness” found 66% ($n = 74$) to believe this to be true; indicating that those surveyed believe loneliness played more of a role in contributing to suicide than the state of their mental health.

We can get a further idea the ED nurses’ attitudes about mental illness and suicide by looking at the open-ended responses: “Made me realize before becoming an RN that people did kill themselves over issues that I think can be solved reasonably. That there is a fine line between sanity and insanity.” “We treat the acute injuries in order to ensure the best possible patient outcome (hopefully survival) in order to allow treatment later by a mental health specialist who can help the patient overcome the underlying disease that led to the suicide attempt.” “I feel that people try to kill themselves for many different reasons, pressure, mental illness, disease, etc.” Some ED nurses do agree that those who commit and/or attempt suicide may be mentally ill, unbalanced or “crazy”, though it is difficult to assess from the qualitative data in this study how prevalent this attitude actually is.

Is suicide or parasuicide a *Cry for help*? In the current study the mean of 2.98 ($SD = .53$) on this scale indicates that the majority of ED nurses were not sure if persons are just

trying to get attention, or if they are truly looking for help. Looking at SOQ 64, “people who bungle suicide attempts really did not intend to die in the first place,” 58% ($n = 66$) disagreed, supporting the belief that ED nurses feel parasuicidal patients do intend to die. Yet SOQ 21 directly asks if “most people who try to kill themselves don’t really want to die;” 72% ($n = 81$) agreed with this statement, contradicting the earlier item. SOQ 61, “those people who attempt suicide are usually trying to get sympathy from others” found 48% ($n = 55$) agreed, and 20% ($n = 21$) were undecided, leaving an overall impression of uncertainty as to motive.

In their written responses, six nurses wrote in their responses about what they believed the parasuicidal patient’s cry for help meant. Only one thought it was truly a cry for help: “A cry for help is always the underlying facet for whatever reason. If you can get to the bottom of why and correct it, or change the person’s perception of a problem, you may make a valuable difference.” “Most just want to sleep/escape from their reality.” “Feel some people attempt suicide to gain attention or admission to hospital.” “Crying wolf frustrates me!” “Frustrating because most failed attempts are regulars who do this for attention or whatever. It is a drain on resources and nothing is done to help the person.”

The *Right to die* subscale indicated that ED nurses were uncertain about the right of people taking their own lives ($M = 2.51$, $SD = .64$), and this was supported when the individual items were examined. Forty-six percent ($n = 52$) felt that “people do not have the right to take their own lives” (SOQ76) and 43% ($n = 49$) disagreed that “suicide is an acceptable means to end an incurable illness” (SOQ 13). When asked if “people with incurable diseases should be allowed to commit suicide in a dignified manner” (SOQ10)

49% ($n = 63$) said no. And a much larger majority (63%, $n = 71$) felt “suicide is not acceptable in the aged and infirm persons” (SOQ 18).

In the open-ended questions, although no one expressed that individuals did not have a right to die, one nurse wrote:

I’ve worked in ED for over 10 years. When I first began, these type of patients made me angry, to think that they would attempt to destroy a perfect, working, healthy body. As time has progressed I’ve become more empathetic towards them and I have learned to not let their decision to harm themselves affect my ability to care for them.

Are suicide and lack of religious belief related? The results in the *Religion* subscale ($M = 2.55$, $SD = .59$) indicated that the ED nurses were uncertain if religion did or did not play a role in someone’s decision to attempt suicide. In examining the items within the subscale, it appears that most believed that religion does not play a role in someone’s decision to attempt. In response to SOQ 69, “most people who commit suicide do not believe in God,” 83% ($n = 94$) disagreed, indicating a belief that persons who attempt suicide do believe in God. When asked if “the higher incidence of suicide is due to the lesser influence of religion” (SOQ 6), 71% ($n = 80$) disagreed.

One nurse spoke of how a family member’s religious beliefs may have been the reason a suicide attempt was not carried through:

She was diagnosed with terminal cancer and although her own moral convictions were very opposed to suicide as we were raised, it suddenly changed when she was faced with becoming incapacitated and would possibly lose her dignity. She more than once expressed thoughts of suicide and how to me. The only thing that prevented this I am sure was her religious beliefs.

The *Normality* subscale evaluated if ED nurses believed that suicide was a normal phenomenon; asking if anyone could potentially be suicidal? Results again indicated that respondents were uncertain ($M = 2.60$, $SD = .55$). When asked directly by SOQ 44 if “suicide is a normal behaviour,” 90% ($n = 102$) disagreed, yet 59% ($n = 67$) agreed that “almost everyone has at one time or another thought about suicide” (SOQ 2). A majority (80%, $n = 90$), agreed with SOQ 66, “potentially, every one of us can be a suicide victim”. Yet only 2% ($n = 3$) felt that “sometimes suicide is the only escape from life’s problems” (SOQ51).

Some respondents indicated in the short answer section that they had attempted suicide, or known colleagues who had, confirming ED nurses also evidence this behaviour. Responses to questions regarding ED nurses’ own experiences with someone they knew personally, suggested an increase in empathy and understanding as to why some of the persons did attempt. However, for some, their personal experiences decreased their ability or willingness to understand this complex action. One ED nurse wrote:

Still don’t have a good understanding as to how or why someone feels so much despair that they would take their own life. I’ve had very low points in life but could never understand how taking my own life would do anything to improve it.

The notion that suicide may be perceived as an aggressive act, done with anger, generally turned inward is what the *Aggression* subscale is purported to measure. A mean of 2.63 ($SD = .61$) again suggests mixed feelings on whether suicide reflects aggression or anger. The individual items also revealed ambivalence. Eighty-five percent ($n = 96$) did not feel “suicide is clear evidence that man has a basically aggressive and destructive

nature” (SOQ 19). Only 27% ($n = 30$) felt “suicide attempters are typically trying to get even with someone” (SOQ 34) and only 32% ($n = 36$) felt that “many suicide notes reveal substantial anger towards the world” (SOQ 6). An almost equal number agreed (32%, $n = 36$), disagreed (34%, $n = 38$), or did not know (34%, $n = 39$) “if a culture were allowed the open expression of feelings like anger and shame, the suicide rate would decrease substantially” (SOQ 46).

Some of the open-ended responses suggested that ED nurses tended to believe the aggression or anger is present, but is generally directed outwards towards others: “Frequently parasuicide attempts are to get the attention of someone, usually a significant other, either to punish them, or threaten them.” “Unfortunately, we frequently see people hold the threat of suicide over someone by saying if they leave they will kill themselves.” Other quotes outlined the violence they direct towards the ED nurses: “Very verbally abusive to the nurses. Drunk.” “The patient was rude, aggressive, threatening, throwing charcoal at the nursing station, and demanding to see her spouse.” “I care for these patients as much as any patient. Where I have trouble is with the other factors, like drunkenness! The manipulative and selfish behaviour that follows.”

The *Moral evil* subscale was attempting to determine if responding ED nurses felt suicide was a serious moral transgression ($M = 2.51$, $SD = .85$), their responses indicated mixed feelings, yet the individual items suggested they did not see it as a serious moral transgression. SOQ 52 asked directly if “suicide is a very serious moral transgression,” 44% ($n = 49$) disagreed, while only 30% ($n = 33$) agreed. Only 18% ($n = 20$) thought “in general, suicide is an evil act not to be condoned” (SOQ 42). And only 20% ($n = 22$)

indicated “I would be ashamed if a member of my family committed suicide” (SOQ 7), and 21% ($n = 24$) did not know how they would feel.

The effect a failed attempt of a sibling had on one nurse suggested parasuicide was not seen as a moral transgression: “I feel more compassion for the person who attempts suicide. It helped me to realize there are underlying causes. They are not bad people, they have problems.”

Five-Factor Interpretative Model. Next the subscales of the Five-Factor Interpretative Model will be discussed. It was not developed or evaluated for its clinical usefulness and/or application. Its development began as a psychometric investigation of the Eight Factor Clinical Model. Only individual items in the subscales that were not discussed with the Eight Clinical Scales will be discussed here.

Results for the *Acceptability* subscale ($M = 2.37$, $SD = .58$) showed that the ED nurses in the sample were ambivalent about whether suicide is acceptable. This scale shares items and reflects a similar meaning to Domino’s subscales of *Normality* (SOQ 36, 44, 51) and *Right to die* (SOQ 10, 13, 18, 53, 60). Sixty-five percent ($n = 73$) of ED nurses felt that “in times of war, for a captured soldier to commit suicide is an act of heroism” (SOQ 33). Only 23% ($n = 26$) agreed that “passive suicide, such as an overdose of sleeping pills, is more acceptable than violent suicide such as by gunshot” (SOQ 65), and 14% ($n = 17$) felt “some people are better off dead” (SOQ 73).

The *Social disintegration* subscale revealed that the ED nurses were unsure if suicide was related to poor interpersonal and societal relationships ($M = 2.31$, $SD = .51$). Five of the items from Domino’s *Religion* subscale (SOQ 5, 32, 62, 69, 74) are shared with this scale. Twenty-six (23%) ED nurses agreed that “social variables such as overcrowding

and increased noise can lead a person to be more suicide-prone" (SOQ 27), while 42% ($n = 47$) disagreed. Six percent ($n = 7$) agreed that "obese individuals are more likely to commit suicide than persons of normal weight" (SOQ 55) and 11% ($n = 12$) indicated that "children from larger families are less likely to commit suicide as adults than single or only children" (SOQ 70). One nurse wrote this in relation to losing a parent to suicide and having another close family member speak of attempting suicide: "Helped me understand some of the reasons people attempt suicide. Increased awareness of widespread incidence of emotional problems in our society".

Emotional perturbation implies that suicide occurs when things are thrown into confusion or disorder, or when one is mentally disturbed or agitated. ED nurses in this study were indecisive ($M = 3.43$, $SD = .46$). Sixty-five percent ($n = 73$) agreed that "some people commit suicide as an act of self-punishment" (SOQ 15) and 45% ($n = 51$) found that "long term self-destructive behaviours, such as alcoholism, may represent unconscious suicide attempts" (SOQ 58). Thirty percent ($n = 33$) believed that "a large percentage of suicide victims come from broken homes" (SOQ 28). "Most persons who attempt suicide are lonely and depressed" (SOQ 1) was agreed upon by 69% ($n = 78$) of nurses. And over 68% believed that people who "find little enjoyment in life" (SOQ 80), "have a very low self-esteem" (SOQ 81), and "generally have little hope for the future" (SOQ 82) are more likely to consider suicide.

The *Personal defect* subscale items are related to intrapersonal weakness, suggesting those with a heightened negative emotionality would be more likely to attempt suicide. All items in this subscale were discussed under other subscales, except SOQ 78; 89% ($n = 100$) of sample nurses disagreed when asked if "those who commit suicide are cowards

who cannot face life's challenges." ED nurses had mixed feelings on the role heightened negative emotionality had on someone's likelihood to attempt suicide ($M = 2.34$, $SD = .48$).

Research Question #4. What is the relationship, if any, between selected BCFs (age, gender, sociocultural orientation, clinical specialty, resource availability, nursing education, professional and personal experience) and attitudes of Ontario ED nurses towards parasuicide?

An analysis of ED nurses' attitudes demonstrated no relation with gender, but one was found with nurses' age, ethnicity, language, partnership status, racial identification, facility type, number of ED beds, consult services, actual number of years of experience, ability to care for suicide/parasuicide patients, and those who had a personal experience with someone who completed or attempted suicide. Examination of bivariate correlations (Table 3) will be discussed in relation to attitudes and the BCFs. All correlations discussed were significant at $p \leq 0.05$. Qualitative responses assisted in further assessing nurses' attitudes/beliefs.

Age. Two significant correlations were found among the attitude subscales and age. ED nurses age was negatively correlated with a *Cry for help* subscale ($r = -.23$, $p = .017$) and the Personal defect scale ($r = -.27$, $p = .005$). Older nurses reported being more aware that suicide threats are real and not just a cry for help or attention, and that they need to be taken seriously. Younger ED nurses were more likely to believe that those with a heightened negative emotionality would be more likely to attempt suicide.

In the open-ended questions one nurse stated: "I've found it much easier to care for them as I've matured ... they deserve the best care that I can give them. Every situation is different, everyone's need is individual. I treat it accordingly."

Gender. There were no significant findings related to gender and attitude.

Sociocultural Orientation. The *Cry for help* subscale was significantly correlated with Nurse's SES ($r = -.019$, $p = .042$) (Table 3). Threats of a parasuicide patient were taken more seriously as the nurses' SES increased.

Nurses whose ethnicity was Canadian differed significantly on the *Right to die* and *Moral evil* subscales. Canadian nurses ($M = 2.64$, $SD = .59$) were more likely to support a person's right to take his/her own life ($M = 2.40$, $SD = .67$) ($t(111) = 2.05$, $p = .011$). They ($M = 2.30$, $SD = .76$) also felt suicide was a serious moral transgression ($M = 6.68$, $SD = .89$) ($t(111) = -2.41$, $p = .02$).

Nurses whose primary language was English differed significantly on four subscales; *Mental illness*, *Religion*, *Emotional perturbation*, and *Personal defect*. English speaking nurses ($M = 3.00$, $SD = .47$) were less likely to consider persons who completed or attempted suicide as mentally ill ($M = 3.51$, $SD = .48$) ($t(111) = -2.77$, $p = .007$). They ($M = 2.52$, $SD = .56$) were less likely to see religion as being an influence in someone's decision to attempt suicide ($M = 3.02$, $SD = .91$) ($t(111) = -2.20$, $p = .03$). They ($M = 3.42$, $SD = .45$) also were less likely to see the person as being very confused or experiencing a disrupted life ($M = 3.71$, $SD = .58$) ($t(111) = -1.67$, $p = .10$). Lastly, English-speaking nurses ($M = 2.30$, $SD = .45$) were less likely to subscribe to the idea that a heightened negative emotionality or interpersonal weakness would lead someone to attempt suicide ($M = 2.87$, $SD = .62$) ($t(111) = -3.17$, $p = .002$).

Nurses who had a partner ($M = 2.58$, $SD = .87$) differed significantly on the *Moral evil* subscale ($M = 2.16$, $SD = .71$) ($t(110) = 2.08$, $p = .04$). Nurses who were married or living with someone believed suicide was a more serious moral transgression ($r = -.19$, $p = .04$).

Racial identification differed significantly on two of the subscales, *Right to die* and *Acceptability*. Caucasian nurses ($M = 2.55$, $SD = .64$) were more likely to believe that a person had a right to kill him or herself ($M = 1.96$, $SD = .42$) ($t(111) = 2.77$, $p = .007$). They ($M = 2.41$, $SD = .58$) also were more accepting of suicide as being normal ($M = 1.89$, $SD = .48$) ($t(111) = 2.65$, $p = .009$).

One qualitative response illustrated how a nurse's faith or religious views were affected by personally knowing suicidal persons:

The ones that did die made me feel helpless! The others (that didn't) confirmed my resolve to TRUST God fully. Accept his love when all else fails. Thank Him for the life, abundant life, I live in his power and strength, and tell others about what happened to me when I took Jesus at his word... And now I live free of guilt and shame.

Clinical Specialty. There were no significant findings related to attitude when looking at the type of hospital ED nurses worked in (urban versus rural/outpost) or the size of the hospital based on the number of inpatient beds. What did show a significant difference were nurses attitudes on the *A Cry for help* subscale. Nurses who worked in a non-teaching facility ($M = 2.85$, $SD = .55$) were more inclined to believe that suicide threats were real ($M = 3.11$, $SD = .49$) ($t(110) = 2.46$, $p = .016$).

The size of the ED (number of ED beds) was positively correlated with the *Religion* subscale ($r = .20$, $p = .04$). The larger the ED, the greater the likelihood the nurses attributed religious beliefs to a person's decision to attempt suicide.

Four nurses wrote about the affect a clinical specialty or area may have had on care: "It is difficult enough opening up to one person. We expect these people to open up to 3 or 4, nurse, doctor, mental health worker and in my zone, also an outpost nurse." "It is difficult to spend any time with these patients since we depend on a psych triage nurse in our department to handle these particular patients." "In a rural setting the patient is disadvantaged. The GPs try to give some consistency to the care. Sometimes the patient just needs someone to talk to that is not involved in their life." "I work in a rural setting with no proper facilities or trained personnel. I am often frustrated in attempts to have patients transferred to appropriate facilities with trained professionals."

Resource Availability. Nurses who had an expert or consultant as part of the ED staff ($M = 2.40$, $SD = .47$) differed on the *Personal Defect* subscale ($M = 2.20$, $SD = .49$) ($t(108) = 2.13$, $p = .04$), and were found to be correlated to the *Religion* subscale ($r = -.19$). Nurses who worked where an expert or consultant was available were more inclined to report that a heightened negative emotionality and religious beliefs did have an impact on a person's decision to attempt/consider suicide.

In the open-ended responses nurses revealed the following about resource availability: "Frustrating because most failed attempts are regulars who do this for attention. It is a drain on resources and nothing is done to help the person. The cycle seems to never end." "When time allows I am open-minded, objective and a good ear." "I feel inadequate most of the time. This patient usually requires physical medical treatment

which I can give and psychological treatment which I usually cannot give due to a lack of time.” “Frustrated due to time consuming nature, especially ODs: time on the phone to Poison Control, use of an ED monitored bed, lack of psych beds.” “Very frustrating. Some people really need help that is not available in the community.”

Nursing Education. The type of initial nursing training an ED nurse obtained, whether a suicide prevention program was completed, or the actual type of suicide prevention program, did not show any relation to attitudes. The actual number of years since graduating from an initial program was negatively correlated with the *Cry for help* subscale ($r = -.22$, $p = .019$) and the *Personal defect* subscale ($r = -.25$, $p = .008$). The more experienced nurse was more likely to view suicide threats seriously and less likely to believe a heightened negative emotionality or intrapersonal weakness played a role in a person’s decision to attempt suicide.

Professional Experience. No significant correlations were noted among the attitudes subscales and the number of years a nurse worked in the ED or the amount of exposure to suicide and parasuicide patients. However, how ED nurses rated their ability to deal with a suicide or parasuicide patient was positively correlated with the *Emotional perturbation* subscale ($r = .19$, $p = .039$). The higher ED nurses rated their ability to care for the suicidal/parasuicidal patient, the more they attributed the cause of suicide to an upheaval in the life of the parasuicide patient, one of confusion, disorder, or extreme agitation.

The qualitative responses revealed attitudes/beliefs related to the nurses’ professional practice. Negative statements ($n = 48$, 42%) were more prevalent than positive ones ($n = 34$, 30%), and some nurses expressed a combination of both ($n = 14$, 12%). Of the nurses

surveyed 33% (n = 37) revealed that the story, or context, surrounding the parasuicide greatly influenced their attitudes and subsequent care of the patient.

Positive responses frequently included comments expressing a feeling of being sympathetic, empathetic, or caring, such as: "I feel deeply sympathetic toward the patient because he or she must feel so helpless that they see no other way out but to end life." "Usually very sympathetic. Aware I do not know what the person may be dealing with." "For true parasuicide I have empathy and compassion – some of their circumstances are heart wrenching." "They are desperate. They need help. I want to help."

Some responses also reflected a positive impact on care: "All patients deserve the same level of care no matter what we feel about them and they all deserve to be treated with dignity and respect. We should be able to overcome our personal feelings." "These patients deserve the same care and attention as any other patient in the department."

Examples of negative and ambivalent responses from some of the nurses included: "I feel as if it is an unnecessary burden on our health care system. I often feel less compassion for these people if they are repeat attempt suicide patients." "It's difficult that we're trying to help someone who's tried to end their life, when others coming in to the department are dying from no fault of their own (i.e., MIs)." "I feel it absorbs an incredible amount of ED resources that could be used elsewhere." "To be honest most of these people are losers." "I don't enjoy caring for them. I feel a lot of patients have a helpless, hopeless life style and no future possibilities of improvement due to their social status in the community. I cannot help their problems." "Sad, cynical." "Sometimes I feel ambivalent about caring for people on their eighth or ninth attempt." "I really have no

strong feelings one way or another.” “I feel mostly apathetic; the young people get my sympathy and compassion.”

Nursing care was negatively affected: “Sometimes it’s hard to keep your personal feelings of anger, shame and disgust to yourself and not displace it on the parasuicide patient.” “Cautious. I realize that eventually these people will succeed if they truly want to die and I feel there is very little I can do to stop them.”

Nurses voiced that the situation, story, or context surrounding the parasuicide patient influenced their attitudes and care: “Depending on the patient and the story (if we get a story) it could be: sympathy, irritation, anger or dismay.” “Sadly enough how I feel depends upon the status of the patient, but the level of care doesn’t change.” “If it was a genuine suicide attempt I am very sympathetic and try to help. If it is a gesture... I feel very annoyed, have little patience, and have to force myself to give good care.” “Sadly it depends on the status of the patient, like sorrow for the young person who fails – so much to live for, etc.; sorrow for an elderly person who has to go on living in pain.”

It would depend on the person’s reason or situation. I feel sorry for those who really are hopeless and depressed or terminally ill. I feel anger towards those who take overdoses, or harm themselves physically otherwise in an attempt to draw attention to themselves or their circumstance; those who really didn’t intend to kill themselves but we must treat as a failed attempt.

Nurses reported that repeaters particularly challenged their ability to provide care: “I believe I treat these people the same as any other illness... except if they become ‘chronic’ parasuicide and clog a busy ED.” “Being nonjudgmental is the goal, but often difficult when the same people come back repeatedly. It’s rather sad and frustrating to

care for these people.” “I do have varying degrees, compassion to anger, this is because I have been exposed to so many chronic parasuicide people.”

Personal Experience. Though nurses’ attitudes did not show a relationship when they knew someone personally who spoke of killing oneself, they did show one when the person had completed or attempted suicide. Nurses who had a personal experience tended to exhibit more positive attitudes than negative ones, which was also supported by the qualitative responses that will be discussed fully under research question seven.

Nurses who had a personal experience with someone who completed suicide were correlated with the *Right to die* ($r = -.19, p = .042$) and the *Religion* ($r = 0.18, p = .05$) subscales. These nurses did not agree that someone had the right to die, and saw religion as playing a role in the decision to consider suicide.

When nurses knew someone personally that had attempted suicide, they differed on four of the attitude subscales. The *Religion* subscale was positively correlated ($r = 0.22, p = .017$) with ED nurses who had an experience; they ($M = 2.43, SD = .50$) saw religion as having less of a role in the individual’s decision to attempt suicide ($M = 2.70, SD = .66$) ($t(92.16) = -2.36, p = .02$). In relation to the *Aggression* subscale these ED nurses ($M = 2.48, SD = .62$) believed that suicide was not a reflection of anger or an aggressive act ($M = 2.83, SD = .54$) ($t(110) = -3.09, p = .003$) and they were positively correlated ($r = .28, p = .003$), suggesting ED nurses who had a personal experience with suicide were less likely to see suicide as an aggressive act. On the *Social disintegration* subscale, ED nurses ($M = 2.20, SD = .44$) were less likely to attribute suicide to poor interpersonal and societal relationships the individual may have had ($M = 2.46, SD = .54$) ($t(110) = -2.74, p = .007$); a positive correlation was found ($r = .25, p = .007$). Lastly on the *Emotional*

perturbation subscale they were positively correlated ($r = .21, p = .027$). Nurses ($M = 3.35, SD = .44$) were less likely to believe that when things were thrown into confusion, or one was mentally disturbed or agitated, it would lead to suicide ($M = 3.54, SD = .48$) ($t(110) = -2.24, p = .027$).

Research Question #5. What are the relative contributions of selected BCFs (age, gender, sociocultural orientation, clinical specialty, resource availability, nursing education, professional and personal experience) to Ontario ED nurses knowledge of and attitudes towards parasuicide?

Some of the BCFs were identified as predictor variables in four of the attitude subscales that accounted for 7% to 24% of the variance, though not all of the BCFs were significant individual predictors. Qualitative responses assisted in further assessing nurses' attitudes/beliefs.

The *Cry for help* subscale was entered into the stepwise regression analysis (Table 4)

Table 4

Summary of Regression Analysis for Variables Predicting Cry for help Subscale

Variables	b	β	t	ΔR^2
*Teaching Hospital	-.24	.12	-1.9	
Nurse's SES	-.16	.06	-2.5	
Years as RN	-.01	.01	-1.9	.17***
Note. $R^2 = .13$				

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$

*Teaching Hospital - yes = 1; no = 0

as the dependent variable (DV) and Nurses' SES, the number of years as a RN, and if a hospital was a teaching hospital were entered as the independent variables (IV). Since Years as RN and Nurse's Age were highly correlated at .87, the decision was made to use the number of years since graduating as an RN in the multiple regression. Today nurses are entering training at various ages many with various levels of prior post-secondary education. Orem (2001) predicts that the age/maturity of the nurse is of considerable importance. She states, "a nurse's maturity as a person determines how he or she will perceive himself or herself and the patient within a helping relationship" (Orem, 2001, p. 117). Hence, the experiences and development an individual nurse may have had over the years may have influenced the nurse's maturity more than her/his actual age. Years as RN, Nurse's SES, and Teaching Hospital status accounted for 13% of the variance in the *Cry for help* subscale. However, none of the BCFs were significant individual predictors.

The Religion subscale was entered into a stepwise regression analysis (Table 5) as the DV, and five BCFs (consult services, Nurse's SES, the number of ED beds, and if someone had a personal experience with someone who completed or attempted suicide) as the IVs; together they accounted for 19% of the variance in the subscale. The only significant individual predictor was SES. The lower the nurses' SES the more they believed religion plays a role in a person's decision to attempt suicide.

The *Emotional Perturbation* subscale was entered as the DV into a stepwise regression with two IVs, the nurses' personal experience with someone who attempted suicide and their self-rated ability level to care for suicidal/parasuicidal patients. Both of the BCFs were significant individual predictors accounting for 12% of the variance (Table 6).

Table 5

Summary of Regression Analysis for Variables Predicting Religion Subscale

Variables	<u>b</u>	β	<u>t</u>	ΔR^2
^a Consult Services	-.19	-.15	-1.3	
^b Personal Experience: Completed Suicide	.20	.16	1.4	
^c Personal Experience: Attempted Suicide	.27	.22	1.9	
Nurse's SES	-.14	-.21	-2.0*	
ED Beds	.01	.15	1.3	.24

Note. $R^2 = .19$

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$

^{abc}yes = 1; no = 0

Table 6

Summary of Regression Analysis for Variables Predicting Emotional Perturbation Subscale

Variables	<u>b</u>	β	<u>t</u>	ΔR^2
^a Personal Experience: Attempted Suicide	.23	.25	2.3*	
Suicide Ability	.06	.26	2.4*	.14***

Note. $R^2 = .12$

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$

^ayes = 1; no = 0

The *Personal Defect* subscale was correlated to the number of years an ED nurse was a RN ($r = -.25$, $p = .008$) and those EDs that have consultative services ($r = -.20$, $p = .036$). Nurses with more experience and consultative services in the ED believed

parasuicidal patients had intrapersonal weaknesses that contributed to the suicide. In a stepwise regression analysis, the two significantly correlated BCFs (IVs) accounted for only 4% of the variance in the *Personal Defect* subscale (DV) and neither were significant individual predictors (Table 7).

Table 7

Summary of Regression Analysis for Variables Predicting Personal Defect Subscale

Variables	<i>b</i>	β	<i>t</i>	ΔR^2
Years as RN	-.13	-.14	-1.2	
*Consult Services	-.01	-.22	-1.9	.07

Note. $R^2 = .04$

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$

*yes = 1; no = 0

Research Question #6. What is the relationship, if any, between parasuicide knowledge and parasuicide attitudes in Ontario ED nurses?

A partial correlation coefficient controlling for social desirability response was computed to determine if there was a significant relationship between ED nurses' knowledge and attitudes (Table 3). The conventional guideline for Pearson's *r* according to Cohen (1996) is .1 = small, .3 = medium, and .5 = large. Correlations much larger than .5 could be measuring the same construct, however this may not be the case. Further analyses would be required to support or refute this, which is beyond the scope of this thesis.

The only subscale used in this study that measured knowledge was from the SOQ Eight Clinical Model, the *Knowledge* subscale. In this study the *Perceived factual knowledge* subscale from the Five-Factor Interpretative Model did not demonstrate an adequate reliability coefficient, though the individual items were examined discretely, a correlation of this subscale could not be completed. Since the Eight Clinical Model was made up of various items found in each of the attitude subscales, it is not surprising that the partial correlations were moderate (*Mental illness*, $r = .39$; *Right to die*, $r = .30$; *Moral evil*, $r = .32$; *Acceptability*, $r = .34$), and strong (*Aggression*, $r = .43$; *Religion*, $r = .54$; *A cry for help*, $r = .78$; *Social Disintegration*, $r = .58$; *Personal Defect*, $r = .69$).

Research Question #7. What is the impact of Ontario ED nurses' personal experiences on knowledge of and attitudes toward parasuicide?

Qualitative data were collected through open-ended questions to help identify the influence of nurses' personal experience with someone who completed, attempted or spoke of suicide and its subsequent impact on knowledge and attitudes. Of the 113 respondents, 76% ($n = 87$) reported having had one or more personal experiences with someone related to suicide/parasuicide; 61% ($n = 69$) with a person who completed suicide, 55% ($n = 61$) with an attempted suicide, and 36% ($n = 39$) with someone who spoke of attempting suicide. A discussion of the qualitative responses follows, first related to knowledge, then attitudes.

Knowledge

Many nurses identified a positive impact upon their knowledge about suicide or parasuicide after a personal experience: "Slight increase in search for books, info about it." "Paid more attention when articles or programs on TV came on." "Since that incident

I have increased my understanding and acceptance of parasuicide.” “I read a lot. I have attended a ‘Survivors of Suicide’ workshop, one for family members. I read about children of suicidal parents to try to watch for and counsel my children for their future ability to deal with stress.” “Broadened my knowledge and experience since then.”

There were nurses who identified negative, ambivalent or mixed feelings: “Little.” “I don’t feel it affected my knowledge.” “No change.” “Each experience leaves me less confident in what I know. Each surprises me by the unpredictable nature of people.” “I have tried to gain more knowledge and be more understanding and patience; a hard thing with repeat offenders.” “Acquaintance’s attempt has not really affected my knowledge. This survey makes me feel the need to learn more.” “No effect, my knowledge is no different about attempted suicide.” “Since that incident I have increased my understanding and acceptance of parasuicide. I am interested in it as an illness and have read related info, but I have no desire to work in this field full time.”

It has not affected my knowledge; I have little interest in dealing with subject (sorry!). I really try to not deal with suicidal clients. I cannot relate to people with unhappy or negative thoughts and dealing with people who contemplate suicide is unpleasant to me. I cannot relate to them.

An ongoing need for additional education, skills and/or training was expressed by 26% (n = 23): “I need more knowledge and training to help me understand when people become so depressed because I am always so up. I cannot imagine taking my own life because of depression.” “Would like more. Very few workshops for ED nurses in this field.” “I would like to have more formal education in suicide prevention, causes, and crisis intervention.” “My knowledge has improved somewhat. I think better prep is

needed.” “Cries for help are there, we don’t know how to identify them, we need to learn.” “My knowledge has increased somewhat. I think better prep is needed.” “I don’t know enough.” “Formal training has been best learning tool.” “I have tried to actively increase my knowledge. Been asking for more material for new staff in orientation, especially about aboriginal populations and the feelings of aggression.” “Acquaintance attempt has not affected my knowledge. This survey makes me feel I need to learn more.”

Attitudes

Positive attitudes/feelings exceeded negative ones when personal experiences were related. Many expressed a feeling of being sympathetic, empathetic, or caring: “It has caused me to be more empathetic and understanding. To provide them time, kindness and a non-judgment attitude.” “Felt bad, wondered if I could have helped.” “Increased empathy for the family. Greater closeness with God.” “I have respect for these people. I feel that there is a sure sign of a person who definitely needs help and sometimes this is their only way of getting attention they deserve.” “I am much more open and willing now to help or listen to these individuals; trying not to pass judgment. I no longer stereotype them.”

Helped me to understand and put into perspective the ‘cries for help’ and my ability difference. Reality check – these people have friends & family who will be affected.

Helps me to maintain compassion when it is tempting to be angry, frustrated, and discouraged.

Some responses illustrated how a personal experience may have influenced the care given suicidal or parasuicidal individuals: “Take the threat seriously. Always listen to people. I would always react to a threat.” “I find it easier to give empathy / compassion to

victims (patients).” “To be nonjudgmental but to intervene whenever possible to get the individual all the help they need.” “Made me more curious to examine my own feelings and reaction.” “I try to be more aware of people and what is going on in their life and changes more. It could happen to anyone.” “Since then I’ve done a lot of reading on depression. The more I read the more my views have changed on the subject. My attitude has softened.” “When time allows I am open-minded, objective, and a good ear.” “Aware of the feelings of the families involved. Aware of the cry for help.” “Increased ability to relate to family of parasuicide people. Helps understand some of the reasons people attempt suicide. Increased awareness of widespread incidence of emotional problems in our society.”

Negative and ambivalent attitudes were also evident: “To be completely honest. It makes me sick; these parasuicide individuals do this month after month – year after year. Wasting millions of dollars in our health care system.” “I have mixed feelings. Especially for ‘frequent flyers’ of the parasuicide experience. Some people use parasuicide as a coping mechanism when they are not coping or getting the results they want, i.e., from professional help.” “Anger – no thoughts of others. Wanting to help, but unsure how to do this.” “Anger, confusion.” “Hasn’t changed my attitude. Still don’t have good understanding as to how or why someone feels so much despair that they would take their own life.” “A profound feeling of helplessness consumed. I felt that I had a responsibility to help my friend, ... her death was somewhat my failure.” “I have ambivalent feelings. I understand the pain. This is a one to one decision with God, and may appear to be the ‘best end’. I worry about my children and their ultimate reaction to their father’s death.” “Repeat offenders are frustrating.”

Created a lot of stress for my family and myself. I feel they are very selfish, self-centered people. It probably has hardened me but I hope I never put my family through this. It just reinforced my attitude. Suicide or a serious attempt is the ultimate selfish act.

Some nurses had mixed attitudes evident in these responses, some of which were related to the context of the situation: "It's given me a heightened sensitivity especially with female patients. However, the patients who are chronic polymorphic substance abusers are not really parasuicidal. I find it harder to be nonjudgmental when they are uncooperative, abusive, and violent." "In some situations I feel empathy because some individuals really can't see any alternatives for coping with their emotional pain. In some situations I have trouble in maintaining clinical objectivity, especially for attention getters or button pushers." "I was totally shocked, mad, sad and about every feeling there is to have. If I had to describe one feeling more than any other it was complete disbelief. No warning, no reasons, a complete waste."

CHAPTER FIVE

Discussion

Overview

This descriptive study explored Ontario ED nurses' knowledge of and attitudes towards parasuicide using Orem's (1995, 2001) conceptualization of *nursing agency*. Orem states that nurses are persons who have qualities, and the capability and willingness to be what they need to be in order to care for their patients. Nursing agency is seen as a power developed by maturing or mature persons through specialized education and training to master the knowledge and clinical skills needed to practice nursing. In order to understand the set of developed and developing capabilities that ED nurses exercise in the provision of caring for parasuicidal individuals, selected basic conditioning factors (BCFs): age, gender, sociocultural orientation, clinical specialty/type of hospital (health care system factors), resource availability and adequacy, educational preparation, professional experience, and personal experience (maturity, status as a person), were examined in relation to nurses' knowledge and attitudes. The BCFs were examined further to see if they acted individually or in combination in relation to nurses' knowledge of and attitudes towards patients who have evidenced parasuicidal behaviour.

This chapter will discuss the results of this study. First, the strengths and limitations of this research are examined. Second, a discussion of research findings in relation to previous research is provided guided by Orem's (1995, 2001) conceptualization of *nursing agency*. ED nurses' knowledge of and attitudes towards parasuicide will be outlined in a discussion of the impact of the BCFs. Third, implications of the research findings in relation to future nursing practice, advanced nursing practice, nursing

education and policy, and theory development will be examined. Finally implications for future research will be discussed.

Limitations and Strengths

This descriptive study was the first found of its kind in Canada. Strengths of this research included a theoretical framework to guide the study, use of a random sample and parametric statistics, and a quantitative and qualitative methodological approach.

Limitations were related to the research measures and sample biases and representativeness.

Theory. The construct *nursing agency* (Orem, 1995, 2001) provided a useful theoretical framework for viewing nurses' knowledge of and attitudes toward parasuicidal behaviour with the focus on the BCFs. Each research variable was conceptually and operationally defined and the definitions linked to the theoretical framework. Potential explanations were then derived from the framework and provided direction for examination of possible relationships among the variables (Brink & Wood, 1989). The Self-Care Deficit Theory of Nursing (Orem, 1995, 2001) is an established and well-tested theory. Although the study of *nursing agency* is limited, the theory identified important links among the variables studied. This provided a logical guide for the research process and enabled the results to be linked to nursing's body of knowledge. (Brink & Wood, 1989).

Having stratified the sample for gender, all males ($n = 156$) that work in Ontario EDs who agreed to have their names released for research purposes were approached to participate in this study; 37% ($n = 42$) responded. Hence, of the total population of male ED nurses ($n = 190$), 22% participated, enhancing theoretical representativeness.

Sample. The construct *nursing agency* (Orem, 1995, 2001) emphasizes the complex, specialized activities that nurses learn and develop in order to care for patients. These abilities vary among nurses and are influenced by basic conditioning factors (BCFs), such as gender. The sample was deliberately stratified by gender in order to better examine gender differences (males = 37%, $n = 42$). This increased statistical power but decreased generalizability to the population, as only 5% of Ontario ED nurses are male.

The total response rate, which was only 28%, may also have limited the representativeness of the sample. The representativeness of the sample could not be fully determined as the College of Nurses of Ontario (CNO) does not collect data on all the study variables from the population the sample was drawn from, such as ethnicity and income, though subjects' age was representative (Burns & Grove, 1999). The final sample had 18% ($n = 20$) of nurses who had completed a BScN, higher than the 10% ($n = 372$) found in Ontario EDs. Nurses with a higher level of education may have felt more committed to research participation, as research preparation is more strongly featured in baccalaureate programs. Of the 3,742 nurses who work in Ontario EDs, only 83% ($n = 3,099$) allowed the CNO to release their names for research purposes. This may also have limited representativeness.

Another limitation of this study was that the sample may have been biased given the sensitive nature of the subject matter. It may have been difficult for respondents to be open and honest in answering the survey. Though research has shown that people have been found to be more willing to disclose suicidal ideation on a self-report instrument than through an interview, respondents willing to engage in this study may have been self-selected as to their level of knowledge and comfortability in sharing their knowledge

and attitudes on the topics of suicide and parasuicide (Kaplan, Asnis, Sanderson, Keswani, De Lucuona, & Joseph, 1994).

An adequate sample size was obtained and determined by a power analysis to afford sufficient power for the statistical testing using the multiple regression statistic. A power analysis revealed that sufficient power was provided for by a more than adequate sample size, thereby reducing the risk of Type II errors (Burns & Groves, 2001; Polit & Hungler, 1995).

Social desirability could have affected results given the stigma around suicide (Suicide Information and Education Center, 1999). It is important to keep in mind that the difference between what nurses think (true attitude) and what nurses say (avowed attitude) could be influenced by social desirability, especially in relation to the degree to which they would help a parasuicidal person (Román, Sorribes, & Ezuerro, 2001). To strengthen the results, the Marlowe-Crowne Social Desirability Scale was used to measure and control for social desirability response bias of subjects in the statistical analyses.

A modified Dillman's method for mailed surveys with one mailed follow up was used to maximize response rate. An anonymous sample also assisted in maximizing response. The CNO uses a sophisticated approach in obtaining a random sample. The random sample increased the strength, generalizability and representativeness of this research (Brink & Wood, 1989; Burns & Grove, 1999).

Measurement. Though the Suicide Opinion Questionnaire (SOQ) is the most widely used measure to study attitudes and knowledge at this point in time, its validity and reliability were examined and found to be lacking related to both knowledge and attitude

subscales in this study. Changes had to be made to some of the subscales to improve internal consistency (see Table 1). Initially only two subscales produced an alpha of $\geq .80$. In rerunning the coefficients, using only the items whose item-total correlations were $> .20$, the resulting reliability coefficients ranged from .58 to .72, none produced the .80 reliability coefficient suggested for established instruments (Nunnally, 1978). Two of the subscales failed to produce a useful alpha coefficient (*Impulsivity* from the Eight Clinical Model and *Perceived factual knowledge* from the Five-Factor Interpretative Model) and were not used. Given the low alpha coefficient ($\alpha = .61$) for the remaining knowledge subscale, all knowledge items were also viewed discretely to ascertain any relationship between the BCFs and knowledge of ED nurses.

When established measures are modified and items deleted, one runs the risk of modifying what the scale is measuring, thereby altering its reliability and impacting its validity (Brink & Wood, 1989; Waltz, Strickland, & Lenz, 1991). Another limitation was the lack of interpretive schemes of the Five-Factor Interpretative Model in research, thereby inhibiting the interpretation of the subscales related to attitudes (J. R. Rogers, personal communication, September 8, 2000; Rogers & DeShon, 1992, 1995). Clearly, the data do not support use of the SOQ scale as is.

Research recently conducted reexamined issues of reliability and factor structure of the SOQ (Wallace, 2001). Wallace found that Rogers and DeShon's (1992) analysis of the SOQ were not replicated even when a similar sample was used, as well as a similar analysis. The full SOQ (100 items) was found to be heterogeneous, with many unrelated items assessing different aspects of suicide attitudes. Wallace suggested that lack of a theory to guide the study may have resulted in the diversity of items so that it was

difficult to find common themes that would underlie these heterogeneous items. The claim that the Eight Clinical Scales (Domino et al., 1989) had adequate internal reliability was found to be premature, and results only partially supported Rogers and DeShon's (1992) Five-Factor Interpretative Model. Wallace's results also support this study's findings that the SOQ scale should not be used until further research is conducted to reexamine issues of reliability and factor structure.

Use of both SOQ models, the Eight Clinical Scales Model (Domino et al., 1989) and the Five-Factor Interpretative Model (Rogers & DeShon, 1992, 1995), permitted replication and comparison of the research findings as suggested by Rogers and DeShon's (1992, 1995) study of the various SOQ formats. Though factor-analysis was beyond the scope of this study, it should be used in the future to further examine and develop the SOQ.

Often a variety of methods to collect data are required in order to fully examine the research question. If the theoretical framework is sound and measures reliable and valid, then significant differences or relationships should be found (Brink & Wood, 1989). Using a quantitative and qualitative approach to examine ED nurses' knowledge of and attitudes towards parasuicide strengthened the design. Participants' attitudes were evaluated through the use of self-report with subjects rating themselves on various statements, and open-ended questions. Some nurses wrote that the survey did not allow them to express their attitudes fully, as the context of the situation was not provided in the statements they rated. The use of the open-ended questions was included to facilitate interpretation and increase confidence in the findings of the results from the research

measures. They also provide an opportunity to elicit participants' views not captured by the pencil-paper tests.

Statistics. The use of robust parametric statistics strengthened the study. These included t-tests, Pearson product moment correlations, and hierarchical regression analysis. A two-tailed test of significance with an alpha of .05 was used for all statistical tests.

Discussion of Research Findings in Relation to Previous Research

The discussion will be guided by the conceptual structure of *nursing agency* (Orem, 1995, 2001) and the BCFs. It will include ED nurses' knowledge about, and attitudes toward, parasuicide. Overall, the study findings are supported by past research. Some findings however, are unique to this study.

Knowledge of Parasuicide

Four previous research studies found that the knowledge level regarding suicide and parasuicide was poor. (Alston & Robinson, 1992; DeRose & Page, 1985; Elliott, Pitts & McMaster, 1992; Lester & Castromayor, 1994). This also seems to be true in this study. The most consistent comment made by respondents was that they were "undecided", indicating they may have known very little about suicide. A possible alternative explanation for why nurses' responses may have been poor is that these items deal with a situation that goes against what ED nurses are socialized and educated to do, preserve life. ED nurses may feel this conflict and have little tolerance for patients' parasuicidal behaviours. The emotionality that surrounds suicide could have lead to the "undecided" response.

A majority of nurses in this study did not answer the expected correct response on all the knowledge items. For example, 67% ($n = 86$) of nurses indicated that people who commit suicide are not mentally ill, and yet 89% ($n = 96$) agreed that depressed individuals are more likely to commit suicide. According to the medical model depression is a recognized psychiatric/mental illness, yet not all depressed individuals fit the criteria for the diagnosis. Therefore what the expected answer was and what is correct may be more related to current knowledge, the context of the situation or limitations of the measurement tool and needs to be explored further.

In examining the qualitative responses, it became clear that the SOQ evidenced limitations related to reliability and validity. Respondents desired a further explanation of the situation or context of individual items. Some nurses indicated that though persons who attempt suicide may have a bout of depression, the nurses did not label these persons as mentally ill even though the nurses recognized depression is a psychiatric diagnosis in the medical model. Consistent with finding a low level of knowledge, the qualitative responses revealed the need for additional training and education related to basic knowledge, assessment, and skills in caring for the suicidal and parasuicidal patient.

Age and Gender. Only one previous study examined nurses' age and gender in relation to knowledge of suicide/parasuicide; they did not report a correlation to knowledge scores (Lester & Castromayer, 1994). The present research supports this finding; age and gender were not related to knowledge.

Sociocultural Orientation. One study compared student nurses from two different countries, the United States and the Philippines, while evaluating their knowledge level (Lester & Castromayer, 1994). American student nurses were found to be more accurate

in their knowledge, though they were incorrect on roughly 25% of items. In the current study, nurses whose primary language was English (94%, $n = 106$) were found to have a lower level of knowledge. This finding is noteworthy as only seven participants were in the non-English group. The results were very prone to Type II error. Further research on the relationship between ethnicity and knowledge is warranted. This study did not find any relationship between socioeconomic status (SES) and knowledge scores. However the sample was very homogenous with respect to SES (they were all nurses) hence results were prone to Type II error. Future research might consider measurement and examination of the SES of individual nurses' families of origin (their parents, representing the family they grew up). More heterogeneity may be evident and one might argue that the SES of the family of origin might be a more salient predictor of nurses' knowledge and attitudes.

Clinical Specialty. Results from one study found the clinical specialty that nurses worked in, such as community health, medical-surgical, psychiatry, pediatrics, or maternity, did not demonstrate any relationship to their knowledge level about suicide; all were found to be poor (Alston & Robinson, 1992). When knowledge of various healthcare professionals were compared, nurses' knowledge level was found to be the lowest, though they were more knowledgeable than laypersons (DeRose & Page, 1985). In the present study, no relationship was found between the nurses' background or past clinical area of experience and knowledge scores. However nurses who worked in larger EDs (number of beds) reported higher knowledge levels. Larger hospitals generally accommodate a greater number of patients, thereby requiring a larger ED. With a larger patient population ED nurses may encounter parasuicidal patients more frequently, which

may enhance nurses' knowledge level. Additional services and resources, such as continuing education, may be more prevalent in larger EDs thereby enhancing knowledge level.

Resource Availability. The relationship of knowledge and available resources has not been investigated in the past. In the qualitative responses 20% of the ED nurses expressed that it would be more helpful to have resources, such as consultants available, more time to spend with the patient, and an increase in community resources and follow-up services.

Nursing Education. Whether nurses were in the first or third year of training, or were experienced, their knowledge level was found to be poor (Elliot et al., 1992). In the present study knowledge was poor regardless of what type of basic training, additional formal education, or suicide training was completed. However, in examining the different types of education the ED nurse may have participated in or graduated from, there was little variance. Some educational subgroups were very small (e.g. less than seven participants), which predisposed these results to Type II error.

Professional and Personal Experience. Previous research has not examined the effect of professional and personal experience on knowledge of suicide and parasuicide. In the present research the qualitative data provided vivid accounts of the impact nurses' experiences had on their knowledge. Personal experiences were reported to influence knowledge more positively than negatively. Many nurses expressed that they were compelled after a personal experience to seek out information on suicide and parasuicide. Some of the motives expressed were to assist in dealing with the actual experience or with the care of future patients, family members or friends. Of the 87 nurses who reported a personal experience with a suicidal patient, 26% ($n = 23$) expressed an

ongoing need for additional education, skills and/or training. In the responses related to professional experiences 14% ($n = 16$) of the 113 participants expressed a need to improve their knowledge and skills.

Attitudes toward Parasuicide

Of the six previous studies that examined ED nurses' attitudes towards suicide, three reported negative attitudes (Bailey, 1994; Pallikkalayil & Morgan, 1988; Soukas & Lonnqvist, 1989, 1992) and three reported positive attitudes (Anderson, 1997; Ghodse, 1978; McLaughlin, 1994). Negative attitudes were identified differently throughout the studies, some identified it as a personal reaction by the nurse such as anger or frustration, and others identified it by how they cared for the parasuicidal patient, such as indifference or by ignoring the patient. Positive attitudes were also described differently in each study. Some expressed the approach of the nurse, such as being more empathetic or sympathetic in their responses; others by the care they provided the patient, such as kind and individualized approach. The present research found ED nurses' attitudes toward suicide and parasuicide to be inconclusive and ambivalent, with no clear determination of the overall view. The qualitative data showed that nurses expressed more negative attitudes towards patients they cared for. Yet they had more positive views when dealing with someone they knew personally. Nurses reporting personal experiences also expressed a more positive attitude toward caring for suicidal or parasuicidal patients in the future. Many items on the attitudinal subscales also contained items used to identify knowledge about parasuicide. Hence, inadequate knowledge may have influenced responses.

Parasuicide was found to be an emotionally charged topic for many respondents, and this has been supported in past research. One finding, not unique to this study, was how nurses' attitudes may be affected by the context of the situation of the parasuicidal patient (Ansel & McGee, 1971; Bailey, 1994; Ghodse, 1978; Ghodse et al., 1986; Hawton, Marsack, & Fagg, 1981; Pallikkathayil & Morgan, 1988; Platt & Salter, 1987; Ramon, Bancroft, & Skrimshire, 1975; Sidley & Renton, 1996). The qualitative responses suggested that much of the ambiguity was reflective of nurses' perception of the context of the parasuicidal patient's situation. Nurses wrote that their attitudes varied depending on the story the patient provided, which influenced their judgment and provision of care. For example, "repeaters" were frequently taken less seriously, viewed as attention seekers and a waste of time. A more positive attitude was seen with patients who attempted suicide in response to a terminal or debilitating illness, or a tragic life event. Nurses reportedly cared for these patients in a kind, gentle, compassionate way, with emotional support provided to relieve patients' pain and turmoil.

Nurse's Age. Three studies of nurses found no difference in attitudes when different age groups were examined (Anderson, 1997; Ghodse, 1978; Ghodse et al, 1986). However, Ghodse found that younger nurses had a higher percentage of favourable responses to most patients, though it was not a significant difference. In contrast three other studies found that the older the nurse the more positive the attitude (Alston & Robinson, 1992; McLaughlin, 1994; Samuelsson et al., 1997). In this study, older nurses were more likely to view suicide threats as real, which many view as a more positive attitude given the likelihood the patient will be taken seriously and provided with the care they need.

Nurse's Gender. Samuelsson et al. (1997) found women to be more sympathetic than men in a study of psychiatric nursing personnel. Four other studies found no significant differences between male and female nurses (Bailey, 1994; DeRose & Page, 1985; Ghodse, 1978; Platt & Salter, 1987). The present research supports the latter finding, there was no difference found.

Sociocultural Orientation. Four studies, two with ED nurses, found a relationship between religion and nurses' attitudes toward parasuicide (Bailey, 1994; DeRose & Page, 1985; Elliot et al., 1992; Pallikkathayil & Morgan, 1988). Elliott et al. found that first and third year nursing students who held stronger traditional cultural beliefs were seen to have more hostile or negative attitudes towards suicidal and parasuicidal patients. What religious group the nurse belonged to helped identify the nurses' beliefs of the parasuicidal patient's right to commit suicide and to receive health care in DeRose & Page's study. Bailey reported that nurses with strong religious beliefs were more positive about the role of chaplains and ministers in the care of the parasuicidal patient. However, there was no difference between the attitudes of nurses who were believers and nurses who were non-believers.

Overall, religion was not seen to play a role in the present study. English-speaking nurses who participated in the study indicated more frequently that religion was not important and did not play a role in someone's decision to consider suicide. However one nurse's rich qualitative response illustrated how turning to one's faith assisted her to cope with parasuicidal patients in the ED.

Previous studies have not examined other facets of ED nurses' sociocultural orientation. Unique to this study, Canadian born and Caucasian nurses were more

supportive of a person's right to take his/her own life; but it is unclear if this can be perceived as a positive or negative attitude. Non-English speaking nurses in this study believed that persons who considered suicide had poor interpersonal or societal relationships. Canadian nurses and nurses with partners were more likely to view suicide as a more serious moral transgression. This could be considered a negative attitude if it diminished their ability to care for these patients.

Clinical Specialty. Eleven research studies have examined various healthcare professionals, their clinical specialty, and/or the type of hospital, unit or area worked, in relation to attitudes toward suicide. Three studies found nurses' attitudes to be more positive; in two, nurses were found to be more positive than other healthcare professionals like physicians or ambulance attendants (Ghodse, 1978; Ramon et al., 1975); and in the third, ED and short term care psychiatric nurses had more positive attitudes than nurses who worked in the intermediate or long term care unit (Sammuelsson et al, 1997). Only one study found ED nurses' attitudes more negative when compared to Intensive Care Unit nurses (Soukas & Lonnqvist, 1989, 1992). Eight found no evidence that any group of healthcare professionals, unit or area held more favourable attitudes than any other (Alston & Robinson, 1992; Anderson, 1997; Ansel & McGee, 1971; Bailey, 1994; Ghodse et al., 1981; Hawton et al., 1981; Platt & Salter, 1987). This research examined past clinical areas worked, as well as the type of hospital they presently worked in (teaching versus non-teaching; rural versus urban or outpost) and results supported the majority of studies; regardless of the past type of hospital, area or unit of clinical specialty that ED nurses worked in, there was no difference in attitude.

Resource Availability. Previous research found that inadequate time and staffing were related to negative attitudes (Pallikkathayil & Morgan, 1988; Soukas & Lonnqvist, 1989, 1992). Having psychiatric consultants, clinical specialists or experts readily available to assist in caring for the parasuicidal patient has been identified as having a positive effect on ED staff attitudes (Anderson, 1997; Long & Reid, 1996; O'Brien & Stoll, 1977; Pallikkathayil & Morgan, 1988; Soukas & Lonnqvist, 1989, 1992). Consistent with these findings, ED nurses in this study reported how frustrating it was to have inadequate time to provide care. Additional resources to care for the parasuicidal patient, such as experts or consultants readily available in the ED were also expressed as a need.

Qualitative responses provided rich descriptions of resource issues from ED nurses who worked in rural or outpost settings. Many found being in these settings frustrating due to the difficulty in obtaining appropriate patient care and referrals in a timely manner, and the lack of resources for patients.

Nursing Education. In one past research study student nurses who were involved in an interactive teaching strategy tended to have more positive attitudes than those who did not. They demonstrated more willingness to care for the parasuicidal patient and demonstrated a better ability to cope with their stress and frustration of caring for these patients (Pederson, 1993). In contrast, two other research studies found no significant attitudinal difference toward suicidal patients in relation to nurses' educational level or having had any suicidal training (Alston & Robinson, 1992; Elliot et al., 1992). Although the current study did not find a clear relationship between education/training and nurses attitudes, it did support past findings of many studies where nurses clearly expressed a need for additional education and training on issues surrounding the care for patients who

evidence parasuicidal behaviour (Alston & Robinson, 1992; Bailey, 1994; Elliot et al., 1992; O'Brien & Stoll, 1977; Pallikkathayil & Morgan, 1988; Sammuellsson et al., 1997; Sidley & Renton, 1996; Soukas & Lonnqvist, 1989, 1992). Respondents in this study did not indicate what approach would be beneficial in basic training, or when providing continuing education.

Professional Experience. Three previous studies (Anderson, 1997; McLaughlin, 1994; Sammuellsson et al., 1997) found that as ED nurses' experience with parasuicidal patients increased so did the likelihood that their attitudes would be more empathetic and positive. In contrast, however, Ghodse, 1978, found more favourable attitudes, and a willingness to care for the parasuicidal patient with ED nurses who had less experience. A common thread of negativity was revealed in a study of post-basic nursing students (Costigan et al., 1987). Students evidenced a negative stereotype of the parasuicidal patient and biases in determining the care to be provided. Consistent with these findings, ED nurses in the current study expressed approximately twice as many negative statements about providing care to parasuicidal patients in comparison to positive ones. However, though nurses frequently expressed negative attitudes, others were found to be positive, or a combination of both. Nurses attributed their negative attitudes to a limited knowledge base, lack of continuing education or training, and poor or nonexistent support and resources. Many nurses stated that the context of the situation affected their approach to caring for the parasuicide patient.

Personal Experience. Bailey (1994) found that personal experience made no significant difference to respondents' attitudes. In contrast, the ED nurses in this study who had a personal experience with suicide or parasuicide, expressed more positive

comments about caring for this type of patient. Some of the nurses wrote that the experience impacted them to such an extent that it changed the way they felt about caring for future parasuicidal patients. They were more positive.

Implications of Research Findings

Implications of the research findings will be discussed in relation to nursing practice, advanced practice nursing, nursing education and policy, and theory development.

Nursing Practice.

Suicide follows cancer and diseases of the circulatory system as one of the major causes of death in the general population, and injuries from suicidal behaviour closely follow motor vehicle injuries as the most likely cause of death for young Canadians. The estimated cost of attempted suicide in Canada ranges from \$33,000 to \$308,000 per individual depending on hospital and rehabilitation services required and the family disruption and support required following the attempt (Harrington, 1998). Further, suicidal behaviour in one family member may result in other family members choosing similar responses to distress in the future.

The number of individuals who present to the ED is on a steady rise (Aghababian, Peterson & Gans, 1992). Therefore the number of individuals in a suicidal crisis may also increase when individuals present to the ED in an effort to seek help as they face problems that cannot be readily solved with past coping mechanisms, and to find assistance in dealing with their problems. This study supports that though most ED nurses are adept in stabilizing the individual's medical condition, they feel unprepared and inadequate in intervening with the emotional and psychological component of the individual evidencing parasuicidal behaviour. Parasuicide presents a major challenge for

the ED nurse. To decrease the risk of repeating, the ED nurse needs to understand her/his role in providing care and referrals for these clients appropriately.

The significance of this study is that it has begun to place the examination of knowledge and attitudes of nurses toward suicide behaviour within the wider debate surrounding healthcare and suicide prevention. ED nurses work in an environment where they are continuously encountering parasuicidal patients. The quantitative and qualitative results identified that this was an emotionally charged topic for these nurses. Ambiguity was evident and may have been reflective of the highly “context specific” nature of nursing judgment in relation to assessment and care of the parasuicidal patient and their families. Some nurses recognized the important role the care and treatment they provided played in influencing an individual’s future decision to consider another attempt. An effective and efficient patient assessment, intervention and referral process needs to be developed and implemented for the ED. Standards of care for parasuicide need to be developed to help guide nurses in their practice.

The smallest interventions can be of real benefit to patients who have attempted suicide (Dunleavy, 1992), and the nurse’s approach may play a vital role in patients’ receptiveness to counselling or psychiatric support, as evidenced by many of the qualitative responses of nurses in this study. Furthermore, by just listening and accepting patients in a non-judgmental way, some respondents reported they were able to help empower parasuicidal patients to make constructive decisions regarding their care and future, rather than dwelling in shame with the stigma of a failed and foolish act. Some nurses wrote that once they were able to see these patients as people, with real pain, they were able to empathize with them and were less judgmental. By doing this, many stopped

the negative or diminishing behaviours evident in their care, and reported that they provided care in a nonjudgmental, positive way. Many nurses expressed that what the parasuicidal patient needs is caring and kindness, not ridicule, shame or avoidance. However they reported that they did not know how to create this environment in the ED, without help. With long waits for community services and the dwindling number of acute-care psychiatric beds, what new challenges will the parasuicidal patient face to find help? Nurses in this study indicated the need for increased resources both in and out of the ED. As the stressors on our health care system continue nurses and other caring professions should engage communities in developing new protocols and interventions to prevent and treat suicide/parasuicide.

It is evident from many of the responses of the participants that dealing with the parasuicidal person is stressful. ED nurses face high levels of stress everyday, a precursor to burnout and depression. Some nurses report having thoughts of suicide and have attempted in the past (Hawton & Visliser, 1999). Nurses in this study reported inadequate supports, such as experts, time, referrals, etc., which added to an already stressful environment in the ED when caring for parasuicidal patients. Difficulty in caring for these patients was expressed, especially when patients with a medical condition competed for their time and attention. Many nurses tended to concentrate on the patient's physical needs. Some nurses gave little consideration to the seriousness of the parasuicidal patient's attempt, viewing it more as attention seeking and ignoring the possible lethal outcome of this behaviour. If nurses are not aware of the impact of the patient's behaviour or their own then it is evident that nursing practice may be affected less positively than desired. As new nurses enter the ED they also may model these

behaviours, leading to further poor outcomes; it is key that nursing practice needs to be examined further.

Some nurses expressed the grief they felt when someone attempted or completed suicide. Professional caregivers are not immune to bereavement reactions when a patient or someone they know personally commits suicide, especially if they feel it could have been prevented. There is growing evidence that repeated stress from witnessing or experiencing events that cause unusual emotional upset (such as the death of a patient, disasters, sexual abuse, fires, workplace violence or parasuicide), can lead to unrecognized and unresolved psychological scars (Cudmore, 1996, 1998; Suicide Information and Education Centre, 1996; Oster & Doyle, 2000). Some nurses in this study reported avoiding caring for these patients. They related the negative or painful feelings they felt related to past experiences, either professional or personal. Experiential learning appears to play a key role in influencing and changing behaviours and attitudes of ED nurses toward parasuicide. It is clear that responsive and flexible on site education and support, and debriefing may be key to promoting positive attitudes and high quality care.

Lack of knowledge and stigma surrounding parasuicide are evident. Nurses are not fully aware of what is known about this phenomenon. Misconceptions may not only colour attitudes, but may lead to inappropriate interventions being chosen, or acted on. Though a majority of ED nurses (53%, $n = 59$) were aware that suicide attempts are not impulsive in nature, 47% were not. This suggests that perhaps close to half of ED nurses are unable to recognize the impending threat of certain aspects of this behaviour.

Presently nurses are educated and possess many of the skills that are beneficial in caring for parasuicidal patients, such as effective listening. But they may not recognize or use them with these patients. When we learn that 84% of nurses surveyed were not aware that a friendly ear can dissuade someone who is thinking about suicide, it is time to re-evaluate the care being provided. Nurses who work with these patients must be guided by an understanding that effective interventions in caring for parasuicidal patients are centered around emotional support and crisis management. Emotional support should not be seen as less important than the technological skills, medical treatments and interventions nurses provide. With knowledge, nurses may develop an understanding of the contribution they can make by providing more positive and effective treatment.

Many of the nurses in this study recognized that in caring for the parasuicidal patient they should also care for the family and significant others. The nurse must understand that this may lead to family demands for emotional support, such as dealing with grief, guilt, anger, searching for meaning, dealing with stigma and shame, and even the need to evaluate the risk of suicide among significant others. Nurses identified the lack of community resources and experts to meet these needs, especially as parasuicide patients are being discharged more often from the ED and treated as outpatients. Lack of community resources was viewed by many of the nurses as a major stressor, compounding frustration related to noncompliance with treatment plans, poor outcomes, and repeated ED visits (Kreitman, 1977; National Task Force on Suicide, 1994; Welu, 1977).

Advanced Nursing Practice.

Many nurses indicated the need for experts or consultants available for support in the ED. It is at the graduate level, in a clinical program designed for the ED or Mental Health Advanced Practice Nurse (APN), that the teaching of advanced clinical skills in suicide intervention and case management should be integral. The ED APN is an ideal clinician because he or she would be a member of the ED staff, adeptly prepared and trained to offer the rapid assistance needed to act as a consultant and role model. The APN can explicitly identify key areas of knowledge deficiency and provide individualized patient and family teaching and counselling. The kinds of key roles the APN can provide in relation to parasuicide include: (1) education and training of staff in caring for the parasuicidal patient; (2) being a role model in the provision of care; (3) identifying and networking with available community resources, (4) engaging communities and policy makers to develop services and resources; (5) developing policies and standard protocols; (6) conducting research to determine the effectiveness of interventions used; and (7) providing counselling and debriefing for staff members.

APNs need to become politically active to assist in the development of a comprehensive national strategy guided by federal policy and implemented with full federal and provincial participation (Harrington, 1998; National Task Force on Suicide in Canada, 1994). APNs can lead the way in establishing training programs for staff and developing standards of care and follow-up services at the policy level (federal and provincial). They can facilitate evaluation of research as new programs are implemented.

Many studies have looked at the increased stress levels in high-risk professional groups, and they consistently report increased cardiovascular disease, increased levels of

stress and stress-related disorders, and high rates of divorce, alcoholism, and suicide when compared with the general population (Blacklock, 1998; Mitchell, 1983; Oster & Doyle, 2000). Nurses in this study reported the stress involved in working in the ED, particularly when caring for parasuicidal patients. Nurses identified that additional education and an increase in staff and/or time to spend with the parasuicidal patients would help to decrease stress. Though nurses reported that support programs could be of assistance, they did not indicate what kind would be best. The employer should provide support groups, as well as the time to attend them. Assistance from the ED or Mental Health APN for debriefing or with leading support groups may help facilitate coping mechanisms. Critical incident stress debriefing has become increasingly recognized as a need for even the small-scale critical incidents that emergency personnel face on a daily basis (Burns & Harm, 1993; Cudmore, 1996, 1998; Suicide Information and Education Centre, 1996). This is a role an ED APN can assume with the completion of appropriate training. Prompt response to critical incidents with a defined system of defusing, debriefing, and referral, can help maintain staff's mental health, increase coping mechanisms, and prevent burnout.

Nursing Education and Policy.

Despite the fact that suicide has been ranked among the top 5-10 causes of death for many years, it has not received the same level of attention as other health problems that account for far fewer deaths annually. There is a clear need for increased awareness, research and attention to suicide and its prevention, as well as education of front line caregivers (Mishara, 1993; National Task Force on Suicide, 1994). This study suggests that Ontario ED nurses have a poor level of knowledge about suicide/parasuicide and

hold attitudes that could prevent them from establishing *nursing agency* with parasuicidal patients. Orem (1995, 2001) maintains, “beliefs of nurses and other health workers about their roles and the roles of others affect their interests and their willingness to function in cooperative relationships in health care situations” (p. 389). Consequently, nurse’s attitudes and health behaviour, as well as their knowledge, are likely to influence their approach to care, treatment, patient education and support.

For ED nurses to help the parasuicidal patient effectively they must make decisions about valid methods of assessment, planning and intervention. To do this nurses must be knowledgeable regarding suicide and parasuicide. Though the nurses in this study acknowledged the need for education and support in caring for the parasuicidal patient as a priority, exactly how best to accomplish this was not clear. Educational programs (basic training and continuing education) need to include comprehensive programs to educate nursing students and staff, as well as assistance to nursing faculty, educators and APNs in the assessment, training and prevention of suicide.

Additional training appears to be essential for all healthcare disciplines (physicians, social workers, security, clergy/spiritual care, etc.) with an emphasis on the ED nurse who may be first point of contact, especially in rural or outpost areas. To ensure a minimal level of competence in suicide intervention skills, the National Task Force on Suicide in Canada (1994) advocated that there should be at least one core course on suicide prevention at an undergraduate level. Additional educational opportunities need to be incorporated at key times, such as orientation to the ED as a new staff member, along with periodic reviews and updates for ED staff. Integral content at the graduate level for the Mental Health or ED APN would be to enhance and develop advanced

clinical skills in the case management of the parasuicidal patient, along with rigorous evaluation of the interventions used. The APN completing further field training and certification in critical incident stress debriefing would bring an enhanced level of expertise to the ED bedside.

Suicide remains a taboo issue in our society. The stigma of mental illness is evident from the participants of this study. If the taboo and stigma are to be removed, it will be necessary to improve the efficacy of education and the prevailing attitudes that surround suicide and parasuicide. Education programs need to be aimed at reducing the stigma associated with seeking treatment and support for not only for the suicidal crises, but all mental health crises. Educators and APNs need to be role models in caring for individuals who evidence suicidal behaviour.

Nurses have a high risk of suicide (Goetz, 1998; Peipins, Burnett, Alterman, & Lalich, 1997). In this study some nurses reported that colleagues, and even they themselves had evidenced suicidal or parasuicidal behaviour at some point in time. Nursing students have to adjust to a rigorous and often stressful program of theory and clinical practice. With more males entering the profession, we may see the risk for suicide start to escalate since suicide rates for males in Canada have risen to four times higher than for females in the 1990s (Suicide Information and Education Centre, 1998). Nursing faculty are in a favourable position to identify, assess and refer nursing students who appear to be at risk for suicide. We should be proactive, and help prepare nurses to take good care of themselves and their own mental health needs.

Theory Development (Nursing Agency and Basic Conditioning Factors).

The Theory of Nursing Systems (Orem, 1995, 2001) proposes that *nursing agency* is effected, limited, enhanced, or modified in various situations by the basic conditioning factors (BCF), both internal and external, that impact upon nurses. A limited amount of research has examined nursing agency in relation to a nurses' knowledge and/or attitudes (Bennett & DeMayo, 1993; Bidigare & Oermann, 1991; Ienatsch, 1999; Rossow-Sebring, Carrieri, & Seward, 1992), though none related to parasuicide. It is difficult to compare findings of this study with past research as the focus of each study varied, as did the BCFs examined (if any) and the results. However, all indicated that a possible relationship exists between *nursing agency* and knowledge and/or attitudes. Comparing the BCFs from one research study to the next was difficult due to variations in measurement.

In this study, knowledge about parasuicide was related to only two variables that represented a BCF, the size of the ED (number of beds) and primary language spoken at home. The larger the ED, the higher the level of knowledge found. This BCF needs to be investigated further to determine what "size of the ED" is truly representing, thereby providing a more accurate indication of the factor's effect or influence. Is the size of an ED actually representative of the number of parasuicidal patients seen, thereby increasing nurses' contact and experience with these patients? Or, do these larger EDs offer something extra, like an established standard of care to deal with the parasuicidal patient? Given teaching hospitals were examined and they were not seen to affect knowledge scores, there appears to be more going on than the number of beds.

Nurses who spoke English at home was an overwhelming 94%, and yet, they were found to have a lower level of knowledge. This needs to be examined further to see if the variable is being measured in a meaningful way, or has any relevant meaning to the studied variables.

Some interesting though inconclusive results surrounding the relationships among BCFs and attitudes were identified in this study. There was no relationship between attitudes and gender, clinical specialty, resource availability, nursing education, and professional or personal experiences, though many qualitative responses did speak to their effects.

One past study that used Orem's self-care model as a framework looked at nurses' attitudes and organ procurement; older nurses evidenced more positive attitudes towards suicide (Bidigare & Oermann, 1991). In the current study the older the nurse the more positive his or her attitude. Age and the number of years one practiced as a nurse were very highly correlated and it is difficult to determine in this study which one actually was the variable related to attitude.

Sociocultural orientation was examined using religion, English-speaking nurses, country of birth, race, and partner status, and all had significant results with one of the attitudinal subscales. However, it is difficult to interpret the results of the subscales as representing either a positive or negative attitude. Many nurses wrote that the context needed to be considered, as the statements in the subscales did not present the whole picture. The instrument was also not clear on what score clearly indicates a positive or negative attitude. The homogeneity of the groups in each of these variables, generally

over 90%, suggests the significance of sociocultural orientation, as many of the individual statistics were highly prone to Type II error.

In looking at the qualitative results, one finding of this study was that one-third of nurses who had a personal experience reported a more positive or empathetic attitude and a willingness to care for these patients. This suggests that a first-hand personal experience may be important in promoting an interest in suicide/parasuicide care. Although other studies also found past professional experience related to a positive attitude (Bennett & DeMayo, 1993; Bidigare & Oermann, 1991; Ienatsch, 1999), the current study found that almost twice as many negative attitudes were identified in the qualitative responses. Lack of support, continuing education or standards of care may have influenced nurses to feel stressed and unable to care for these patients effectively.

In looking at attitudes, some of the BCFs (number of years as a nurse, teaching hospital, nurse's SES, consult services, personal experiences, number of ED beds, ability to care for a suicide patient) were identified as predictor variables in four of the attitude subscales that accounted for 7% to 24 % of the variance. Both BCFs, suicide ability and personal experience, were significant individual predictors accounting for 12% of the variance on the Emotional Perturbation subscale. It is difficult to categorize nurses as having a negative attitude if they believed that a heightened negative emotional state would more likely lead to suicide. A further examination into why needs to be studied.

What is surprising in the past literature is the relationship between knowledge and attitudes. A lower level of knowledge does not always translate to a negative attitude (Bidigare & Oermann, 1991). Results in this study are inconclusive and ambiguous. Improved research measures, which consider the context of the patient's situation, (e.g.,

vignettes) are needed to examine nurses' knowledge and attitudes and their impact on *nursing agency*.

Implications for Future Research

Given the complexity of caring for the parasuicidal patient, future research is needed to examine ED nurses' knowledge of and attitudes toward parasuicide. Further study using more precise measurement tools are needed to determine what would constitute good theoretical or practical understanding of knowledge of suicide and parasuicide. The type of knowledge assessed in this research is described by Orem (1995, 2001) as a form of knowing, which "involves association, and integration of antecedent knowledge (what is already known) and information about reality situations with awareness of meaning of different realities and configurations of knowledge" (p. 9). Therefore, questions raised in the results surrounding knowledge are sufficiently encouraging to warrant further study. A similar study should be carried out using improved measurements, a representative sample, and/or a different research approach, including vignettes.

Although this is one of the first descriptive studies done in Canada looking at ED nurses, further research is called for as the findings raise many questions. Attitudes towards the parasuicidal patient, particularly those that could impinge on nurses' willingness to provide care and the quality of the care provided, remain an important concern.

Investigating attitudes in the way this study did does not give any indication of the relationship between attitudes elicited and the actual care ED nurses provided to parasuicidal patients. Attitudes appear to be complicated, and given the various contexts that parasuicidal behaviour can be found in, these attitudes cannot be easily categorized

in terms of negative or positive. A measure more specific to various types of parasuicidal situations or caregiving activities in the ED may be more useful for making inferences about knowledge level and willingness to assume specific nursing responsibilities. One way this could be accomplished is to explore attitudinal variations within social contexts using vignettes involving a variety of hypothetical parasuicidal patients treated in the ED, or through the use of observation techniques as ED nurses care for parasuicidal patients. Qualitative research to explore ED nurses knowledge and attitudes would lend direction to the preparation of relevant vignettes.

The practical implications of reported studies are also elusive. We need to make sense of the findings, and to know when we are making progress. We need to determine how big (or small) a variation in knowledge or attitudes can influence nursing agency (care). It was beyond this study to explore the type of interventions or protocols that ED nurses are presently using. Though nurses studied did not address the efficacy of their present treatment plan, it is time we did. Few programs, standards of care and/or protocols have been rigorously evaluated for their ability to help facilitate the detection, assessment and management of the parasuicidal patient (Mishara & Daigle, 1992; National Task Force on Suicide in Canada, 1994). Standards of care for suicidal patients in the ED need to be identified, evaluated and researched. Quality assurance programs that examine and measure outcomes could contribute to planning staff development, effective standards for parasuicide care, and definition of researchable practice questions surrounding the care of parasuicide patients.

Longitudinal studies are needed to investigate and document nurses' knowledge, skills and attitudes as these evolve over time in response to education and professional

and personal experiences. Results of a study of this type may enhance the understanding of *nursing agency*. By conducting longitudinal comparisons of *nursing agency* with nurses who have no experience, to those with increasing contact at various points in time in their career, we may better understand the effect of the various BCFs.

Though longitudinal studies may provide a better picture of what impacts nurses' knowledge and attitudes over time, we need to implement strategies and educational programs that will increase nurses' knowledge levels and promote more positive attitudes towards caring for parasuicidal patients immediately. As we develop and implement these programs, we need to look at how they translate into provision of quality nursing care (*nursing agency*) and improved patient outcomes.

The ED nurses' role in the care of patients who evidence parasuicidal behaviour is to empower patients toward maximum self-care ability (*agency*). Orem (2001) states that "nurses act to help patients meet their therapeutic self-care demands and regulate the exercise or development of their abilities to engage in self-care" (p. 322). Orem finds an effective nursing system helps provide ways to relate behaviours of both nurse and patient to accomplish nursing goals appropriate to the situation. ED nursing is complex and multifaceted, as is caring for the parasuicidal patient. It is important that a more in-depth exploration of factors that can shape *nursing agency* be an area for theory development, especially those factors influenced by education and professional experience. The examination of the BCFs of the patient and the context of the patient's situation needs to be examined to determine its influence on a nurse's willingness to interact with the parasuicidal patient. Operational definitions of the BCFs need to be

more clearly defined to allow for aggregation of findings across studies, thus supporting greater impact on practice.

The nurse must be committed to care for the patient as long as the patient needs it, to have the necessary knowledge, skills, and resources to meet the needs of the patient, and ensure that care is provided in a way that maintains dignity and integrity. A more in-depth exploration of the BCFs needs to assess what factors can influence *nursing agency*. Better interventions can be implemented if what affects a nurse's ability to act, know, or help patients is recognized. Important directions for continuing inquiry include: 1) contextual or situational factors that may influence *nursing agency* in terms of competency and performance; 2) BCFs that may influence supportive interaction; and 3) ways to develop more positive attitudes which may foster improved patient care.

Conclusion

A descriptive study such as this does not yield definitive answers. Instead it creates and clarifies questions related to ED nurses' knowledge about, and attitudes toward, parasuicide. With time constraints and dwindling resources nursing is called upon to examine the effectiveness of basic and continuing education programs, which promote and demonstrate the most effective approach to maximize positive health outcomes for this vulnerable and multifaceted patient. Standards of care for suicidal and parasuicidal patients in the ED need to be developed, evaluated and researched. It is time to engage communities in an effort to provide increased support services and to assist in the development of a comprehensive national strategy guided and implemented by federal and provincial participation.

The findings of this research highlight the importance of reliable and valid measurement tools in examining knowledge, attitudes and the influence of *nursing agency*, and nursing research in general. What constitutes “good knowledge” about suicide and parasuicide needs to be examined further and improved measures developed to better assess nurses’ knowledge levels. Through the use of vignettes, or a rigorous qualitative approach, a more accurate and hence, more useful perception of nurses’ knowledge about, and attitudes toward caring for a variety of parasuicidal patients may be examined. The method needs to allow the nurse to express his or her ability to care for the patient. Further theory development and research is needed to study basic conditioning factors in relation to *nursing agency*, and the effectiveness of nursing interventions designed to promote positive outcomes in this patient population.

The practice, educational, research, and theory development recommendations arising from this study lay the ground work needed to improve the care and health outcomes of individuals who enter our EDs evidencing parasuicidal behaviour.

References

- Aghababian, R., Peterson, L., & Gans, L. (1992). Utilization of emergency services: The nineties. In G. R. Schwartz, C. G. Cayten, M. A. Mangelsen, T. A. Mayer, & B. K. Hanke, (Eds.), *Principles and practices of emergency medicine*. (Vol. II, 3rd ed., pp. 686-691). Philadelphia: Lea & Febiger.
- Ajen, I. (1988). *Attitudes, personality and behaviour*. Chicago: Dorsey Press.
- Alston, M. H., & Robinson, B. H. (1992). Nurses' attitudes toward suicide. *Omega*, 25, 205-215.
- American Association of Suicidology. (2001). *Things you should know about suicide*. Retrieved from <http://www.suicidology.org/index.html>
- American Foundation for Suicide Prevention. (2001). *About suicide*. Retrieved from <http://www.afsp.org/index-1.htm>
- Anderson, M. (1997). Nurses' attitudes toward suicidal behaviour—A comparative study of community mental health nurses and nurses working in an accident and emergency department. *Journal of Advanced Nursing*, 25, 1283-1291.
- Ansel, E. L. & McGee, R. K. (1971). Attitudes toward suicide attempters. *Bulletin of Suicidology*, 8, 22-28.
- Bailey, S. (1994). Critical care nurses' and doctors' attitudes to parasuicide patients. *The Australian Journal of Advanced Nursing*, 11(3), 11-17.
- Bennett, J. A., & DeMayo, M. (1993). Caring in the time of AIDS: The importance of empathy. *Nursing Administration Quarterly*, 17(2), 46-60.
- Bidigare, S. A., & Oermann, M. H. (1991). Attitudes and knowledge of nurses regarding organ procurement. *Heart and Lung*, 20(1), 20-24.

- Blacklock, E. (1998). Workplace stress: a hospital team approach. *Professional Nurse*, 13(11), 744-747.
- Bland, R. C., Newman, S. C., & Dyck, R. J. (1994). The epidemiology of parasuicide in Edmonton. *Canadian Journal of Psychiatry*, 29(2), 391-396.
- Brink, P. J., & Wood, M. J. (Eds.). (1989). *Advanced design in nursing research*. Newbury Park, CA: Sage.
- Broughton, H. (Ed.). (1998). Nursing shortage looming. *CNA Today*, 8(1), 1.
- Burns, N., & Grove, S. K. (1999). *Understanding nursing research* (2nd. ed.). Philadelphia: W. B. Saunders Company.
- Burns, N., & Grove, S. K. (2001). *The practice of nursing research. Conduct, critique, & utilization* (4th. ed.). Philadelphia: W. B. Saunders Company.
- Burns, C., & Harm, N. J. (1993). Emergency nurses' perceptions of critical incidents and stress debriefing. *Journal of Emergency Nursing*, 19, 431-436.
- Canadian Mental Health Association. (2001). *Fact sheets. Suicide*. Retrieved from http://www.ontario.cmha.ca/content/information_and_links/factsheet
- Centers for Disease Control and Prevention (CDC). (2001). *SafeUSA. Preventing suicide*. Retrieved from <http://www.cdc.gov/safusa/suicide.htm>
- Center for Mental Health Services. (2001). *National Strategy for Suicide Prevention*. Retrieved from <http://www.mentalhealth.org/suicideprevention>
- Cohen, B. (1996). *Explaining psychological statistics*. New York: Brooks/Cole Publishing Company.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioural sciences* (2nd. ed.). Hillsdale, NJ: Erlbaum.

- Costigan, J., Humphrey, J., & Murphy, C. (1987). Attempted suicide: a personal construct psychology exploration. *The Australian Journal of Advanced Nursing*, 4(2), 39-50.
- Crosby, F. E., Ventura, M. R., & Feldman, M. J. (1989). Examination of a survey methodology: Dillman's total design method. *Nursing Research*, 38, 56-58.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 349-354.
- Crowne, D. P., & Marlowe, D. (1964). *The approval motive*. New York: Wiley.
- Cudmore, J. (1996). Preventing post traumatic stress disorder in accident and emergency nursing. A review of the literature. *Nursing in Critical Care*, 1(3), 120-126.
- Cudmore, J. (1998). Critical incident stress. Management strategies. *Emergency Nurse*, 6(3), 22-27.
- DeRose, N., & Page, S. (1985). Attitudes of professional and community groups towards male and female suicide. *Canadian Journal of Community Mental Health*, 4(1), 51-64.
- Dillman, D. (1978). *Mail and telephone surveys: The total design method*. New York: Wiley & Sons.
- Domino, G. (1996). Test-retest reliability of the Suicide Opinion Questionnaire. *Psychological Reports*, 78, 1-2.
- Domino, G., MacGregor, J. C., & Hannah, M. T. (1988-1989). Collegiate attitudes towards suicide: New Zealand and United States. *Omega*, 19, 351-364.
- Domino, G., Moore, D., Westlake, C., & Gibson, C. (1982). Attitudes towards suicide: a factor analytic approach. *Journal of Clinical Psychology*, 38, 257-262.

- Dunleavy, R. (1992). An adequate response to a cry for help? Parasuicide patient's perceptions of their nursing care. *Professional Nurse*, 7(4), 213-215.
- Ekker, T. (1991). When hope is lost... Dealing with the suicidal patient. *Journal of Emergency Medical Services*, 16(11), 64-67.
- Elliott, E., Pitts, M., & McMaster, J. (1992). Nurses' views of parasuicide in a developing country. *The International Journal of Social Psychiatry*, 38(4), 273-279.
- Ghodse, A. H. (1978). The attitudes of casualty staff and ambulance personnel towards patients who take drug overdose. *Social Science and Medical*, 12, 341-346.
- Ghodse, A. H., Ghaffari, K., Bhat, A. V., Galea, A., & Qureshi, Y. H. (1986). Attitudes of health care professionals toward patients who take overdoses. *International Journal of Social Psychiatry*, 32(4), 58-63.
- Goetz, C. (1998). Are you prepared to S.A.V.E. your nursing student from suicide? *Journal of Nursing Education*, 37(2), 92-95.
- Goldney, R. D., & Bottrill, A. (1980). Attitudes to patients who attempt suicide. *The Medical Journal of Australia*, 2, 717-720.
- Harrington, G. G. (1998). *National strategies for the prevention of suicide: Presentation guide*. Calgary, Alberta, Canada: Suicide Information and Education Centre.
- Hawton, K., Marsack, P., & Fagg, J. (1981). The attitudes of psychiatrists to deliberate self-poisoning: Comparison with physicians and nurses. *British Journal of Medical Psychology*, 54, 341-348.
- Hawton, K., & Vislisl. L. (1999). Suicide in nurses. *Suicide And Life-Threatening Behavior*, 29(1), 86-9.
- Hollingshead, A. (1978). *Four factor index of social status*. Unpublished manuscript.

New Haven, CT: Yale, University.

Hoyert, D. L., Arias, E., Smith, B. L., Murphy, S. L., & Kohanek, K. D. (2001). *Deaths:*

Final data for 1999. National Vital Statistics Report, 49(8). Hyattsville, MD:

National Center for Health Statistics. DHHS Publication No. (PHS) 2001-1120.

Ienatsch, G. (1999). Knowledge, attitudes, treatment practices, and health behaviors of nurses regarding blood cholesterol. *The Journal of Continuing Education in Nursing, 30*(1), 13-19.

Kaplan, M. L., Asnis, G. M., Sanderson, W. C., Keswani, L., De Lucuona, J. M., &

Joseph, S. (1994). *Suicide assessment: Clinical interview vs. self-report, 50, 294-298.*

Kerkhof, A. J. F. M., Schmidtke, A., Bille-Brahe, U., De Leo, D., & Lonnqvist, J. (Eds.).

(1994). *Attempted suicide in Europe: Findings from the multicentre study on*

parasuicide by the WHO regional office for Europe. The Netherlands: DSWO Press,

Leiden University.

Kreitman, M., Philip, A. E., Greer, S., & Bagley, C. R. (1969). Parasuicide. *British*

Journal of Psychiatry 115, 746-747.

Labovitz, S. (1970). The assignment of numbers to rank order categories. *American*

Sociological Review, 35, 515-524.

Lester, D., & Castromayor, I. (1994). Myths about suicide in American and Philippine

nurses. *Psychological Reports, 75, 538.*

Links, P. S. (1998). Suicide and life: The ultimate juxtaposition. *Canadian Medical*

Association Journal, 158, 514-515.

Long, A., & Reid, W. (1996). An exploration of nurses' attitudes to the nursing care of

- the suicidal patient in an acute psychiatric ward. *Journal of Psychiatric and Mental Health Nursing*, 3, 29-37.
- McLaughlin, C. (1994). Casualty nurses' attitudes to attempted suicide. *Journal of Advanced Nursing*, 20, 111-1118.
- Ministry of Health, Ontario. (1990). *The 1990 Ontario health survey 1990 – User's guide vol. 1 – Documentation*. Toronto, Ontario, Canada: Premiers Council on Health, Well-Being and Social Justice.
- Mishara, B.L. (1993). Suicide: A public health concern? / Le suicide: un problème important pour la santé publique? [Editorial]. *Canadian Journal of Public Health/Revue canadienne de santé publique*, 84(4), 222-225.
- Mishara, B. L., & Daigle, M. (1992). The effectiveness of telephone interventions by suicide prevention centers. *Canada's Mental Health*, 40(3), 24-29.
- Mitchell, J. T. (1983). When disaster strikes: The critical incident stress debriefing process. *Journal of Emergency Medical Services*, 8(1), 36-39.
- National Institute of Mental Health. (NIMH). (2001). *Suicide*. Retrieved from <http://nimh.nih.gov/publicat/depsuicidemenu.cfm>
- National Task Force on Suicide in Canada. (1994). *Suicide in Canada*. Ottawa, Ontario, Canada: Minister of National Health and Welfare.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). Toronto: McGraw-Hill.
- O'Brien, S. E. M., & Stoll, K. A. (1977). Attitudes of medical and nursing staff towards self-poisoning patients in a London hospital. *International Journal of Nursing Studies*, 14(1), 29-35.
- Okraine, G. (1990). Males in nursing: Historical perspectives and analysis. *AARN*

Newsletter, 46(2), 6-8.

Okraïneç, G. (1993). Canadian male nursing students. *AARN Newsletter*, 49(7), 3.

Oppenheim, A. N. (1992). *Questionnaire, design, interviewing and attitude measurement*.

London: New Addition, Printer Publishers.

Orem, D. E. (1991). *Nursing: Concepts of practice* (4th ed.). St. Louis, MO: Mosby.

Orem, D. E. (1995). *Nursing: Concepts of practice* (5th ed.). St. Louis, MO: Mosby.

Orem, D. E. (2001). *Nursing: Concepts of practice* (6th ed.). St. Louis, MO: Mosby.

Oster, N. S., & Doyle, C. J. (2000). Critical incident stress and challenges for the emergency workplace. *Emergency Medicine Clinics of North America*, 18(2), 339-353.

Pallikkathayil, L., & Morgan, S. A. (1988). Emergency department nurses' encounters with suicide attempters: A qualitative investigation. *Scholarly Inquiry for Nursing Practice: An International Journal*, 2, 237-253.

Pederson, C. (1993). Promoting nursing students' positive attitudes toward providing care for the suicidal patients. *Issues in Mental Health Nursing*, 14, 67-84.

Peipins, L., Burnett, C., Alterman, T., & Lulich, N. (1997). Mortality patterns among female nurses: A 27-state study, 1984 through 1990. *American Journal of Public Health*, 87(9), 1539-1543.

Platt, S., & Salter, D. (1987). A comparative investigation of health workers' attitudes toward parasuicide. *Social Psychiatry*, 22, 202-208.

Polit, D. F., & Hungler, B. P. (1995). *Nursing research. Principles and methods* (5th ed.). Philadelphia: Lippincott.

Ramon, S., Bancroft, J. H. J., & Skrimshire, A. M. (1975). Attitudes toward self-

- poisoning among physicians and nurses in a general hospital. *British Journal of Psychiatry*, 127, 257-264.
- Rogers, J. R., & DeShon, R. P. (1992). A reliability investigation of the eight clinical scales of the suicide opinion questionnaire. *Suicide and Life-Threatening Behavior*, 22, 428-441.
- Rogers, J. R., & DeShon, R. P. (1995). Cross-validation of the five-factor interpretive model of the suicide opinion questionnaire. *Suicide and Life-Threatening Behavior*, 25, 305-309.
- Román, E. M., Sorribes, E., & Ezquerro, O. (2001). Nurse' attitudes to terminally ill patients. *Journal of Advanced Nursing*, 34(3), 338-345.
- Rossow-Sebring, J., Carrieri, V., & Seward, H. (1992). Effect of Orem's model on nurse attitudes and charting behavior. *Journal of Nursing Staff development*, 8(5), 207-212.
- Samuelsson, M., Asberg, M., & Gustavsson, J. P. (1997). Attitudes of psychiatric nursing personnel towards patients who have attempted suicide. *Acta Psychiatrica Scandinavica*, 95, 222-230.
- Shamian, J. (1998). Nursing is the key: Is the door open or closed? *RN Journal*, 10(3), 4-6.
- Sidley, G., & Renton, J. (1996). General nurses' attitudes to patients who self-harm. *Nursing Standard*, 10(30), 32-36.
- Suicide Information and Education Centre. (1996). Debriefing a critical incident. *SIEU ALERT*, 21, 1-2.
- Suicide Information and Education Centre. (1998). Trends in Canadian suicide. *SIEU ALERT*, 30, 1-2.

Suicide Information and Education Centre. (1998). Barriers to Help-Seeking. *SIEU*

ALERT, 35, 1-2.

Suicide Information and Education Centre. (2002). *Suicide alert. Quick reference guides.*

Retrieved from <http://www.suicideinfo.ca/library/alert/index.asp>

Suokas, J., & Lonnqvist, J. K. (1989). Work stress has negative effects on the attitudes of emergency personnel towards patients who attempt suicide. *Acta Psychiatrica Scandinavica*, 79, 474-480.

Suokas, J., & Lonnqvist, J. K. (1992). Treatment of attempted suicide patients in a general hospital. *Psychiatria Fennica*, 23, 41-46.

Statistics Canada. (2001). *Suicides, and suicide rate, by sex, by age group* [Catalogue no. 82F0075XCB]. Available from Statistics Canada, Health Web Site, <http://www.statcan.ca/english/Pgdb/People/Health/health01.htm>

Stengal, E. (1970). *Suicide and attempted suicide*. Harmondsworth, United Kingdom: Penguin.

Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics* (3rd ed.). New York: HarperCollins College Publishers.

Vigar, C. (1997). Concern for client care. A letter to the minister. *Communiqué*, 22(2), 19-20.

Wallace, M.D. (2001). *Attitudes towards suicide: A structure model and its relationship to experience with suicide*. Unpublished doctoral dissertation, University of Windsor, Ontario, Canada.

Waltz, C. F., Strickland, O. L., & Lenz, E. R. (1991). *Measurement in nursing research* (2nd ed.). Philadelphia: F. A. Davis Company.

Wehu, T. C. (1977). A follow-up program for suicide attempters: Evaluation of effectiveness. *Suicide & Life-Threatening Behaviour*, 7(1), 17-30.

World Health Organization. (1986). *WHO summary report, working groups on preventive practices in suicide and attempted suicide*. York, England. September, 22-26.

Appendix A

Sample Letter to be Distributed to All Participants for First Mailing

Dear Colleague,

My name is Kim M. Watson and I am a candidate in the Master of Science Program in Nursing at the University of Windsor. Having received ethical clearance from the Nursing Research Committee at the University of Windsor, I am conducting a research study with Emergency Department Nurses in Ontario. A random sample of 400 nurses whose primary area of practice is the Emergency Department was obtained through the College of Nurses of Ontario.

The aim of this research study is to gain more understanding about the knowledge, attitudes and experiences of Emergency Nurses with regard to individuals who attempt suicide (parasuicide). Regardless of your past experience with patients/individuals who have attempted suicide, you are encouraged to complete the survey. Your response will provide a clearer picture of nurses' knowledge and attitudes. There are no right or wrong answers.

Participation in this study is completely voluntary. Your participation will take require approximately 30 - 40 minutes of your time. In order to ensure the anonymity of your responses you are being asked not to write your name on any of the answer sheets. Only the summarized group responses will be provided in any reports of this study. All data will be destroyed at the end of the study. The College of Nurses of Ontario will not know if subjects participated or not.

If you have further questions please do not hesitate to contact me at (313) 343-1735 (during work hours) or at (519) 972-5698. My faculty advisor, Dr. M. Elizabeth Horsburgh, is also available to discuss questions or concerns related to this study through the School of Nursing, University of Windsor at (519) 253-4232, Ext 2259.

Thank-you for taking the time to complete the survey. Please place your completed survey in the self-addressed envelope (postage provided) and seal the envelope. Mail it with Canada Post to the School of Nursing, University of Windsor. Returning the completed questionnaire implies you understand this information and voluntarily consent to participate in this study.

Sincerely,

Kim M. Watson, RN, MSc (cand.)

Appendix B

Sample Letter to be Distributed to All Participants for Second Mailing

Dear Colleague,

My name is Kim M. Watson and I am a candidate in the Master of Science Program in Nursing at the University of Windsor. Having received ethical approval from the Nursing Research Committee at the University of Windsor, I will be conducting a research study with Emergency Department Nurses in Ontario. Names of nurses whose primary area of practice is the Emergency Department were obtained through the College of Nurses. The College of Nurses of Ontario will not know if subjects participated or not.

The aim of this research study is to gain more understanding about the knowledge, attitudes and experiences of Emergency Nurses toward individuals who attempt suicide (parasuicide). Regardless of your past experience with patients/individuals who have attempted suicide, you are encouraged to complete the survey. Your response will provide a clearer picture of nurses' knowledge and attitudes in Ontario. I would like to inform you that there are no right or wrong answers.

Participation in this study is completely voluntary. Your participation will take approximately 30 - 35 minutes of your time. In order to ensure the anonymity of your responses you are being asked not to write your name on any of the answer sheets. Since the study preserves your anonymity, I haven't any way of determining who has returned the survey to date; therefore everyone was mailed a second survey. If you have already completed the first one, please ignore this mailing. If not, I would like to offer you a second opportunity to participate.

If you have further questions please do not hesitate to contact me at (313) 343-1735 (during work hours) or at (519) 972-5698; or my faculty advisor, Dr. M. Elizabeth Horsburgh, through the University of Windsor at (519) 253-4232, Ext 2259.

After completing the survey please place it in the self-addressed envelope (postage provided) and seal the envelope. Mail it with Canada Post. Returning the completed questionnaire implies you understand this information and voluntarily consent to participate in this study. Thank-you for your time and consideration.

Sincerely,

Kim M. Watson, RN, MSc (cand.)

Appendix C1
Demographics

Finally, I would like to ask a few questions for statistical purposes.

Age (Ministry of Health, Ontario, 1990)

Your present age: _____ YEARS

Gender (Ministry of Health, Ontario, 1990)

Your sex: (Circle your answer)

1 MALE 2 FEMALE

Sociocultural Orientation (Ministry of Health, Ontario, 1990)

In what country were you born? (Circle your answer)

- | | |
|------------------|----------------------------------|
| 1 CANADA | 11 INDIA |
| 2 UNITED KINGDOM | 12 SRI LANKS |
| 3 ITALY | 13 HONG KONG |
| 4 UNITED STATES | 14 VIETNAM |
| 5 PORTUGAL | 15 PHILIPPINES |
| 6 POLAND | 16 HUNGARY |
| 7 GERMANY | 17 YUGOSLAVIA |
| 8 HOLLAND | 18 EL SALVADOR |
| 9 GREECE | 19 OTHER (specify country) _____ |
| 10 JAMAICA | |

What is your ethnic or cultural identity? (Circle the one that most applies to you)

- | | |
|-------------|----------------------------------|
| 1 FRENCH | 11 EAST INDIAN |
| 2 ENGLISH | 12 HUNGARIAN |
| 3 GERMAN | 13 POLISH |
| 4 SCOTTISH | 14 PORTUGUESE |
| 5 IRISH | 15 NORTH AMERICAN INDIAN |
| 6 ITALIAN | 16 METIS |
| 7 UKRAINIAN | 17 INUIT |
| 8 DUTCH | 18 CANADIAN |
| 9 CHINESE | 19 OTHER (specify country) _____ |
| 10 JEWISH | |

What language do you speak most often at home? (Circle one)

- | | |
|--------------|--------------------------|
| 1 ENGLISH | 8 GREEK |
| 2 FRENCH | 9 SPANISH |
| 3 ITALIAN | 10 HUNGARIAN |
| 4 PORTUGUESE | 11 CHINESE |
| 5 POLISH | 12 VIETNAMESE |
| 6 GERMAN | 13 TAMIL |
| 7 DUTCH | 14 OTHER (specify) _____ |

Partnered/Non-partnered (Ministry of Health, Ontario, 1990)

Are you presently married or living with someone?

1 NO 2 YES

Appendix C2

Demographics

Sociocultural Orientation: Four Factor Index of Social Status

(Hollingshead, 1978)

Please list your work status:

PRESENT JOB: _____

Please describe your occupation. (if retired or disabled, describe your occupation before retirement or disability.)

TITLE: _____

TYPE OF WORK: _____

TYPE OF COMPANY OR BUSINESS: _____

What is the highest level of education that you have completed?

Circle the number of choice.

- | | |
|--|---|
| LESS THAN GRADE 7 | 1 |
| GRADE 7 OR 8 | 2 |
| UP TO GRADE 9 | 3 |
| PARTIAL HIGH SCHOOL (Grade 10 or 11) | 4 |
| HIGH SCHOOL GRADUATE | 5 |
| PARTIAL COLLEGE (At least 1 year specialized training) | 6 |
| STANDARD COLLEGE OR UNIVERSITY GRADUATION | 7 |
| GRADUATE PROFESSIONAL TRAINING (Graduate Degree) | 8 |

Appendix C3

Demographics

Social Desirability Response Bias
(Marlowe-Crowne Scale; Crowne & Marlowe, 1960)

DIRECTIONS Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it describes you. **Circle your answer.** T = True F = False

1. Before voting I thoroughly investigate the qualifications of all the candidates.	T	F
2. I never hesitate to go out of my way to help someone in trouble.	T	F
3. It is sometimes hard for me to go on with my work if I am not encouraged.	T	F
4. I have never intensely disliked anyone.	T	F
5. On occasion I have had doubts about my ability to succeed in life.	T	F
6. I sometimes feel resentful when I don't get my way.	T	F
7. I am always careful about my manner of dress.	T	F
8. My table manners at home are as good as when I eat out in a restaurant.	T	F
9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.	T	F
10. On a few occasions, I have given up doing something because I thought too little of my ability.	T	F
11. I like to gossip at times.	T	F
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.	T	F
13. No matter who I'm talking to, I'm always a good listener.	T	F
14. I can remember "playing sick" to get out of something.	T	F
15. There have been occasions when I took advantage of someone.	T	F
16. I'm willing to admit it when I make a mistake.	T	F
17. I always try to practice what I preach.	T	F
18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.	T	F
19. I sometimes try to get even, rather than forgive and forget.	T	F
20. When I don't know something I don't mind admitting it.	T	F
21. I am always courteous, even to people who are disagreeable.	T	F
22. At times I have really insisted on having things my own way.	T	F
23. There have been occasions when I felt like smashing things.	T	F
24. I would never think of letting someone else be punished for my wrongdoings.	T	F
25. I never resent being asked to return a favour.	T	F
26. I have never been irked when people expressed ideas very different from my own.	T	F
27. I never make a long trip without checking the safety of my car.	T	F
28. There have been times when I was quite jealous of the good fortune of others.	T	F
29. I have almost never felt the urge to tell someone off.	T	F
30. I am sometimes irritated by people who ask favours of me.	T	F
31. I have never felt that I was punished without cause.	T	F
32. I sometimes think when people have a misfortune they only got what they deserved.	T	F
33. I have never deliberately said something that hurt someone's feelings.	T	F

Appendix C4

DemographicsDemographic Data Form

Mark your answers carefully. Please circle your answer, or fill in the blanks.

1. You are a nurse working in an emergency area, how do you feel about providing care for parasuicide (failed suicide attempt) patients?

2. What is your Religion? Catholic Protestant Anglican
Jewish Baptist Christian Pentecostal Hindu
Other: _____

3. What is your Racial Identification? Caucasian Asian
Black/African American Native American Hispanic
Other: _____
If Mixed (identify): _____

4. You graduated from your "initial RN" program in 19_____.

5. Type of "initial RN program"? College program / Diploma Nursing
Hospital program BScN

6. Identify any additional formal education in nursing since graduating:
College program / Diploma Nursing BScN
Associate Diploma Program (ADN) Masters
Diploma of Public Health PhD
Other: _____

7. Identify any additional formal education other than nursing since graduating:
Be Specific: _____

8. Tell me about the hospital you work at now:
A. Rural OR Urban/City OR Outpost Area
B. Teaching Hospital OR Non-Teaching Hospital
C. # of Beds in Hospital: _____ # of beds in ED: _____

9. Since I have graduated I have worked in the Emergency Department:
(actual time) _____ years, _____ months.

Appendix C5

10. Other clinical areas worked: _____

11. Have you received suicide prevention training in the past? YES NO

If yes:

A. What type of training did you receive (check all that apply)

lecture seminar / workshop video
brochures role-playing Other: _____

B. When did you receive training? _____(month) _____(year)

C. Why did you receive training?

basic training in nursing program crisis line / volunteer work
personal interest / experience professional experience
Other: _____

D. What type of information was taught? _____

12. In your ED do you have auxiliary personnel or psychiatric experts on staff in the ED that are part of the team that care for patients who evidence parasuicidal behaviour? YES NO

If yes, please identify: (circle those that apply)

CNS-Mental Health Pastoral Care Psychiatrist
Social Workers Other: (specify) _____

13. In your ED experience, how would you rate your exposure to suicide or parasuicide patients?

Very little 1 2 3 4 5 6 7 8 9 10 Frequent

14. How would you rate your ability to deal with suicide / parasuicide patients?

Novice 1 2 3 4 5 6 7 8 9 10 Expert

15. Have you ever known someone personally who COMPLETED suicide?

YES NO total #: _____

If yes, identify/list your relationship to the individual(s):

Rate the closest (emotionally) you have been to the individual who committed suicide (if more than one, rate each one individually)

Not close at all 1 2 3 4 5 6 7 8 9 10 very close

Appendix C6

16. Have you ever known someone personally who ATTEMPTED suicide?

YES NO total #: _____

If yes, identify/list your relationship to the individual(s):

Rate the closest (emotionally) you have been to the individual who attempted suicide (if more than one, rate each one individually)

Not close at all 1 2 3 4 5 6 7 8 9 10 very close

17. Has anyone you knew personally ever spoken to you about killing him- or herself?

YES NO total #: _____

If yes, identify/list your relationship to the individual(s):

Rate the closest (emotionally) you have been to the individual who attempted suicide (if more than one, rate each one individually)

Not close at all 1 2 3 4 5 6 7 8 9 10 very close

18. IF YOU ANSWERED YES TO ANY OF QUESTIONS 14, 15, AND/OR 16, PLEASE ANSWER THE FOLLOWING: (Be as forthcoming as you can).

What effect has this had on you?

How has it affected your knowledge of parasuicide?

What effect has it had on your attitude towards parasuicide individuals?

(Please write as much as you are able to, or wish to. Feel free to add pages as needed.)

Appendix D1

Suicide Opinion Questionnaire (SOQ) (Domino, Moore, Westlake & Gibson's, 1982)

This is not a test but a survey of your opinions; there are no right or wrong answers, only your honest opinion counts. For each item indicate whether you:

SA-strongly agree; A – agree; ? - are undecided; D – disagree; SD - strongly disagree

1. Most persons who attempt suicide are lonely and depressed.	SA	A	?	D	SD
2. Almost everyone has at one time or another thought about suicide.	SA	A	?	D	SD
5. Suicide prevention centers actually infringe on a person's right to take his life.	SA	A	?	D	SD
6. Most suicides are triggered by arguments with a spouse.	SA	A	?	D	SD
7. The higher incidence of suicide is due to the lesser influence of religion.	SA	A	?	D	SD
8. Many suicide notes reveal substantial anger towards the world.	SA	A	?	D	SD
9. I would feel ashamed if a member of my family committed suicide.	SA	A	?	D	SD
10. Most suicide attempts are impulsive in nature.	SA	A	?	D	SD
11. Many suicides are the result of the desire of the victim to "get even" with someone.	SA	A	?	D	SD
13. People with incurable diseases should be allowed to commit suicide in a dignified manner.	SA	A	?	D	SD
14. Those who threaten to commit suicide rarely do so.	SA	A	?	D	SD
17. Suicide is a leading cause of death in Canada.	SA	A	?	D	SD
18. Suicide is an acceptable means to end an incurable illness.	SA	A	?	D	SD
19. People who commit suicide are usually mentally ill.	SA	A	?	D	SD
20. Some people commit suicide as an act of self-punishment.	SA	A	?	D	SD
21. The feeling of despair reflected in the act of suicide is contrary to the teachings of most major religions.	SA	A	?	D	SD
24. John Doe, age 45, has just committed suicide. An investigation will probably reveal that he has considered suicide for quite a few years.	SA	A	?	D	SD
25. Suicide is acceptable for aged and infirm persons.	SA	A	?	D	SD
29. Suicide is clear evidence that man has a basically aggressive and destructive nature.	SA	A	?	D	SD
31. Most people who try to kill themselves don't really want to die.	SA	A	?	D	SD
32. Suicide happens without warning.	SA	A	?	D	SD
35. A person who tried to commit suicide is not really responsible for those actions.	SA	A	?	D	SD
36. About 75% of those who successfully commit suicide have attempted suicide at least once before.	SA	A	?	D	SD
37. It's rare for someone who is thinking about suicide to be dissuaded by a "friendly ear".	SA	A	?	D	SD
38. People who commit suicide must have a weak personality structure.	SA	A	?	D	SD
41. A large percentage of suicide victims come from broken homes.	SA	A	?	D	SD
43. People who set themselves on fire to call attention to some political or religious issue are mentally unbalanced.	SA	A	?	D	SD
45. Most people who commit suicide do not believe in an afterlife.	SA	A	?	D	SD
47. Suicide attempters are typically trying to get even with someone.	SA	A	?	D	SD
48. Once a person is suicidal, he/she is suicidal forever.	SA	A	?	D	SD
49. There may be situations where the only reasonable resolution is suicide.	SA	A	?	D	SD
50. People should be prevented from committing suicide since most are not acting rationally at the time.	SA	A	?	D	SD

Appendix D2

54. Prisoners in jail who attempt suicide are simply trying to get better living conditions.	SA	A	?	D	SD
55. Suicides among young people (e.g. college students) are particularly puzzling since they have everything to live for.	SA	A	?	D	SD
56. Once a person survives a suicide attempt, the probability of his/her trying again is minimal.	SA	A	?	D	SD
57. In general, suicide is an evil act not to be condoned.	SA	A	?	D	SD
58. People who attempt suicide and live should be required to undertake therapy to understand their inner motivation.	SA	A	?	D	SD
59. Suicide is a normal behaviour.	SA	A	?	D	SD
61. If a culture were to allow the open expression of feelings like anger and shame, the suicide rate would decrease substantially.	SA	A	?	D	SD
62. From an evolutionary point of view, suicide is a natural means by which the less mentally fit are eliminated.	SA	A	?	D	SD
63. Suicide attempters who use public places (such as a bridge or tall building) are more interested in getting attention.	SA	A	?	D	SD
65. External factors, like lack of money, are a major reason for suicide.	SA	A	?	D	SD
67. Sometimes suicide is the only escape from life's problems.	SA	A	?	D	SD
68. Suicide is a very serious moral transgression.	SA	A	?	D	SD
70. If someone wants to commit suicide, it is their business and we should not interfere.	SA	A	?	D	SD
71. A suicide attempt is essentially a "cry for help".	SA	A	?	D	SD
74. The most frequent message in suicide notes is of loneliness.	SA	A	?	D	SD
75. Usually, relatives of a suicide victim had no idea what was about to happen.	SA	A	?	D	SD
78. Suicide goes against the laws of God and/or nature.	SA	A	?	D	SD
79. We should have "suicide clinics" where people who want to die could do so in a painless and private manner.	SA	A	?	D	SD
80. Those people who attempt suicide are usually trying to get sympathy from others.	SA	A	?	D	SD
81. People who commit suicide lack solid religious convictions.	SA	A	?	D	SD
82. People with no roots or family ties are more likely to attempt suicide.	SA	A	?	D	SD
83. People who bungle suicide attempts really did not intend to die in the first place.	SA	A	?	D	SD
85. Potentially, every one of us can be a suicide victim.	SA	A	?	D	SD
87. People who die by suicide should not be buried in the same cemetery as those who die naturally.	SA	A	?	D	SD
88. Most people who commit suicide do not believe in God.	SA	A	?	D	SD
90. Suicide attempters are, as individuals, more rigid and less flexible than non-attempters.	SA	A	?	D	SD
91. The large majority of suicide attempts result in death.	SA	A	?	D	SD
93. People who attempt suicide are, as a group, less religious.	SA	A	?	D	SD
94. As a group, people who commit suicide experienced disturbed family relationships when they were young.	SA	A	?	D	SD
95. People do not have the right to take their own lives.	SA	A	?	D	SD
96. Most people who attempt suicide fail in their attempts.	SA	A	?	D	SD
98. Individuals who are depressed are more likely to commit suicide.	SA	A	?	D	SD

Appendix D3

Suicide Opinion Questionnaire (SOQ) - The Eight Clinical Scales

8 Clinical Scales – Scoring & Design (Domino, MacGregor, & Hannah, 1988-89)

(SA-strongly agree; A – agree; ? - are undecided; D – disagree; SD - strongly disagree)

Clinical Scale 1. Suicide reflects mental illness (13 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1

Item #: 1, 19, 35, 38, 41, 43, 58, 74, 82, 90, 98

SA = 1 A = 2 ? = 3 D = 4 SD = 5

Item #: 65

Clinical Scale 2. Suicide threats are “not real” – i.e. a cry for help (12 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1

Item #: 14, 31, 54, 56, 63, 71, 80, 83, 96

SA = 1 A = 2 ? = 3 D = 4 SD = 5

Item #: 17, 37, 91

Clinical Scale 3. The right to die (8 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1

Item #: 5, 13, 18, 25, 70, 79

SA = 1 A = 2 ? = 3 D = 4 SD = 5

Item #: 50, 95

Clinical Scale 4. Importance of religion (7 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1

Item #: 7, 21, 45, 78, 81, 88, 93

Clinical Scale 5. Impulsivity (7 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1

Item #: 6, 10, 32, 36, 75

SA = 1 A = 2 ? = 3 D = 4 SD = 5

Item #: 24, 48

Clinical Scale 6. Suicide is normal (7 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1

Item #: 2, 49, 59, 62, 67, 85

SA = 1 A = 2 ? = 3 D = 4 SD = 5

Item #: 55

Clinical Scale 7. Suicide reflects aggression/anger (6 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1

Item #: 8, 11, 20, 29, 47, 61

Clinical Scale 8. Suicide is morally bad (4 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1

Item #: 9, 57, 68, 87

Appendix D4

Suicide Opinion Questionnaire (SOQ) – The Five-Factor Interpretative Model

**Five-Factor Interpretative Model used the same scoring of items as the Eight Clinical Scales
(Personal Communication, , 2001)**

(SA-strongly agree; A – agree; ? - are undecided; D – disagree; SD - strongly disagree)

Factor 1. Acceptability (11 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1
Item #: 10, 13, 18, 33, 36, 44, 51, 60, 65, 73

Factor 2. Social Disintegration (11 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1
Item #: 5, 27, 31, 32, 50, 62, 67, 69, 70, 74

Factor 3. Emotional Perturbation (11 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1
Item #: 1, 15, 24, 28, 29, 46, 58, 79, 80, 81, 82

Factor 4. Perceived Factual Knowledge (10 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1
Item #: 4, 8, 21, 22, 38, 41, 45, 57

SA = 1 A = 2 ? = 3 D = 4 SD = 5
Item #: 25, 72

Factor 5. Personal Defect (12 items)

SA = 5 A = 4 ? = 3 D = 2 SD = 1
Item #: 7, 14, 19, 26, 30, 47, 48, 61, 71, 78

SA = 1 A = 2 ? = 3 D = 4 SD = 5
Item #: 35, 40

VITA AUCTORIS

Kim M. Watson is currently an Emergency Department (ED) Educator at Bon Secours Cottage Health Services in Grosse Pointe, Michigan, U.S.A. She received a Diploma of Nursing in 1976 from St. Clair College of Applied Arts and Technology, and subsequently a Diploma of Public Health Nursing in 1987 and a B.Sc.N. in 1989, both from the University of Windsor.

The first five years of her career was as a staff nurse in various pediatric settings, including Children's Hospital of Michigan, Detroit, Michigan; Metropolitan Hospital, Windsor, Ontario, and The Hospital for Sick Children in Toronto, Ontario. In 1981 her ED career commenced at Metropolitan Hospital (presently Windsor Regional Hospital), Windsor, Ontario. Subsequently she has worked in a variety of specialties; such as a Clinical / Classroom Instructor at St. Clair College and the University of Windsor in pediatric and medical/surgical nursing; as a staff nurse in the ED at Hutzel Hospital, Detroit, Michigan; a public health nurse at the Windsor-Essex County Health Unit, Windsor, Ontario; and as a staff nurse in the PICU at Children's Hospital of Michigan. Ms. Watson has been in her present position since January of 1999.

In support of her M.Sc.N. studies, the Registered Nurses' Association of Ontario Foundation awarded Ms. Watson the Prenatal and Parenthood Education Services Award in 1998 and 2000. She received a Thesis Research Grant from the School of Nursing, Graduate Studies, from the University of Windsor in 2000. From the Bon Secours Foundation, Grosse Pointe, Michigan she was awarded the Audrey N. Kottenstette Healthcare Scholarship and the Francys D. Marco Scholarship Award for the continuation of her graduate studies in 1999.