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The Impact of an Educational Program on Anxiety of Student Nurses Related to Perinatal Loss

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THE IMPACT OF AN EDUCATIONAL PROGRAM ON ANXIETY OF STUDENT NURSES RELATED TO PERINATAL LOSS

by

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Abstract

Objective: To measure the effectiveness of a perinatal loss workshop on death anxiety of nursing students.

Design: Simple, pretest-posttest.

Setting: A classroom at a State University in California.

Participants: 20 junior students in a baccalaureate nursing program in a maternal-child rotation.

Intervention: A 60-minute perinatal loss workshop including Worden's tasks of mourning, therapeutic and non-therapeutic nursing interventions, photographs, poetry, and coping skills.

Main Outcome Measure: Anxiety towards perinatal death was measured by Speilberger's State Trait Anxiety Inventory (STAI Form Y-1). Data were also gathered with a demographic questionnaire and a posttest.

Results: The mean score on the PRESTAI was 52.3 and the mean score on the POSTSTAI was 44.8. Post workshop scores decreased by 7.5 points indicating a decrease in anxiety. When asked, "If you had the chance to choose your assignment in labor and delivery how likely would you choose the woman with the intrapartum death?" the mean score changed from 2.6 before the workshop to 3.3 after the workshop ($p < .05$).

Conclusions: Students that participated in an educational program on perinatal loss reported a decrease in anxiety level towards death. Future studies should include a control group to compare educational interventions to the current curriculum in nursing programs.

Callouts

1. Death of a child can be the most devastating event in a parent's life.
2. Nurses play a significant part in the grieving process that begins in the hospital.
3. Mean scores for the PRESTAI and the POSTSTAI show a significant decrease in the anxiety level.

"When your parent dies you have lost your past. When your child dies you have lost your future" (Walsh & McGoldrick, 1991, p. 38). Death of a child can be the most devastating event in a parent's life. Even if that child has been in a woman's womb for only a few months, the death of a baby can be as traumatic as the death of a grown child. Thomas (1997) reports that 20% of all pregnancies end in miscarriage. Many families are torn apart after the death of a child. "Perinatal grief has been associated with the loss of self, self-esteem, sexual problems, and marital discord" (Wallerstedt & Higgins, 1996, p.390). Relationships between spouses are changed forever. The loss of a child may bring them closer or tear them apart. Mothers and fathers mourn for their child in different ways. Society expects fathers to be stoic and hold the family together. Mothers are allowed to grieve longer and express emotion.

Nurses are often the first ones present when a woman learns that her baby is dead and what a nurse says and does will be remembered by this woman forever. Leoni and Woods (1997) and Lowe and Neuman (1995) describe ways to help families deal with loss. Nurses need to offer nonjudgmental caring and personal involvement. Parents must be allowed to express grief in unique ways. Nurses can facilitate relationships between spouses by informing parents of the stages of grief and the importance of open communication

The term "perinatal loss" includes miscarriage (loss before 20 weeks), stillbirth (death in utero after 20 weeks), and neonatal death (death of a liveborn neonate up to 28 days after birth). In the *Annual Summary of Vital Statistics,* Guyer, Martin, MacDorman, Anderson, and Strobino (1997) reported that the 1996 infant mortality rate in the United States was 7.2 deaths per 1000 live births. These authors estimated that there were 28,237 infant deaths in the United States in 1996. The infant mortality rate by race was highest among African Americans, twice the rate of the Hispanic and White populations. In comparison to other countries with at least 2 million population, the United States and Greece have the highest infant mortality rate (IMR). Sweden has the lowest IMR at 3.7 percent for 1995 (Guyer et al.).

The curricula in nursing schools often do not allow enough time to thoroughly cover perinatal loss. Consequently, students spend limited time on this topic. Many nurses have complained about the lack of educational programs about death, dying, and bereavement in nursing schools. (Coolican, Stark, Doka, & Corr, 1994). When dealing with perinatal loss Vogel (1996) feels caregivers "freeze up" and do nothing because they are afraid of saying the wrong thing. He suggests that this fear is based on ignorance or unfamiliarity with death.

This author has 12 years experience in labor and delivery, and realizes that nurses sometimes avoid dealing with perinatal loss. When assignments are made in

the hospital the patient experiencing fetal or neonatal death is often a nurse's last choice. The lack of education regarding death may be a contributing factor.

The purpose of this study was to determine if an educational program on perinatal loss would decrease the anxiety level of nursing students about caring for a grieving patient. The expectation of this researcher is that if nursing students learn while in nursing school how to therapeutically care for grieving patients, they may experience less anxiety and not avoid this type of patient in the future. Furthermore the skills learned in communicating with bereaved parents could be transferred when dealing with other situations involving death and bereavement.

Literature Review

Much of the literature on perinatal loss focuses on parents and how nurses can help them cope. The nursing literature also includes a large number of studies regarding nurses' attitudes towards grief; most of these studies involve pediatric, AIDS, or oncology patients. Various studies have been done regarding student nurses' attitudes towards death and dying, but this researcher found no studies which specifically addressed perinatal loss with student nurses.

In the literature regarding nurses Hinds et al. (1994) did a study using a grief workshop to compare the grief and stress responses of experienced nurses (two to five years) to nurses with less experience (six months to two years). Findings indicated that the grief workshop caused significantly higher stress levels

in the experienced nurses. The authors attributed the greater stress in experienced nurses either to the nurses realizing they were using defense mechanisms to protect themselves from the pain of loss or to an ineffective workshop. This author feels further qualitative research needs to be done to discover the reasons for the greater stress in experienced nurses.

In the literature on students attitudes towards death and dying Clingerman (1996) tested two unique teaching strategies during an oncology rotation in a baccalaureate-nursing program: *AIDS: A Frame of Reference* (an art gallery) and a bereavement service. Students provided artistic collections for an art gallery on campus. The bereavement service allowed students to light candles and share thoughts and prayers. Students cried together and held one another. These strategies allowed students to explore their feelings about death. Both strategies, Hinds et al. and Clingerman, were identified as a success with students requesting more classes.

Calhoun (1994), Thomas (1997) and Primeau and Lamb (1995) studied parents' perceptions of nursing interventions after the death of their child. Findings indicated that parents were grateful that the nurse cared enough to cry. Tears validated their loss and showed the nurse's compassion. However, health professionals often feel that crying is "unprofessional" and they try to avoid showing their own grief (Saunders & Valente, 1994).

Saunders and Valente (1994) interviewed over 300 nurses that attended their bereavement workshops. These authors feel nurses must understand theories of bereavement to facilitate their own grief and make sense of death. To cope effectively with dying clients nurses must come to terms with their feelings related to dying and mortality. Findings concluded that nurses get very little training in how to deal with death.

In the literature regarding perinatal loss Kavanaugh (1997) interviewed eight parents who had experienced the death of a newborn weighing less than 500 grams at birth. The findings indicate that having a newborn on the margin of viability demands supportive, caring behaviors from the nursing staff. The data in this study also suggest that these mothers may have an increased sensitivity to pain because of the emotional pain of their loss.

Armstrong and Hutti (1998) measured anxiety of 31 expectant mothers who had previously experienced a perinatal loss. Results showed greater levels of anxiety and lower levels of prenatal attachment compared to a group of primiparous women of similar gestational age. The authors suggest that nurses working with these mothers need to be aware of the heightened anxiety and encourage actions to decrease the level of anxiety.

Theoretical Perspectives

Stress Response Model

Elliot and Eisdorfer (1982) developed the stress-response sequence model that was used as a framework for this study. This model has three interrelated components: (a) stressors, (b) reactions, and (c) consequences.

A stressor is an event or condition that has the potential to produce a change. Stressors are internal and external events that change a person's state. For the purpose of this study, the stressor used was a video showing parents who were experiencing a perinatal loss.

Reactions to a stressor as defined by Elliot and Eisdorfer (1982) are biological or psychosocial. The reactions related to anxiety about caring for a patient with a perinatal loss may include symptoms of stress. The term "anxiety" is defined as an uneasiness and distress about future uncertainties. It is characterized by feelings of tension, nervousness, and worry. For the purpose of this study, reactions were measured in terms of state anxiety using the State Trait Anxiety Inventory (STAI, Spielberger, 1983).

Consequences according to Elliot and Eisdorfer are positive or negative sequelae that are sometimes confused with reactions. Usually consequences occur after a period of time. For purposes of this study, consequences were measured with a question on the posttest asking the student if he or she would be more or

less likely to accept the assignment of a patient who was experiencing a perinatal loss.

A mediator or filter according to Elliot and Eisdorfer is a factor which modifies consequences. The workshop on perinatal loss was intended to be a mediator to modify the student nurses' attitudes and decrease anxiety. The intention of this workshop was that students would be less anxious and more confident about caring for a patient experiencing a perinatal loss.

Worden's Four Tasks of Mourning

The theoretical framework on which the perinatal loss workshop was based is Wordon's task based model. Coolican et al. (1994) surveyed 650 baccalaureate-nursing programs and recommended Worden's task model when teaching nursing students about death. Worden (1991) uses the term mourning to indicate the process that occurs with a loss, and grief as the personal experience of the loss. There are four tasks which Worden suggests are necessary for dealing with a loss.

Task 1: To accept the reality of the loss. Many times parents will ask the nurse to check again for a heart rate after learning that the baby is dead. This response is a simple example of the initial reaction of disbelief which people experience when they first hear of a death. In the workshop, students were provided examples of how to assist parents with this task.

Task 2: To experience the pain of the loss. The goal of this stage is to experience the pain so it will not be carried on throughout life. Encouraging the parents to express their grief, through words, tears, and activities can facilitate this.

Task 3: To adjust to an environment in which the deceased is missing. Parents go home without a baby to an empty nursery. Often women want to immediately get pregnant to fill the empty space left by the death of their child. Students in the workshop were helped to understand the underlying feelings of parents so they could help them come to terms with the emptiness of the loss.

Task 4: To emotionally relocate the deceased and move on with life. Parents need to learn to let go of the past. Students were provided with interventions to support families in this process. Eventually memories will be less painful.

Methodology

A convenience sample of 20 junior nursing students in a baccalaureate program was used for this study. Although the convenience sample reduces the generalizability of this study, this sampling procedure best fit the limitations of the site, and was considered adequate for a pilot study. The Human Subjects Institutional Review Board at the university approved the study. The students were in their maternal-child rotation and represented diverse cultural and ethnic backgrounds.

A simple, pretest-posttest design was used for this pilot study. Because of the nature of the course calendar one class session served as its own control group. Students completed a demographic questionnaire and then viewed the video, *When the Bough Breaks.* This is the story of a family that experienced the death of a child soon after birth. After the video, anxiety levels were measured using the STAI Form Y-1. A one-hour workshop including Worden's framework followed. After the workshop students again completed the STAI and a posttest.

Instruments

The instruments used included a consent form, a demographic questionnaire, a brief posttest, and the Spielberger State-Trait Anxiety Inventory, Form Y-1. The researcher developed the demographic questionnaire and posttest. The demographic questionnaire consisted of 12 questions regarding age, gender, religious affiliation, and previous experience dealing with death. The demographic questionnaire and the posttest had two identical questions using a Likert scale asking the students to identify their comfort level in caring for a patient experiencing a perinatal loss. See table 1 for the three questions that were used on the demographic questionnaire and the posttest. The posttest consisted of four questions to evaluate the course objectives and three questions (two the same as the demographic questionnaire) regarding comfort level in caring for a patient with a perinatal loss.

The STAI Form Y-1 evaluates apprehension, tension, nervousness, and worry--how respondents feel "right now". State anxiety is a reaction at a given time. Trait anxiety (STAI Form Y-2) refers to individual differences between people and how they typically respond to stressful situations. For this study the researcher used the anxiety portion of the STAI Form Y-I. Possible scores range from 20 to 80 points, which includes 20 statements based on a four point Likert scale and takes about six minutes to complete. Sample questions include, "I feel nervous," "I feel upset," and "I feel at ease."

Spielberger established construct validity by comparing the mean scores of various neuropsychiatric patient groups with those of normal subjects. Lower scores of the character disorder group, for whom the absence of anxiety is part of their illness, provided further evidence of construct validity of the STAI. Cronbach's alpha coefficients were .91 for males and .93 for females when testing stress levels of college students. Alpha reliability coefficients were higher when the scale was given under conditions of stress. The STAI is considered to be a valid and reliable instrument for measuring anxiety and is widely used for this purpose.

Perinatal Loss Workshop

The 60-minute workshop included Worden's tasks of mourning, types of perinatal loss, therapeutic and non-therapeutic nursing interventions, spirituality, poetry, music, and caregiver coping skills. Photographs from the book by Johnson,

Cunningham, Weinfeld and Gough (1997) entitled, *A Most Important Picture* were shown to the students. The researcher obtained permission from the author of the book to use the photographs in the research. These are tasteful pictures of families holding dead babies. The fear of what a dead baby looks like is often worse than the baby's true appearance. The workshop outline is shown in Table 2.

Results

Demographic Data

The convenience sample was comprised of 18 female and 2 male nursing students (n = 20). Eighteen subjects were age 20 to 30 and two were age 30 to 50. Seventeen subjects were single and three were married. Twenty-five percent have children, and 85% indicated some religious affiliation. All of the subjects had had someone close to them die and 10% had themselves experienced a perinatal death. Thirty-five percent had attended a class on death and dying and 45% had experience with death in a clinical practicum (10% neonatal death and 35% adult death). See table 3 for further demographic data.

Question number 11 on the demographic questionnaire and question number 5 on the posttest is, "How comfortable do you think you would be taking care of a woman experiencing a stillbirth?" The pre workshop mean score was 2.5 and the post workshop mean score was 2.6. This represents only a tenth of a change after the workshop and is not significant.

However, question number 12 on the pretest and question number 6 on the posttest, "If you had the chance to choose your assignment in labor and delivery how likely are you to choose the woman with the intrapartum death?" showed a significant change after the workshop ($p < .05$). The mean score to this question changed from 2.6 before the workshop to 3.3 after the workshop. This suggests that the subjects are more likely to choose this assignment after the workshop. One subject did not answer this question.

A five point Likert scale was used for the posttest question, "How do you feel this workshop affected your ability to care for a patient experiencing a fetal loss?" with scores ranging from 1 (not at all) to 5 (very much so). The mean for this question was 4.37 which means the workshop affected them "very much so" in their ability to care for a perinatal loss patient.

Mean scores for the PRESTAI were 52.3 ($SD = 9.3$) and POSTSTAI scores were 44.8 ($SD = 9.6$) These scores show a significant decrease in anxiety level by 7.5 points. Means and standard deviations of PRESTAI and POSTSTAI were computed with differences between means analyzed by the use of a t test (paired samples test). The mean score was 7.50, $SD = 9.68$, $t = 3.5$, $df = 19$, $p < .003$.

Discussion

According to Elliot and Eisdorfer's stress model the workshop was a mediator for the student nurses anxiety level. All 20 questions on the STAI showed a decrease in anxiety level after the workshop. The difference between the preworkshop scores for "If you had the chance to choose your assignment in labor and delivery how likely would you choose the woman with the intrapartum death?" and to the post workshop scores, showed a 30% increase in students likely or very likely to accept this assignment after the workshop. This indicates that the workshop was a positive mediator to prevent avoidance of perinatal loss patients. Because the students reported positive results after the workshop in their ability to care for the fetal loss patient, these findings support the importance of classes on perinatal in nursing programs. Comments from students to the researcher after class included, "I wish I had this workshop earlier in the program." "Now I know what to say to these patients." and "I'm so glad its OK to cry."

Limitations and recommendations for further research.

The lack of a control group and the use of a convenience sample are two limitations to this study. Due to the limited number of subjects and the lack of a control group the results cannot be generalized to other baccalaureate nursing schools.

Further studies with a larger sample size and a control group are encouraged. A study using a mix of qualitative and quantitative data is also recommended. Research could be done comparing the anxiety of experienced nurses working in birthing centers to their educational background. Follow up data could be gathered at six months and one year after the workshop to see if anxiety levels were maintained.

Implications for Nursing Practice

Nursing educators need to include content on death and dying. Maternity nursing instructors need to provide students with various opportunities to learn to respond to perinatal loss. Strategies that influence the affective domain appear to work well when teaching death and dying (Clingerman, 1996). This author feels that movies, pictures, music, and poetry are some strategies that made this class so effective. The students in this study were very moved by the pictures of dead babies and the stories of past experiences of the researcher. Death is a part of the circle of life and as nursing educators we must thoroughly teach death to students in nursing school.

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Table 1: Sample Questions Demographic Data/Posttest

Please answer the following questions using the scales provided:

1. On a scale of 1 to 5 how comfortable do you think you would be taking care of a woman experiencing a stillbirth? *

1	2	3	4	5
very uncomfortable	slightly uncomfortable	simply ok	comfortable/ at ease	completely comfortable

2. If you had the chance to choose your assignment in labor and delivery how likely are you to choose the woman with the intrapartum death? *

1	2	3	4	5
very unlikely	unlikely	not sure	likely	very likely

3. How do you feel this workshop has affected your ability to care for a patient experiencing a fetal loss? * *

1	2	3	4	5
not at all	somewhat	no difference	moderately so	very much so

*Demographic Questionnaire #11 and 12; # 5 and 6 on the posttest

** Posttest only

Table 2: Perinatal Loss Workshop Outline

Introduction: Procedure, purpose, consent, confidentiality, and demographic questionnaire.

Movie: *When the Bough Breaks, Working With Families who have Experienced the Death of an Infant.*

Complete the STAI.

Objectives

Upon completion of the workshop, the student will be able to:

1. describe the difference between stillbirth and neonatal death.
2. discuss what nursing interventions are therapeutic and non-therapeutic when dealing with a family experiencing perinatal death.
3. state two self-care activities that can facilitate your grieving.
4. explain one of Worden's four tasks of mourning.

I. Worden's four tasks of mourning

II. Types of perinatal loss

III. At the time of the loss

IV. Therapeutic and non-therapeutic nursing interventions

V. Photographs from *A Most Important Picture*
   A. How to take a good picture: Mementos

VI. Special cultural considerations/spirituality

VII. Caregiver coping skills/resources

STAI/Posttest

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VII. Caregiver coping skills/resources

STAI/Posttest

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Table 3 Demographic Data (n=20)		
	Frequency	Percent
Age:		
20–30	18	90.0
30-40	1	5.0
40-50	1	5.0
Gender:		
Male	2	10.0
Female	18	90.0
Marital Status:		
Single	17	85.0
Married	3	15.0
Children:		
Yes	5	25.0
No	15	75.0
Religious Affiliation:		
Yes	17	85.0
No	3	15.0
Years of College (n=19)		
2-4	2	10.0
4 and above	17	85.0
Anyone close to you ever die?		
Yes	20	100.0
No	0	0
Ever had a stillborn, miscarriage or neonatal death?		
Yes	2	10.0
No	18	90.0
Ever attend class on death and dying?		
Yes	7	35.0
No	13	65.0
Ever experience death in clinical practicum?		
Yes	9	45.0
No	11	55.0