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Hospice Nurse Perceptions of Constipation and Attitudes Towards Abdominal Massage

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Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage

by

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A thesis submitted to the faculty of
Gardner-Webb University School of Nursing
in partial fulfillment of the requirements for the
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Abstract

Constipation is a prevalent symptom in the hospice population, negatively effecting quality of life for patients. Constipation is frequently overlooked, undiagnosed, and untreated by healthcare providers. The role of the hospice nurse is ideal for managing the symptom of constipation with traditional and alternative therapies. Literature review reveals very limited research on constipation and hospice patients, and alternative therapies for constipation. No research was found regarding nurse attitudes towards alternative therapies, such as abdominal massage for constipation. This research study tested the following hypothesis: Hospice nurses perceive constipation as significantly impacting the quality of life for the hospice patient, and hospice nurses have a positive attitude towards abdominal massage as an alternative intervention for constipation. A descriptive survey, guided by the theoretical framework of Jean Watson's philosophy of science and caring, was conducted using a convenience sample of hospice nurses. The results indicated that hospice nurses do perceive constipation as significantly impacting quality of life; and, hospice nurses have an open attitude towards abdominal massage. It is concluded that hospice nurses would benefit from education regarding abdominal massage as an alternative intervention for constipation. The implications of this study have the potential to impact nursing practice and the quality of life for hospice patients and their families.

Keywords: Constipation, alternative therapies, hospice

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Chapter I

Introduction

Statement of Problem

Constipation is a common problem in many healthcare settings. An even higher frequency of constipation occurs in the hospice population, where the risk factors of decreased mobility, increased age, disease process, treatment of disease, and terminal illness are more prevalent (Hospice and Palliative Nurses Association, 2009-2012, n.d.). Constipation generally responds well to nursing intervention; however constipation is often unrecognized and undiagnosed by healthcare providers, resulting in a lack of nursing intervention for prevention and treatment of constipation (Hospice and Palliative Nurses Association, 2009-2012, n.d.). The nurse's role is ideal for the assessment, prevention, and treatment of constipation (Peate, 2003). Very limited nursing research has focused on constipation and hospice patients; even fewer studies have been conducted to examine the effects of non-pharmacologic therapies, such as abdominal massage, on constipation in the hospice patient. Few studies were identified that examined nurses' knowledge and perceptions of constipation. No studies were found that examined hospice nurses' perceptions and attitudes towards non-pharmacologic interventions for prevention and treatment of constipation.

Purpose of the Study

The purpose of this research study, *Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage*, was first to examine the hospice nurses' perception of the effects of constipation on quality of life for the hospice patient. Second, this study examined the hospice nurses' attitude towards abdominal massage as an

alternative intervention for constipation in the hospice patient. The goals of the study were to determine if hospice nurses perceive that constipation significantly affects quality of life, and to determine if hospice nurses have a positive attitude towards abdominal massage as an intervention for constipation.

Background and Need

The problem of constipation for this research study was identified through exploration of the Hospice and Palliative Nurses 2009-2012 Research Agenda, and investigation of their stated priority areas for nursing research. Historically, the attention and funding of hospice research has focused primarily on pain assessment and management. Minimal research has been conducted involving the symptom of constipation, although constipation is a prevalent symptom with a high burden detrimental to the quality of life of terminally ill patients (Hospice and Palliative Nurses Association, 2009-2012, n.d.). Notably, the symptom of constipation was one of the three areas of focus for nursing research, and is a research priority for the Hospice and Palliative Nurses Association (Hospice and Palliative Nurses Association 2009-2012, n.d.). More specifically, the Hospice and Palliative Nurses Association requests more research on non-pharmacologic therapies, such as abdominal massage for the prevention and treatment of constipation. The background literature clearly shows a sizeable void of nursing research in this area, and the few studies that have been conducted all acknowledge the need for further research. Soden, Vincent, Craske, Lucas, and Ashley (2004) concluded her randomized controlled trial of aromatherapy in a hospice setting by stating, "...larger studies of good methodological quality are needed to demonstrate the effectiveness of these therapies in the palliative care population" (p. 91). Dunwoody,

Smyth, and Davidson's (2002) semi-structured interview study on aromatherapy massage in palliative care concludes "It is hoped that this small-scale study will provide impetus for further qualitative research on patients' experiences of complementary therapies in palliative care" (p. 504). It is evident through the body of nursing research and through the research priority of the Hospice and Palliative Nurse Association that this is a needed study.

Theoretical Framework

This research study was guided by the theoretical framework of Jean Watson's Philosophy of Science and Caring. The 10 major concepts of this theory, coined carative factors by Watson, are as follows: formation of a humanistic-altruistic system of values; instillation of faith-hope; cultivation of sensitivity to self and others; development of a helping-trust relationship; promotion and acceptance of the expression of positive and negative feelings; systematic use of the scientific problem-solving method for decision making; promotion of interpersonal teaching-learning; provision for supportive, protective, and corrective mental, physical, sociocultural, and spiritual environment; assistance with gratification of human needs; and allowance for existential-phenomenological forces (Neil & Tomey, 2006). According to Watson, "Each carative factor describes the caring process of how a patient attains, or maintains health or dies a peaceful death" (Neil & Tomey, 2006, p. 99). The caring process should be obvious in all nursing interactions. It is markedly essential in hospice, as nurses' focus on two primary goals; quality of life for patients and families, and a peaceful death.

The three concepts or carative factors of Watson's theory, closely linked to the study are: *the development of a helping-trust relationship, systematic use of the scientific*

problem-solving method for decision making, and *assistance with gratification of human needs* (See figure 1). The carative factor of *development of a helping-trust relationship* is further described as the caritas process of “Developing and sustaining a helping trusting authentic caring relationship” (Neil & Tomey, 2006, p. 104). *Development of a helping-trust relationship* between nurse and patient is the essential primary step towards interventional abdominal massage. The carative factor of *systematic use of the scientific problem-solving method for decision making* was refined and is further described as the caritas process of “Creative use of self and all ways of knowing as part of the caring process; to engage in the artistry of caring-healing process” (Neil & Tomey, 2006, p. 104). *Systematic use of the scientific problem-solving method for decision making* is logical problem-solving and decision making, leading to the action of abdominal massage intervention by the hospice nurse. Finally, *the assistance with gratification of human needs* is further described as the caritas process of “Assisting with basic needs, with an intentional caring consciousness, administering ‘human care essentials’, which potentiate alignment of mindbodyspirit, wholeness, and unity of being in all aspects of care” (Neil & Tomey, 2006, p. 104). The desired result of the intervention of abdominal massage by the hospice nurse is *the assistance with gratification of human needs*. The goal of abdominal massage is to assist in the prevention and resolution of constipation, and to maintain regular bowel movements for the hospice patient. For the hypothesis of this study to prove true, the hospice nurse must possess the three carative factors outlined above.

CTE Diagram

Watson's Philosophy of Science and Caring

Concepts

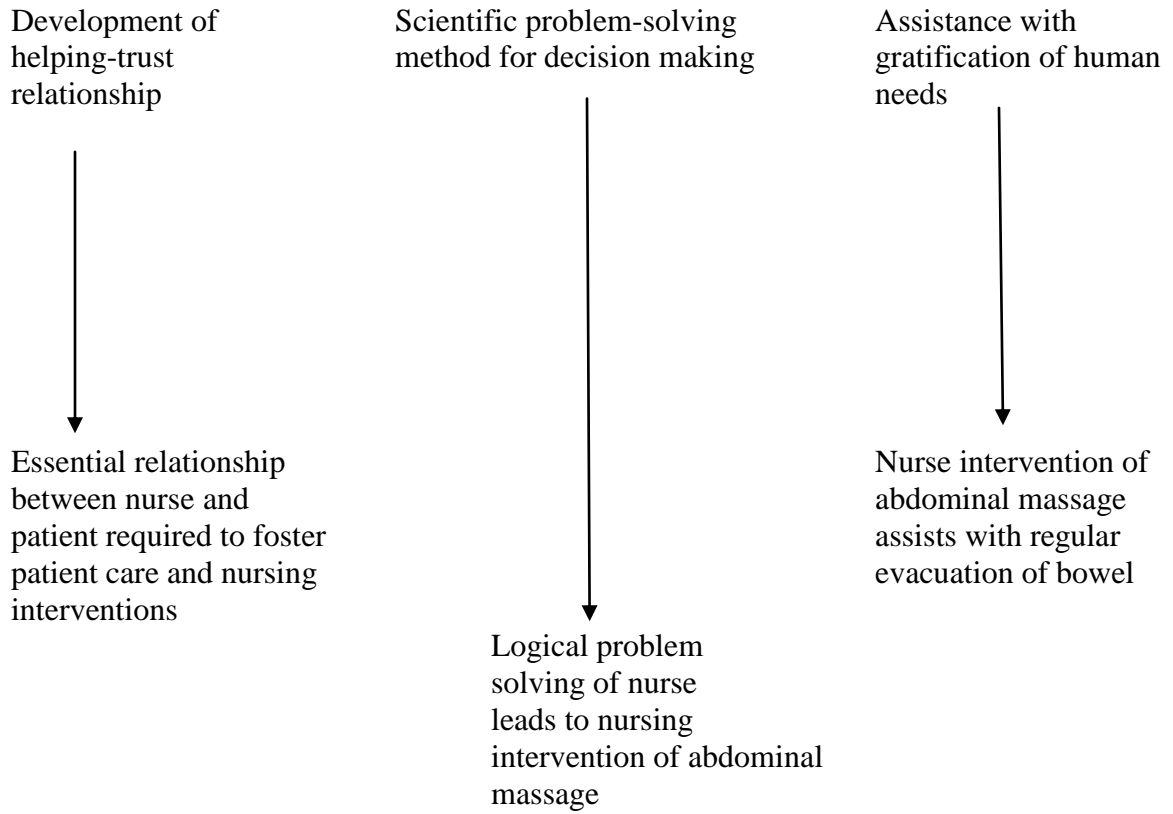


Figure 1. *CTE Diagram, Watson's Philosophy of Science and Caring*

Significance

This study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, is significant to the nursing community to provide a foundation for further research regarding abdominal massage as a complementary alternative therapy for constipation in the hospice population. The assessment of hospice nurse attitudes towards abdominal massage may act as a catalyst and guide further vital quantitative research on the effects of abdominal massage in the hospice population, adding to the nursing body of knowledge. The quality of life for hospice patients and families has the potential to be positively impacted through this research study.

Hypothesis

The hypothesis for this research study was as follows: Hospice nurses recognize constipation as significantly impacting the quality of life for the hospice patient and hospice nurses have a positive attitude towards abdominal massage as an intervention for constipation in the hospice patient.

Conclusion

This research study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, is relevant and significant. Based on Watson's philosophy of science and caring, it is hoped that as a result of this study, knowledge will be gained regarding hospice nurse perceptions of constipation and attitudes towards abdominal massage. Potential far-reaching implications may exist for clinical practice and outcomes.

Chapter II

Literature Review

Introduction

Constipation is a common problem in all healthcare settings. This research study, *Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage*, was conducted to examine nurse perceptions about the effects of constipation on the quality of life for the hospice patient, and nurse attitudes towards abdominal massage as an intervention for constipation.

Review of the Literature

An initial literature review was conducted to evaluate the current research on abdominal massage as an intervention for constipation in the hospice patient. Due to the limited number of results generated in the specific search for abdominal massage and constipation in the hospice patient, the literature review was expanded to include general massage and symptom management, constipation, and nurse attitudes towards constipation and massage. The Cumulative Index for Nursing and Allied Health Literature (CINAHL) database was accessed to complete the review, and a ten year time-frame (2002 to 2012) guided the literature review. The literature review was divided into the following four categories; Abdominal Massage and Constipation, Massage and Symptom Management, Constipation Knowledge and Perceptions, and Opioids and Constipation. These areas assist in addressing the designated theory and the purpose of the proposed research study.

Abdominal Massage and Constipation

A qualitative descriptive study was conducted by Lamas, Graneheim, and Jacobsson, (2011) to examine the experiences of receiving abdominal massage for constipation. Nine adults receiving abdominal massage for constipation participated in individual semi-structured interviews regarding their experiences. The results of the study identified four themes associated with the experience of abdominal massage: being on one's guard, becoming embraced by safe hands, being touched physically and emotionally, and feeling vulnerable (Lamas et al., 2011). All participants described the experience as physically pleasant, improving bowel function, and emotionally pleasant. The results of the study highlight the necessity of nurse awareness and respect of the intimacy of abdominal massage (Lamas et al., 2011). The limitation of the study noted by the researchers is the small sample size.

Researchers Lamas, Lindholm, Engstrom, and Jacobsson (2010) conducted a randomized controlled study to examine the impact of abdominal massage on quality of life for people with constipation, as well as to determine if abdominal massage was a cost-effective intervention for constipation. Sixty participants were put into either a control group or an intervention group. The control group continued current medical therapy for constipation; the intervention group received daily abdominal massage and laxative intake changed or stopped. The EQ-5D classification system was used to collect data on health-related quality of life and cost-effectiveness. The study concluded that participants receiving abdominal massage had a statistically significant increase in health-related quality of life, and also indicated that abdominal massage may be a cost-effective treatment for constipation (Lamas et al., 2010). Abdominal massage should be

considered for constipation management, and further study is recommended on the cost-effectiveness of abdominal massage in a clinical setting (Lamas et al., 2010).

Limitations of the study were no recommended follow-up after treatment, and the blinding approach was not used in regards to the massage intervention (Lamas et al., 2010).

A randomized controlled trial was conducted by Lamas, Lindholm, Stenlund, Engstrom, and Jacobsson (2009) to investigate the effects of regular abdominal massage on gastrointestinal activity and laxative intake on people with constipation. Sixty participants were divided into two groups, massage group and control group. The massage group received a daily 15 minute massage for eight weeks, and was instructed to decrease laxative intake as needed. The control group continued their medical regimen for constipation without massage. The Gastrointestinal Symptom Rating Scale (GSRS) was used to collect data about perceived symptoms (Lamas et al., 2009). Participants kept detailed notes about their bowel movements. Overall, abdominal massage significantly reduced the severity of gastrointestinal symptoms reported by participants ($p=.003$), as well as significantly increasing the number of bowel movements compared to the control group ($p=.019$) (Lamas et al., 2009). There was no decrease in laxative intake for either group. These findings suggest that abdominal massage may complement laxative use for constipation management, but does not suggest that massage is an alternative to medical therapy. Limitations of the study include the brief timeframe of the study, the number of days that were included in the laxative intake protocol, and lack of male participants of the study (Lamas et al., 2009).

Moss, Smith, Wharton, and Hames (2007) used a single case study design to investigate abdominal massage as a treatment for idiopathic constipation in children with learning disabilities. One boy and four girls, ages 4 to 9 years, participated in the study and were chosen from a school for children with severe learning disabilities. Each child had profound developmental delays; all had difficulty walking, none could speak in phrases or sentences, and the only self-help skill present was the ability of four to self-feed from a spoon (Moss et al., 2007). Detailed records of stool type, other artificial elimination aids, and abdominal massage were made prior to the trial and during the intervention. Each child received abdominal massage twice daily by a trained person. Qualitative interviews were done at the end of the trial with the parents. The results of the study showed no statistical increase in stool frequency with massage, but some evidence of improvement in stool consistency (Moss et al., 2007). More research with a larger sample size is recommended. Limitations of the study include small sample size, and the inability to generalize to a broader population (Moss et al., 2007).

Massage and Symptom Management

A systematic review using Cochrane principles was performed by Wilkinson, Barnes, and Storey (2008) to assess evidence of the effectiveness of massage in oncology patients for improving physical and psychological well-being. The researchers did a comprehensive search of electronic databases for trials that met the following inclusion criteria: randomized controlled trials with adult cancer patients in a healthcare setting; any massage given by a licensed therapist that included tissue manipulation; outcomes must be patient-reported and about physical/psychological symptoms and quality of life; reliable and valid assessment tools used in the study (Wilkinson et al., 2008). The search

resulted in 67 relevant intervention studies. The results of the literature review were inconclusive with mixed findings regarding the effect of massage on symptoms and quality of life. The trials reviewed had limitations: longer follow-up periods are necessary to fully comprehend the outcomes, trials with larger samples would be helpful to generate evidence, and the variety of countries where trials were conducted makes it difficult to generalize the findings of the studies (Wilkinson et al., 2008). It is concluded that more methodologically high quality trials are necessary to determine if massage is an effective intervention for improving the quality of life for cancer patients.

A multisite, randomized clinical trial was conducted by Kutner et al. (2008) to compare the effectiveness of massage therapy versus simple touch for improving pain and mood in advanced cancer patients. The sample population was composed of 380 adults with the inclusion criteria of advanced cancer with moderate to severe pain (Kutner et al., 2008). Ninety percent of the participants were hospice patients. Participants were randomly assigned to either the treatment group, which received six 30 minute massages over a two week period; or the control group, which received six simple-touch sessions over a two week period. The Memorial Pain Assessment Card, the Brief Pain Inventory, the McGill Quality of Life Questionnaire, and the Memorial Symptom Assessment Scale were the tools used to measure pain, mood, and symptom distress (Kutner et al., 2008). Personal interviewers administered the questionnaires for data collection. The results of the study show that both the massage and the simple-touch groups had statistically significant improvement in pain and mood, with massage being greater. However, the improvements were not clinically significant or sustainable. The conclusion drawn is that massage may be useful for immediate symptom relief for

advanced cancer patients, but other more effective pain management strategies are also necessary at end of life (Kutner et al., 2008). Limitations in the study include possible reporting bias, inability to generalize results due to characteristics of sample population, loss of follow up due to decline or death of sample population, and the absence of a usual care control group (Kutner et al., 2008).

Sturgeon, Wetta-Hall, Hart, Good, and Dakhil (2009) used pre/post intervention assessment design to evaluate the effects of therapeutic massage on quality of life for patients being treated for breast cancer. Fifty-one female breast cancer patients participated in this trial, and each received one 30 minute massage weekly for three consecutive weeks (Sturgeon et al., 2009). The instruments used in this study to measure quality of life were the State-Trait Anxiety Inventory, the Visual Analogue Scale, the Rhodes Index of Nausea, Vomiting, and Retching Scale, the Snyder-Halpren Verran Sleep Scale, and the Functional Assessment of Cancer Therapy, Version B (Sturgeon et al., 2009). The results of the study showed improvement in perceived quality of life on half of the scales used for measurement (Sturgeon et al., 2009). The study suggests that therapeutic massage may be an effective coping mechanism for breast cancer patients undergoing treatment, and could improve the quality of life for breast cancer patients and survivors (Sturgeon et al., 2009). Limitations of the study are the small sample size, the lack of a control group, and possible self-reporting bias (Sturgeon et al., 2009).

Soden et al. (2004) compared the effects of aromatherapy massage versus massage alone on symptoms, both physical and psychological, of advanced cancer patients, using a randomized controlled trial. Forty-two patients from three palliative care units were recruited for the trial over a two year period, and 36 completed the study.

Participants were randomly divided into three groups for the study: those receiving a 30 minute massage with aromatherapy weekly for four weeks; those receiving a 30 minute massage (no aromatherapy) weekly for four weeks; and control group with no massage (Soden et al., 2004). All participants completed measurement scales at baseline assessment and at a final assessment after week four. The measurement scales for physical and psychological symptoms consisted of “a VAS of pain intensity and a Modified Tursky Pain Descriptors Scale; the Verran and Snyder-Halpern (VSH) sleep scale; the Hospital Anxiety and Depression (HAD) scale; and the Rotterdam Symptom Checklist (RSCL)” (Soden et al., 2004, p.88). The results of the study showed no statistically significant changes or improvement in the baseline assessment and the final assessment between the three groups in regards to pain, the HAD scale, and the RSCL. There was a statistically significant improvement in the VSH sleep scale noted for the massage alone and massage with aromatherapy groups ($p=0.02$ and $p=0.03$). The researchers concluded that aromatherapy massage may have potential to improve sleep quality for patients with advanced cancer, and recommend further research to confirm these results (Soden et al., 2004). Limitations of the study include a small sample size, inability of some participants to complete all questionnaires and treatments, and the research setting of massage interventions (Soden et al., 2004).

Dunwoody, Smyth, and Davidson (2002) used a focus group interview design to explore cancer patients’ experiences of aromatherapy massage. Thirty participants with metastatic cancer, who had completed a course of aromatherapy within the last month, were invited to discuss their experiences of aromatherapy. Eleven patients completed the study. A moderator used a semi-structure interview to ask open-ended questions about

the subjective aromatherapy experiences for each patient. The moderator used questions as a guide to keep discussion focused on the positive and negative aspects of the treatments and any benefits or changes they would recommend (Dunwoody et al., 2002). The eight themes that emerged from the transcripts of the interview were: de-stressing effects, the role of counselor for the therapist, aromatherapy as a reward, empowerment, communication through touch, security of context, preconceived perceptions, and negative aspects of aromatherapy (Dunwoody et al., 2002). The researchers concluded that aromatherapy appeared to have physical and psychological benefits for cancer patients, and are hopeful that this study will ignite more qualitative research on patients' experiences of complementary therapies in palliative care (Dunwoody et al., 2002). Limitations of the study are the small sample size of the study.

Downey, Engelberg, Standish, Kozak, and Lafferty (2009) conducted a quantitative clinical trial to determine if massage and guided meditation improved quality of life of hospice patients significantly enough to warrant their standardization into end of life care. One hundred eight patients participated in a clinical trial to test the effectiveness of massage and guide meditation. The patients rated their preferred treatment, and then were randomly assigned massage, guided meditation, or a friendly visit by a hospice volunteer. One hundred eight study partners were interviewed after the patient's death to examine their perceived effect of the treatment on the patient's quality of life and on the study partner's quality of life. The results of the study indicated that massage may improve quality of life for terminally-ill patients. The study partner's quality of life was positively affected when the patient was assigned their treatment of choice. Limitations of the study include a small number of participants from the same

geographical area, and information obtained from the patient's representative may not be congruent with the patient's perceptions (Downey et al., 2009).

Constipation Knowledge and Perceptions

Marsh and Sweeney (2008) conducted a quantitative descriptive research study to assess the knowledge of constipation of Registered Nurses' (RN) within a healthcare provider setting for intellectually disabled. A sample size of 98 RNs participated in completing the Bowel Management Survey (BMS). The survey measured knowledge related to gender and constipation, medications and constipation, medical conditions and constipation, and signs and symptoms of constipation (Marsh & Sweeney, 2008). The results of the study were agreed with previous research, indicating a knowledge deficit in RNs working with the intellectually disabled (Marsh & Sweeney, 2008). Limitations of the study were the purposive and small sample size, and absence of demographic data of the client group (Marsh & Sweeney, 2008).

A secondary data analysis of national prescribing data in England was conducted by researchers Davis and Drennan (2007) to compare the prescribing behaviors of nurses and general practitioners (GP) with regards to constipation. Data was collected from the Prescribing Analysis and Cost Tabulation (PACT), a national data set, providing information on all community nurse and GP prescriptions written for the medical management of constipation from July 2004 to July 2005 (Davis & Drennan, 2007). The results of data analysis showed that only 16.6% of all nurse prescribers prescribed medication for constipation, while 83% of all GPs prescribed medication for constipation (Davis & Drennan, 2007). Three possible explanations for these findings given by the researchers are: a limited number of nurse prescribers, nurses choosing not to exercise

their prescriptive authority, and nurses managing constipation with alternative interventions (Davis & Drennan, 2007). Limitations of the study are lack of generalizability, inability to link data to clinical decision-making, and lack of patient perspective (Davis & Drennan, 2007).

Researchers Richmond and Devlin (2003) used a non-experimental survey design to assess nurses' knowledge regarding prevention and management of constipation. A convenience sample of 131 hospital nurses from various specialties completed the survey over a four to six week period. Overall, 59% of the answers on the survey were correct. Differences were noted between nursing specialties, with the highest score of 71% correct responses. The researchers identified gaps in nurses' knowledge of constipation in all specialties, and recommend increased education for all nurses in bowel care (Richmond & Devlin, 2003). Limitations to the study are that a variable for years of nursing experience was neglected in the data collection and analysis.

Friedrichsen and Erichsen (2006) conducted a study to examine the lived experience of constipation for cancer patients in palliative hospital-based home care. Semi-structure interviews were used, along with a qualitative, phenomenological approach. Purposeful selection was used to obtain a sample population of eleven cancer patients, all of whom were treated with opioids and laxatives. An interview guide was utilized for semi-structured interviews that occurred in the patient homes. Each patient was asked about their experience with constipation and the effects on their daily life. Three themes emerged from the interviews: bodily suffering, mental preoccupation and a reminder of death, and avoidance and social isolation (Friedrichsen & Erichsen, 2006). The researchers concluded that the lived experience of constipation for cancer patients in

palliative care is related to lower quality of life. The limitations of this study include the small sample size, and results that may not be generalized to other settings.

Opioids and Constipation

Weschules et al. (2006) conducted a pharmacy-based retrospective analysis of hospice patients who were prescribed one of three sustained-release opioid medications: sustained release morphine, oxycodone, or transdermal fentanyl patch. The outcomes of pain, constipation, and patient ability to communicate with caregivers were assessed. Additional variable analyzed included gender, terminal diagnosis, and median length of stay. Computerized pharmacy records were accessed for all hospice patients admitted to the excelleRx pharmacy database and prescribed a sustained-release opioid, with a sample size of 12,000 patients. The results of the study showed no significant difference between the three sustained-release opioids and severity of pain and constipation. There was a decreased ability to communicate with caregivers for patients who were prescribed transdermal fentanyl (Weschules et al., 2006). The limitations to the study include: the minimum data set (MDS) information was an average calculation of all collected data and may not give an accurate picture of pain control, no standard number of assessments was used to include a patient in the study, and pain and constipation were patient reported values, while ability to communicate was reported by the nurse (Weschules et al., 2006).

Summary

This literature review generated multiple studies involving constipation and multiple studies involving massage. Very limited research was found on the effects of abdominal massage on constipation, with all studies recommending further research. A significant gap in current nursing research is obvious. No studies were found in the

literature review that examined nurse attitudes towards abdominal massage, identifying a clear need for this research study. Testing the hypothesis, hospice nurses recognize constipation as significantly impacting the quality of life for the hospice patient and hospice nurses have a positive attitude towards abdominal massage as an intervention for constipation in the hospice patient, may have significant implications for nursing practice.

Chapter III

Methodology

Introduction

This research study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, was conducted to examine nurse perceptions about the impact of constipation on the quality of life for the hospice patient, and nurse attitudes towards abdominal massage as an alternative intervention for constipation.

Setting

The setting for this descriptive study survey consisted of two non-profit hospice agencies located in South Carolina. Both hospices serve patients in the home, assisted-living and skilled nurse facility settings. Each hospice agency has a free-standing hospice house, to manage the general inpatient needs of hospice patients with symptom management issues.

Sample Population

The sample population for this study was a convenience sample of hospice nurses who were employed in the Upstate of South Carolina as home hospice nurses or facility hospice nurses. Permission was obtained from the director of both hospice agencies for participation in the survey prior to the study. This researcher delivered a total of 69 surveys, including informed consent, to the participating hospice agencies. The decision was made to hand-deliver a paper survey, instead of utilizing an electronic survey, with the purpose of increasing nurse participation. The completed number of surveys was 44 for a sample population of $n=44$.

Instruments

After extensive review, an appropriate tool to assess hospice nurse towards constipation and abdominal massage was not identified. A 13 item 5-point Likert survey was developed to measure nurse perceptions of constipation on quality of life, and attitudes towards abdominal massage (see Appendix A). The Likert scale is a unidimensional scaling tool used to measure abstract concepts, such as attitude (Trochim, 2006). Developed in 1932 by psychologist Rensis Likert, the Likert scale is an ordinal scale that measures level of agreement or disagreement (McLeod, 2008). Participants in a Likert scale survey are asked to respond to a group of statements about a specific topic, indicating their level of agreement with each statement. The Likert scale is based on the assumptions that an experience is linear in intensity, from strongly disagree to strongly agree, and that attitudes are measurable. The Likert scale is the most popular scale used to directly measure attitudes (McLeod, 2008). The Likert scale developed for this study was reviewed and validated by two experts in hospice and palliative care. Expert A is a board certified hospice and palliative care physician with 30 plus years of experience practicing medicine, who is currently the medical director for a hospice and palliative care program. Expert A's medical oversight responsibilities include a home hospice program, a hospice house, and a hospital-based palliative care program. Expert B is a board certified family nurse practitioner with 30 years of nursing experience. Expert B has been the primary clinical provider for a community-based palliative care program for the past 5 years. A demographic survey was developed by this researcher for data collection pertaining to each participant's sex, nursing degree, years of nursing experience, and years of hospice experience (see Appendix B).

Ethical Considerations

This research study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, was approved by the Gardner-Webb University Institutional Review Board (IRB) and no data was collected prior to approval. Permission was obtained from the nursing leadership of each participating hospice agency, prior to the distribution of surveys. Explanation of the survey, its voluntary nature, and informed consent to participants was explained in writing on the cover letter of the survey. No participant was excluded from this study based on gender or race. There were no risks or benefits associated with participating in the study, and no incentives were used. All surveys were anonymous, with no identifying information collected. Voluntary consent for participation in this study was assumed upon completion and return of the survey.

Data Collection and Analysis Procedure

This researcher distributed the 13 item 5-point Likert surveys and demographic surveys to the two participating hospice agencies, including their associated hospice house facilities. Surveys were left at each hospice agency for a one week period, allowing time for completion by participating nurses. This researcher collected the surveys from both participating hospice agencies, as well as their associated hospice house facilities. All collected data was entered into a personal computer by this researcher. Statistical Package for the Social Sciences (SPSS) version 20 was used for data analysis.

Summary

This research study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal, aimed to determine if the hypothesis, hospice nurses recognize constipation as significantly impacting the quality of life for the hospice patient and hospice nurses have a positive attitude towards abdominal massage as an intervention for constipation in the hospice patient, proved true. Data was collected to analyze nurse perceptions of constipation and attitudes toward abdominal massage.

Chapter IV

Results

Introduction

This research study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, was conducted to examine nurse perceptions about the effects of constipation on the quality of life for the hospice patient, and nurse attitudes towards abdominal massage as an intervention for constipation. The design was a descriptive survey to test the following hypothesis: Hospice nurses recognize constipation as significantly impacting the quality of life for the hospice patient and hospice nurses have a positive attitude towards abdominal massage as an intervention for constipation in the hospice patient.

Sample Characteristics

A total of 69 survey packets were distributed and a final sample size for this research study was $n=44$. The number of non-responders equaled 25. The descriptive statistics of the sample population included sex, nursing degree, years of nursing experience, and years of hospice experience. Of the 44 participants, three were male and 41 were female. In regards to nursing degrees, three were licensed practical nurses (LPN), one was a diploma nurse, 26 were associated degree nurses (ADN), 13 were Bachelor of Science nurses (BSN), and one was a nurse practitioner (NP). When describing nursing experience, 28 participants had 15 years or greater, 10 participants had 6 to 10 years, three participants had 11 to 15 years, and three participants had 0 to 5 years. In terms of hospice experience, 23 participants had 0 to 5 years, 15 participants had 6 to 10 years, one participant had 11 to 15 years, and five participants had 15 years or

greater hospice experience. See Appendix C for *sample population* descriptive frequency tables.

Major Findings

The hypothesis of this research study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, was two-fold. The first part of the hypothesis, hospice nurses recognize constipation as significantly impacting the quality of life for the hospice patient, was confirmed by the results of the study. The second part of the hypothesis, hospice nurses have a positive attitude towards abdominal massage as an intervention for constipation, was not completely validated nor was it disproved by the results of the study. Frequency and mode were the appropriate descriptive statistics utilized to analyze the data collected for this research study.

The 13 item Likert survey contained six items related to hospice nurse perceptions of constipation on quality of life. The mode for question number 1 equaled 1, indicating that the most frequent response was *strongly disagree* that constipation does not affect quality of life, 93.2% of participants answered *strongly disagree* or *disagree*. The mode for question number 2 equaled 1, indicating that the most frequent response was *strongly disagree* that constipation is a minor inconvenience for patients, 93.1% of participants answered *strongly disagree* or *disagree*. The mode for question number 3 equaled 4, indicating that the most frequent response was *agree* that patients experience suffering due to constipation, 90.9% of participants answered *agree* or *strongly agree*. The mode for question number 4 was 2, indicating that the most frequent response was *disagree* that constipation is managed effectively with medications alone, 56.9% participants answered *disagree* or *strongly disagree*. The mode for question number 5 was 2, indicating that the

most frequent response was *disagree* that bowel status can be assessed by date of last bowel movement alone, 81.9% of participants answered *disagree* or *strongly disagree*. The mode for question number 6 was 4, indicating that the most frequent response was *agree* that constipation causes physical and emotional pain, 95.4% of participants answered *agree* or *strongly agree*. See table 1, Perceptions of Constipation Statistics, below. See Appendix C for *perceptions of constipation* descriptive frequency tables.

Table 1

Perceptions of Constipations Statistics

	Constipation does not affect my patients QOL	Constipation is a minor inconvenience for my patients	My patients experience suffering because of constipation	The symptom of constipation is managed effectively with medication alone	Bowel status can be adequately assessed by asking when the last bowel movement occurred.	Constipation has caused my patients to experience physical and emotional pain
Valid N	44	44	44	44	44	44
Missing	0	0	0	0	0	0
Mode	1	1	4	2	2	4

The 13 item Likert survey contained seven items to examine nurse attitudes towards abdominal massage. The mode for question number 7 equaled 4, indicating that *agree* was the most frequent response regarding willingness to receive training on abdominal massage as an intervention for constipation, 90.9% of participants answered *agree* or *strongly agree*. The mode for question number 8 equaled 3, indicating *neither disagree nor agree* was the most frequent response that patients would benefit from abdominal massage for constipation, 40.9% of participants answered *neither disagree nor agree*; however, a total of 59.1% participants answered *agree* or *strongly agree*. The mode for question number 9 equaled 4, indicating that *agree* was the most frequent response to abdominal massage may improve bowel function, 63.6% of participants answered *agree* or *strongly agree*. The mode for question number 10 equaled 2, indicating the most frequent response was *disagree* that it would be difficult to include abdominal massage with nursing interventions, 70.5% of participants answered *disagree* or *strongly disagree*. The mode for question number 11 equaled 2, indicating the most frequent response was *disagree* to abdominal massage would be an ineffective intervention constipation, 54.6% of participants answered *disagree* or *strongly disagree* to question; however, a significant percent, 40.9%, responded *neither disagree nor agree*, to question number 11. The mode for question number 12 equaled 4, indicating the most frequent response was *agree* that abdominal massage could increase quality of life, 75% of participants answered *agree* or *strongly agree*. The mode for question number 13 was 3, indicating that the most frequent response was *neither disagree nor agree* that patients would be comfortable receiving abdominal massage, 54.6% of participants responded *neither disagree nor agree* or *agree* to question number 13. See Table 2, Abdominal

Massage Statistics, below. See Appendix C for *attitudes towards abdominal massage* descriptive frequency tables.

Table 2

Abdominal Massage Statistics

	I would be willing to receive training on abdominal massage as an intervention for constipation	My patients would benefit from abdominal massage for constipation	Abdominal massage may improve my patients bowel function	It would be difficult to incorporate abdominal massage into my nursing interventions	Abdominal massage would not be an effective intervention for constipation in my hospice patients	Abdominal massage could increase my patients QOL	My patients would not feel comfortable receiving an abdominal massage
N	Valid 44	44	44	44	44	44	44
	Missing 0	0	0	0	0	0	0
	Mode 4	3	4	2	2	4	3

Chapter V

Discussion

Introduction

This research study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, examined the following hypothesis: Hospice nurses recognize constipation as significantly impacting quality of life for the hospice patient, and hospice nurses have a positive attitude towards abdominal massage as an intervention for constipation. Constipation is a prevalent symptom in the hospice population. Hospice nurses, as primary healthcare providers in the hospice setting, are positioned to effectively prevent, assess, and intervene for the symptom of constipation, including non-pharmacologic therapies. Determining hospice nurse attitudes towards constipation and abdominal massage is a primary step in the implementation of non-pharmacologic therapies for constipation, as well as the foundation for further research.

Implication of Findings

The results of this study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, were not completely congruent with the entire hypothesis of the study. The major findings of this study did conclude that hospice nurses perceive constipation as significantly impacting the quality of life for the hospice patient, proving the first part of the hypothesis true. The results regarding the second part of the hypothesis, hospice nurses have a positive attitude toward abdominal massage, were less conclusive. The modes for questions 7, 9, 10, 11, and 12 indicate that hospice nurses have a positive attitude towards abdominal massage. The mode for question 8 indicates an attitude of *neither disagree nor agree*. However, upon further examination, a

combined total percentage of *agree* or *strongly agree*, is greater than the modal result. It is concluded that the results of question 8 support the hypothesis. The mode for question 13 indicates that greater than 50% of the participants *neither disagree nor agree* or *agree*, not supporting the hypothesis regarding abdominal massage. The overall results of this study are encouraging and validating. Hospice nurses perceive constipation as significantly impacting quality of life for the hospice patient. Hospice nurse attitudes are not completely positive towards abdominal massage as an intervention for constipation. However, overall attitudes were found to be positive towards 6 of the Likert items related to abdominal massage in the survey, and neutral towards 1 of the Likert items in the survey. No Likert items in the survey resulted in a negative attitude response towards abdominal massage. The results of this study are important as a foundation for further research in this area of interest. These findings indicate that hospice nurses would respond favorably to education about abdominal massage, and to abdominal massage as a nursing intervention for constipation. No other similar studies in nursing literature were found for comparison to this study.

Application to Theoretical Framework

The theoretical framework that guided this research study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, was Jean Watson's philosophy of science and caring. This theoretical framework was appropriate, as the carative factors of *the development of a helping-trust relationship, systematic use of the scientific problem-solving method for decision making, and assistance with gratification of human needs* (Neil & Tomey, 2006) are essential in the hospice nurse-patient relationship. These factors must be present if hospice nurses perceive

constipation as significantly impacting quality of life, and if hospice nurses have a positive attitude towards abdominal massage. The overall results of this research study are congruent with Watson's philosophy of science and caring, confirming that participants in the study possess the carative factors essential to the nursing role.

Limitations

There are several limitations to this study. There is no proven reliability or validity associated with the 13 item 5-point Likert survey tool. The survey tool was created by this researcher, due to lack of availability, or inability to locate, an appropriate existing measurement tool. As a result of time constraints, the sample population for this research study was limited to two similar non-profit hospice agencies in the Upstate of South Carolina, with a relatively small sample size of n=44. As such, results may lack generalizability to other hospice environments.

Implications for Nursing

The results of this research study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, may be significant for the current nursing profession. The findings of this research study indicate that hospice nurses are aware of the impact of constipation on quality of life, and that hospice nurses have an open attitude towards abdominal massage as an intervention for constipation. The symptom of constipation, and alternative interventions, remain a current research priority for the Hospice and Palliative Nurses Association. Future practice implications related to this study may include increased education to healthcare providers about alternative interventions for constipation, as well as incorporating abdominal massage into hospice nurse interventions for prevention and treatment of constipation.

Recommendations

It is recommended that further research be conducted to assess nurse attitudes towards abdominal massage, including pre and post education surveys. Further use of the 13 item 5-point Likert survey may prove validity and reliability of the assessment tool, and further research may validate the findings of this study. Large scale quantitative and qualitative studies are recommended to examine the effects of abdominal massage on hospice patients, to expand the limited body of knowledge in this area of nursing literature.

Conclusion

This research study, Hospice Nurse Perceptions of Constipation and Attitudes towards Abdominal Massage, concludes that hospice nurses perceive constipation as significantly impacting quality of life for the hospice patient. It is also concluded that hospice nurses have an open attitude toward abdominal massage as an intervention for constipation. Based on these findings, hospice nurses would benefit from education regarding abdominal massage as an alternative, non-pharmacologic intervention for constipation. Constipation, often unrecognized, undiagnosed, and untreated, is a significant factor in the quality of life for hospice patients. On-going research regarding abdominal massage as an alternative intervention for constipation in the hospice patient may result in innovation in current nursing practice and improved clinical outcomes, including quality of life, for hospice patients and their families.

References

- Davis, K., & Drennan, V. (2007). Evaluating nurse prescribing behaviour using constipation as a case study. *International Journal of Nursing Practice, 13*, 243-253.
- Downey, L., Engelberg, R. A., Standish, L. J., Kozak, L., & Lafferty, W. E. (2009). Three lessons from a randomized trial of massage and meditation at end of life: Patient benefit, outcome measure selection, and design of trials with terminally ill patients. *American Journal of Hospice and Palliative Medicine, 26*(4), 246-253.
- Dunwoody, L., Smyth, A., & Davidson, R. (2002). Cancer patients' experiences and evaluations of aromatherapy massage in palliative care. *International Journal of Palliative Nursing, 8*(10), 497-504.
- Friedrichsen, M., & Erichsen, E. (2006). The lived experience of constipation in cancer patients in palliative hospital-based home care. *International Journal of Palliative Nursing, 10*(7), 321-325.
- Hospice and Palliative Nurses Association 2009-2012 research agenda. (n.d.). Retrieved February 18, 2011 from <http://www.hpna.org/DisplayPage.aspx?Title=Research>
- Kutner, J. S., Smith, M. C., Corbin, L., Hemphill, L., Benton, K., Mellis, B. K., ... Fairclough, D. L. (2008). Massage therapy versus simple touch to improve pain and mood in patients with advanced cancer. *Annals of Internal Medicine, 149*(6), 369-379.
- Lamas, K., Graneheim, U. H., & Jacobsson, C. (2011). Experiences of abdominal massage for constipation. *Journal of Clinical Nursing, 21*, 757-765.

- Lamas, K., Lindholm, L., Engstrom, B., & Jacobsson, C. (2010). Abdominal massage for people with constipation: a cost utility analysis. *Journal of Advanced Nursing*, 66(8), 1719-1729. doi:10.1111/j.1365-2648.2010.05339.x
- Lamas, K., Lindholm, L., Stenland, H., Engstrom, B., & Jacobsson, C. (2009). Effects of abdominal massage in management of constipation – a randomized controlled trial. *International Journal of Nursing Studies*, 46(2009), 759-767.
- Marsh, L., & Sweeney, J. (2008). Nurses' knowledge of constipation in people with learning disabilities. *British Journal of Nursing (Learning Disabilities Supplement)*, 17(4), S11-S16.
- McLeod, S. A. (2008). *Simply Psychology; Likert Scale*. Retrieved from <http://www.simplepsychology.org/likert.html>
- Moss, L., Smith, M., Wharton, S., & Hames, A. (2007). Abdominal massage for the treatment of idiopathic constipation in children with profound learning , disabilities: a single case study design. *British Journal of Learning Disabilities*, 36, 102-108. doi:10.1111/j.1468-3156.2007.00472.x
- Neil, R. M., & Tomey, A. M. (2006). Philosophy of science and caring. In A. M. Tomey & M. R. Alligood (Eds.), *Nursing Theorists and their work* (pp. 91-115). St. Louis, MO: Mosby Elsevier.
- Peate, I. (2003). Nursing role in the management of constipation: use of laxatives. *British Journal of Nursing*, 12(19), 1130-1136.
- Richmond, J., & Devlin, R. (2003). Nurses' knowledge of prevention and management of constipation. *British Journal of Nursing*, 12(10), 600-610.
- Soden, K., Vincent, K., Craske, S., Lucas, C., & Ashley, S. (2004). A randomized

controlled trial of aromatherapy massage in a hospice setting. *Palliative Medicine*, 18, 87-92.

Sturgeon, M., Wetta-Hall, R., Hart, T., Good, M., & Dakhil, S. (2009). Effects of therapeutic massage on the quality of life among patients with breast cancer during treatment. *The Journal of Alternative and Complementary Medicine*, 15(4), 373-380.

Trochim, W. M. The Research Methods Knowledge Base, 2nd. Edition. Internet WWW page, at URL: <http://www.socialresearchmethods.net/kb/> (version current as of October 20, 2006).

Weschules, D. J., Bain, K. T., Reifsnnyder, J., McMath, J. A., Kupperman, D. E., Gallagher, R. M., ... Knowlton, C. H. (2006). Toward evidence-based Prescribing at end of life: A comparative analysis of sustained-release morphine, oxycodone, and transdermal fentanyl, with pain, constipation, and caregiver interaction outcomes in hospice patients. *American Academy of Pain Medicine* 7(4), 320-329.

Wilkinson, S., Barnes, K., & Storey, L. (2008). Massage for symptom relief in patients with cancer: systematic review. *Journal of Advanced Nursing*, 63(5), 430-439.

Appendix A

Likert Survey

Nurse Perceptions of Constipation and Attitudes about Abdominal Massage

Likert Survey
Nurse Perceptions of Constipation and Attitudes about Abdominal Massage

Please rate how strongly you agree or disagree with the following statements:

1. Constipation does not affect my patients' quality of life.

1 –strongly disagree
2-disagree
3-neither disagree nor agree
4-agree
5-strongly agree

2. Constipation is a minor inconvenience for my patients.

1-strongly disagree
2-disagree
3-neither disagree nor agree
4-agree
5-strongly agree

3. My hospice patients have experienced suffering because of constipation.

1-strongly disagree
2-disagree
3-neither disagree nor agree
4-agree
5-strongly agree

4. The symptom of constipation in my patients is managed effectively with medication alone.

1-strongly disagree
2-disagree
3-neither disagree nor agree
4-agree
5-strongly agree

5. Bowel status can be adequately assessed by asking when the last bowel movement occurred.

1-strongly disagree
2-disagree
3-neither disagree nor agree
4-agree
5-strongly agree

6. Constipation has caused my patients to experience physical and emotional pain.

1-strongly disagree
2-disagree
3-neither disagree nor agree
4-agree
5-strongly agree

7. I would be willing to receive training on abdominal massage as an intervention for constipation.

1-strongly disagree
2-disagree
3-neither disagree nor agree
4-agree
5-strongly agree

8. My patients would benefit from abdominal massage for constipation.

1-strongly disagree
2-disagree
3-neither disagree nor agree
4-agree
5-strongly agree

9. Abdominal massage may improve my patients' bowel function.

1-strongly disagree
2-disagree
3-neither disagree nor agree
4-agree
5-strongly agree

10. It would be difficult to incorporate abdominal massage into my nursing interventions.

- 1-strongly disagree
- 2-disagree
- 3-neither disagree nor agree
- 4-agree
- 5-strongly agree

11. Abdominal massage would not be an effective intervention for constipation in my hospice patients.

- 1-strongly disagree
- 2-disagree
- 3-neither disagree nor agree
- 4-agree
- 5-strongly agree

12. Abdominal massage could increase my patients' quality of life.

- 1-strongly disagree
- 2-disagree
- 3-neither disagree nor agree
- 4-agree
- 5-strongly agree

13. My patients would not feel comfortable receiving an abdominal massage.

- 1-strongly disagree
- 2-disagree
- 3-neither disagree nor agree
- 4-agree
- 5-strongly agree

Appendix B
Demographic Survey

Demographic Survey

Please circle the appropriate response

Sex

Male

Female

Nursing Degree

Licensed practical nurse

Associate degree

Bachelor's degree

Master's degree

Nurse Practitioner

Years of Nursing Experience

0-5

6-10

11-15

15+

Years of Hospice Nursing Experience

0-5

6-10

11-15

15+

Appendix C
Descriptive Frequency Tables

Descriptive Frequency Tables

Sample Population

Sex

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	3	6.8	6.8	6.8
Valid female	41	93.2	93.2	100.0
Total	44	100.0	100.0	

Degree

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid LPN	3	6.8	6.8	6.8
Valid Diploma Nurse	1	2.3	2.3	9.1
Valid Associate degree	26	59.1	59.1	68.2
Valid bachelors degree	13	29.5	29.5	97.7
Valid nurse practitioner	1	2.3	2.3	100.0
Total	44	100.0	100.0	

Nursing Experience

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 to 5	3	6.8	6.8	6.8
Valid 6 to 10	10	22.7	22.7	29.5
Valid 11 to 15	3	6.8	6.8	36.4
Valid 15+	28	63.6	63.6	100.0
Total	44	100.0	100.0	

Hospice Experience

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0 to 5	23	52.3	52.3	52.3
Valid 6 to 10	15	34.1	34.1	86.4
Valid 11 to 15	1	2.3	2.3	88.6
Valid 15+	5	11.4	11.4	100.0
Total	44	100.0	100.0	

Perceptions of Constipation

Constipation Does Not Affect My Patients QOL

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	29	65.9	65.9	65.9
disagree	12	27.3	27.3	93.2
strongly agree	3	6.8	6.8	100.0
Total	44	100.0	100.0	

Constipation is a Minor Inconvenience for my Patients

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	24	54.5	54.5	54.5
disagree	17	38.6	38.6	93.2
agree	2	4.5	4.5	97.7
strongly agree	1	2.3	2.3	100.0
Total	44	100.0	100.0	

My Patients Experience Suffering Because of Constipation

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	2	4.5	4.5	4.5
disagree	1	2.3	2.3	6.8
neither disagree nor agree	1	2.3	2.3	9.1
agree	21	47.7	47.7	56.8
strongly agree	19	43.2	43.2	100.0
Total	44	100.0	100.0	

The Symptom of Constipation is Managed Effectively With Medication Alone

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	5	11.4	11.4	11.4
disagree	20	45.5	45.5	56.8
neither disagree nor agree	12	27.3	27.3	84.1
agree	7	15.9	15.9	100.0
Total	44	100.0	100.0	

**Bowel Status can be Adequately Assessed by Asking When the Last Bowel Movement
Occurred.**

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	5	11.4	11.4	11.4
disagree	31	70.5	70.5	81.8
Valid neither disagree nor agree	4	9.1	9.1	90.9
agree	4	9.1	9.1	100.0
Total	44	100.0	100.0	

Constipation has Caused my Patients to Experience Physical and Emotional Pain

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	1	2.3	2.3	2.3
neither disagree nor agree	1	2.3	2.3	4.5
Valid agree	29	65.9	65.9	70.5
strongly agree	13	29.5	29.5	100.0
Total	44	100.0	100.0	

Attitudes towards Abdominal Massage

Abdominal massage may improve my patients bowel function

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	1	2.3	2.3	2.3
neither disagree nor agree	15	34.1	34.1	36.4
Valid agree	21	47.7	47.7	84.1
strongly agree	7	15.9	15.9	100.0
Total	44	100.0	100.0	

I would be willing to receive training on abdominal massage as an intervention for constipation

	Frequency	Percent	Valid Percent	Cumulative Percent
disagree	1	2.3	2.3	2.3
neither disagree nor agree	3	6.8	6.8	9.1
Valid agree	27	61.4	61.4	70.5
strongly agree	13	29.5	29.5	100.0
Total	44	100.0	100.0	

My patients would benefit from abdominal massage for constipation

	Frequency	Percent	Valid Percent	Cumulative Percent
neither disagree nor agree	18	40.9	40.9	40.9
Valid agree	17	38.6	38.6	79.5
strongly agree	9	20.5	20.5	100.0
Total	44	100.0	100.0	

It would be difficult to incorporate abdominal massage into my nursing interventions

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	4	9.1	9.1	9.1
disagree	27	61.4	61.4	70.5
Valid neither disagree nor agree	8	18.2	18.2	88.6
agree	5	11.4	11.4	100.0
Total	44	100.0	100.0	

Abdominal massage would not be an effective intervention for constipation in my hospice patients

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	5	11.4	11.4	11.4
disagree	19	43.2	43.2	54.5
Valid neither disagree nor agree	18	40.9	40.9	95.5
agree	2	4.5	4.5	100.0
Total	44	100.0	100.0	

Abdominal massage could increase my patients QOL

	Frequency	Percent	Valid Percent	Cumulative Percent
neither disagree nor agree	11	25.0	25.0	25.0
Valid agree	29	65.9	65.9	90.9
strongly agree	4	9.1	9.1	100.0
Total	44	100.0	100.0	

My patients would not feel comfortable receiving an abdominal massage

	Frequency	Percent	Valid Percent	Cumulative Percent
strongly disagree	2	4.5	4.5	4.5
disagree	18	40.9	40.9	45.5
Valid neither disagree nor agree	23	52.3	52.3	97.7
agree	1	2.3	2.3	100.0
Total	44	100.0	100.0	