Award Number: DAMD17-00-1-0509

TITLE: Interdisciplinary Research Training in Breast Cancer

PRINCIPAL INVESTIGATOR: Ruth McCorkle, R.N., Ph.D.

CONTRACTING ORGANIZATION: Yale University
New Haven, Connecticut

REPORT DATE: July 2002

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for Public Release;
Distribution Unlimited

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.
**Interdisciplinary Research Training in Breast Cancer**

**Ruth McCorkle, R.N., Ph.D.**

**Yale University**  
New Haven, Connecticut  
E-Mail: ruth.mccorkle@yale.edu

**U.S. Army Medical Research and Materiel Command**  
Fort Detrick, Maryland 21702-5012

---

**Abstract (Maximum 200 Words) (abstract should contain no proprietary or confidential information)**

The purpose of this predoctoral and postdoctoral training program is to prepare clinical researchers who will impact the care of women with breast cancer or women who are at risk for breast cancer. The predoctoral program prepares the beginning researcher with the knowledge and skills necessary to develop and test clinical interventions. This program builds on the Yale School of Nursing's current doctoral program. Postdoctoral training prepares the investigator to conduct more complex studies which involve an interdisciplinary perspective or the need for sophisticated analytic techniques. The research training program in breast cancer has completed its second year and all positions have been filled with outstanding trainees. Faculty across disciplines are collaborating and joint initiatives have been established. These activities are enhancing our ability to contribute to the knowledge base related to the care of women with breast cancer or women at risk to develop breast cancer.
Table of Contents

Cover ......................................................................................................................... 1
SF 298 ...................................................................................................................... 2
Table of Contents ..................................................................................................... 3
Introduction .............................................................................................................. 4
Body .......................................................................................................................... 4
Key Accomplishments ............................................................................................. 12
Reportable Outcomes ............................................................................................. 12
Conclusions .............................................................................................................. 13
References .............................................................................................................. N/A
Appendices ............................................................................................................. N/A
INTRODUCTION

The purpose of this predoctoral and postdoctoral training program is to prepare clinical researchers who will impact the care of women with breast cancer or women who are at risk for breast cancer. The predoctoral program prepares the beginning researcher with the knowledge and skills necessary to develop and test clinical interventions. This program builds on the Yale School of Nursing’s current doctoral program. Postdoctoral training prepares the investigator to conduct more complex studies which involve an interdisciplinary perspective and more sophisticated analytic techniques.

The research training program has completed its second year. Dr. Michael DiGiovanna replaced Dr. Michael Reiss this past academic year when Dr. Reiss relocated to the Cancer Institute of New Jersey. The two program directors, Drs. Ruth McCorkle and DiGiovanna, met quarterly with their administrative team, that includes two additional researchers in breast cancer: Drs. Tish Knobf and Beth Jones. Dr. Knobf is an Associate Professor in the Yale School of Nursing and was awarded tenure this past year. She has developed a program of research related to chemotherapy induced menopause. Dr. Jones is an Associate Professor in the Yale School of Epidemiology and Public Health. Her research is related to factors associated with the incidence of breast cancer in black and white women. Dr. Elizabeth Bradley, an Associate Professor in the School of Public Health was added to the core faculty. Her area of research is in End of Life Care.

BODY

Task 1: Completed.

Task 2: Ongoing.

Substantive content related to breast cancer has been added to two core courses within the doctoral program: N913 Human Responses to Chronic Illness and N941 Linking Research and Health Policy. Dr. McCorkle has formalized a course N972b: Seminar on Research in Care of People with Cancer or at Risk for Cancer and their Families. This course was approved by the curriculum committee and offered during the spring semester of the 2001-2002 academic year.

Research experiences in breast cancer have been identified with the program faculty, including Drs. McCorkle, Knobf, Jones,Pasacreta, Bradley, and Kasl. Assignments are based on interest of the trainee and match with the mentor’s program of research. The predoctoral trainees, Pamela Potter and Katie Lee, work with Drs. McCorkle and Knobf. Dr. Clemmens works directly with Drs. McCorkle, Knobf and DiGiovanna. Dr. Schulman Green works directly with Drs. McCorkle and Bradley.

Task 3: Completed.

Task 4: Completed.

Task 5: Ongoing.

A formalized system to select and monitor trainees has been implemented. The administrative team meets monthly to review the trainees’ progress. Trainees are matched with research mentors based on their interests and mentors’ program of research. Trainees meet
weekly with their mentors and participate in their research activities while concurrently developing their own research proposals. Trainees submit their goals annually and they are peer reviewed as part of the reappointment process.

Task 6: Ongoing.

There have been a number of activities that the faculty and trainees have participated in that were initially established as a part of the Yale Cancer Center. These have included monthly grand rounds that are co-sponsored by this training program, and monthly meetings of the Breast Cancer Group, under Dr. DiGiovanna’s leadership. The trainees have also participated in monthly meetings of the pre and postdoctoral trainees in the School of Nursing. Although the focus of this latter group is not solely on breast cancer, all of the participants are studying vulnerable populations with other chronic diseases and their discussions related to methodological and analytical issues are relevant. As part of the training program, several nationally recognized researchers were asked to present their research at the Cancer Center Grand Rounds. These included: Dr. Laura Northouse, Professor, University of Michigan School of Nursing, who spoke on the Impact of Cancer on the Family. Dr. Linda Jacobs and Ms. Wendy Hobbie, Advanced Practice Nurses and researchers from the University of Pennsylvania presented their talk entitled: Surviving Cancer: Child and Adolescent Perspectives. Individual and informal gatherings with students were held the evenings before their presentations. Journal club meetings were held with all three visiting professors. Dr. Northouse led the group in discussion of research on the family and cancer. Dr. Linda Jacobs facilitated the discussion regarding research related to surviving cancer.

Task 7: Ongoing.

We have been successful in recruiting one predoctoral and one postdoctoral trainee. We are currently reviewing our applicants for year 03 and will make our final selection at our August administrative team meeting.


As a third year, full time doctoral student, Pamela Potter was selected for her work using complementary therapy (Reiki) for relieving the psychological distress experienced by women undergoing a breast biopsy. Dr. Ruth McCorkle is Ms. Potter’s academic and research advisor. Subjects for Ms. Potter’s research are recruited from the Surgical Outpatient Department of Yale New Haven Hospital.

Key accomplishments of Ms. Potter
As part of the training program. Ms. Potter has completed the following courses this past academic year:

Fall 2001
NURS 991  Dissertation Advisement

Spring 2002
BIS 540  Fundamentals of Clinical Trials
NURS 991  Dissertation Advisement
Reportable Outcomes of Ms. Potter

Publications

Presentations
- Reiki for People Living with Cancer. YNHH Cancer Survivor’s Day, 6, 2001

Grants
- The Effects of Reiki on the Psychological Distress of Women Undergoing a Breast Biopsy. Received from the American Cancer Society. $15,000.00.

Grant Proposals
- Submitted to the DOD for the BCRP2 Predoctoral Traineeship Award. 06/2002.
- Submitted to the Oncology Nursing Society Small Grant competition, 05/2002.

National Meetings and Networking
Ms. Potter attended the Oncology Nursing Society 27th Congress, Washington DC, January 2002, where she met with internationally known breast cancer researchers. She attended the Comprehensive Cancer Care Conference in October 2002, where she participated in sessions related to integrating Complementary & Alternative Therapies into practice. Ms. Potter participated in Cancer Grand Rounds at YNHH with Dr. Northouse, Dr. Jacobs and Ms. Hbbie, and met with Dr. Northouse related to her work with families of patients with breast cancer. Ms. Potter is an active member of the Oncology Nursing Society and the Psychoneuroimmunology and Complementary Therapy Special Interest Group, and Co-Editor of the ONS PNI/CT SIG Newsletter. Ms. Potter has submitted the following abstracts for presentation at the following conferences:

Dissertation Proposal
Ms. Potter’s dissertation is a clinical trial of a complementary therapy (Reiki) versus an attention control (Focused Breathing Exercise) for relieving the psychological distress experienced by women undergoing a breast biopsy. Subjects (n=160) will be randomly assigned to treatment or attention control. Subjects in the Reiki group will have two treatment sessions in the week prior to biopsy and one session within three days after. Subjects in the attention control group will be given a focused breathing exercise to be repeated on three occasions (two times the week prior to biopsy and one time after). Distress will be measured prior to any intervention and after the final intervention. Preliminary work is in progress to assure access to patients and to test the protocol.

As a third-year full-time doctoral student, Shiu-yu (Katie) Lee continued her second-year pre-doctoral training in the year of 2001. Ms. Lee is in the process of conducting her dissertation study, entitled "Treatment Decision-Making for the Primary Treatment of Early-Stage Breast
Cancer in Chinese American Women." Dr. Tish Knobf is the chair of her dissertation committee, with Drs. McCorkle and Dixon serving as faculty members of the committee. Two nationally recognized researchers in breast cancer, Professor Frederick Li and Professor Lesley Degner also participated in mentoring Ms. Lee's research program. Professor Frederick Li is the professor at Harvard University School of Medicine and a Chinese research scientist with expertise in breast cancer genetics and cancer epidemiology. Dr. Lesley Degner is a professor at the University of Manitoba in Canada and an internationally recognized researcher on preference of participation and treatment decision-making in women with breast cancer. Ms. Lee met weekly with Dr. Knobf and Dr. McCorkle and communicated with other team mentors regularly. As part of her research practicum, Ms. Lee attends the medical oncology clinic at the Yale Cancer Center to review medical records as part of research team to test the effect of symptom management and education for patients who are receiving chemotherapy.

**Key accomplishments of Ms. Lee**
As part of the training program. Ms. Lee has completed the following courses during the academic year

**Fall, 2001**
BIS 623 Applied Regression Analysis (School of Public Health)
MGT 753 Behavioral Decision-Making (School of Management)
N991 Dissertation Advisement

**Spring, 2002**
BIS 628 Longitudinal Data Analysis (School of Public Health)
N991 Dissertation Advisement

**Reportable Outcomes of Ms. Lee**

*Publications*


*Posters*


*National Meetings and Networking*

Ms. Lee attended the Oncology Nursing Society 27th Congress, in Washington DC, April 2002. She met with other nursing researchers who were interested in helping women with breast cancer in making decisions for their treatment and cancer care, Drs. Noreen Facione and Alexia Bakos. She also met with other breast cancer experts and discussed issues of breast cancer screening and care in minority women. Ms. Lee is planning to participate in the 2002 DOD Era of Hope Meeting in Florida, September, 2002. Ms. Lee also participated in cancer grand rounds at the Yale Cancer Center.
Grants

- Treatment Decision-Making for the Primary Treatment of Early-Stage Breast Cancer in Chinese American Women. Oncology Nursing Society Small Research Grant. $2500.00.

This dissertation study was funded by the Oncology Nursing Foundation. The aims of the study are to describe the treatment decision for early-stage breast cancer, the potential determinants and evaluation of decision making in Chinese American women with early-stage breast cancer. In previous studies of Caucasian population, women reported difficulty in making decisions regarding treatment for their breast cancer. Some women also did not perceive that they would certainly choose the same surgery again. It is important to oncology healthcare providers to promote the women as fully informed decision-maker for their breast cancer. Breast cancer is the most common cancer among Chinese American women in United States. Kagawa-Singer (1997) reported the Chinese American women were less likely to choose BCS than the Caucasian women, and they perceived their families as most important in their decision-making process. However, how the decision is made and how these Chinese American women evaluate the decision remains unknown.

Ottawa Decisional Support Framework serves as the framework to identify the determinants and the evaluation of the decision, and the relationship between variables. Variables include the decision of the primary surgery, decisional conflict, expectation, value, participation role, and family involvement as the determinants of the decision, regret and satisfaction as the evaluation of the decision.

This study is a cross-sectional, descriptive study with standardized measures, and three open-ended questions to elicit information about family involvement. A convenience sample of 137 Chinese American women with early-stage breast cancer will be sampled from the breast cancer centers, cancer support programs and oncology clinics in larger New York City area. The women self-identified with Chinese ancestry who has received the primary surgical treatment for early-stage breast cancer three and 12 months ago, and who can read in Chinese and understand Mandarin will be recruited. In March 2002, Ms. Lee passed the proposal defense. After Yale School of Nursing Human Subject Research Review Committee approved her proposal, 32 subjects have been recruited into this study from April to June 2002.

Data are collected either at subjects’ home, clinics, and cancer support program agencies as subjects’ preference. Data are collected as pencil-paper test on five standardized instruments that have been translated into Chinese with equivalence from back-translation, and tested for cultural relevance. All subjects will be also interviewed with three open-ended questions about family involvement during their decision making process. The interview data will be written in Chinese and analyzed by content analysis. The themes will be translated into English for report after the equivalence of translation achieved. For quantitative data, the properties of reliability and validity of standardized measures will be tested first. Then, the determinants and evaluations of the decision will be described with univariate and bivariate statistic strategies. T-test, correlation, ANOVA will be used to analyze the relationship among variables. The findings can increase oncology healthcare providers' understanding of the treatment decision-making process among Chinese American women and provide cultural sensitive care to them and their family.

Postdoctoral. Dr. Dena Schulman Green. Appointed January 1 2002-1st year trainee.

Dr. SchulmanGreen defended her dissertation at the University of Massachusetts Boston in December of 2001 and started as a postdoctoral trainee on January 1, 2002. Dr. Schulman Green is a social gerontologist specializing in end-of-life care. She is currently developing a research
program related to factors affecting palliative care, including care trajectories (i.e. transition from curative to palliative care, patient/family decision-making), and clinical education, attitudes, and practice of palliative and hospice care. Since January, Dr. Schulman Green has also worked with Dr. McCorkle to create a cohesive research agenda. Dr. Schulman Green has also worked closely with Program Faculty member Dr. Elizabeth Bradley of the Yale School of Epidemiology and Public Health on various research projects (see below).

**Key Accomplishments of Dr. Schulman Green**

As part of the training program, Dr. Schulman Green has completed the following course: CDE 532B, Epidemiology of Cancer. Spring term, 2002. This course presented cancer etiology and prevention, and covered such topics as cancer biology, carcinogenesis, cancer incidence and mortality rates, risk factors for cancer, and major cancer sites, including the breast.

Additionally, Dr. Schulman-Green has worked on two major research projects:

- The Hope Survey Project, which qualitatively examined 180 nurses’ practices regarding referral of patients to hospice. Dr. Schulman-Green has primary responsibility for this study, and has developed a coding system for the data, coordinated and performed coding, and conducted analysis. An abstract of this study has been submitted for presentation at the 2002 Annual Meeting of the Gerontological Society of America. A paper based on the study will be submitted to the *Journal of Professional Nursing* shortly.

- The Delayed Hospice Study, which, using in-depth individual interviewing, studies patient and family experiences with hospice as well as reasons for and outcomes of delayed hospice referral. Dr. Schulman-Green has conducted interviews with family members of cancer patients, including those with breast cancer. She has also developed a coding system, coded interviews, and is currently involved in data analysis.

Finally, Dr. Schulman-Green is a member of the Palliative Care Team under development at Yale-New Haven Hospital. To date, she has attended team meetings and provided background materials for the group’s initiatives. Participation in this group has also afforded networking opportunities with clinicians and researchers involved in end-of-life care at Yale University and Yale-New Haven Hospital. In each of these activities, the majority of the subjects include women with breast cancer.

**Reportable Outcomes of Dr. Schulman-Green**

*Publications*


*Manuscripts in Review*

- Schulman-Green, D. Coping mechanisms of physicians who routinely work with dying patients. *Omega*. 
• Schulman-Green, D. How do physicians learn to provide palliative care? *Journal of Palliative Care.*

• Schulman-Green, D. An expansion of IOM barriers to excellent palliative care: Reports of palliative and non-palliative physicians. *Journal of Palliative Medicine.*

• Schulman-Green, D. Interview 18: One physician. One graduate student. Many lessons on care at the end of life. *Boston Magazine.*

**National Meetings, Presentations, and Networking**

Dr. Schulman-Green has attended/plans to attend and present at the following national meetings where she has had or will have the opportunity to network with experts in end-of-life care, such as Drs. Joanne Lynn and Terri Wettle.


• Schulman-Green, D. How prepared are physicians to address psychosocial and spiritual aspects of palliative care? Presented at the 54th Annual Scientific Meeting of the Gerontological Society of America, Chicago, IL, November, 2001.

Dr. Schulman-Green also regularly attends seminars held by the Yale Program on Aging, where she has met experienced researchers in end-of-life care, including Drs. Terri Fried and Stanislav Kasl. Dr. Schulman-Green was invited to discuss her work, “Physicians’ attitudes and behavior providing palliative care to older adults” in April 2002 within this forum.

**Grant Proposals:**

Dr. Schulman-Green is currently exploring funding opportunities, and expects to submit a grant proposal in late 2002 or early 2003. Her study will likely focus on patients with breast cancer who are transitioning from curative to palliative care. This investigation on the decision-making process will also focus on the decision to enroll in clinical trials.
Postdoctoral. Dr. Donna (Danuta) Clemmens. Appointed October 1, 2000-2nd year trainee.

Dr. Clemmens has continued into her second year of the postdoctoral training program with a focus on working with adolescent daughters of mothers with breast cancer. Dr. Clemmens is nationally recognized for her work in Maternal and Child Health, and has expanded her field of study to adolescents and mothers with breast cancer. Throughout the year, Dr. Clemmens has worked closely with Dr. McCorkle as the Program Director and mentor in expanding her research to adolescent children and women’s experiences with breast cancer. Dr. Clemmens also attends the breast cancer clinic with Dr. Knobf on Wednesday mornings to talk with patients about their experiences. Dr. Clemmens participated in cancer center grand rounds at the Yale Cancer Center, the journal club meetings, and met with visiting professor, Laura Northouse, an expert in families coping with breast cancer.

Key Accomplishments of Dr. Clemmens

As part of the training program, Dr. Clemmens has audited the following course:
Com 403, Communication Theory. Spring term, 2002. This course presented an overview of current communication theories and covered topics such as facilitating communication between health care providers and clients, and disclosing difficult information. This course was helpful in increasing her knowledge base in the area of communication theory and in developing a framework to guide the next phase of research.

Reportable Outcomes of Dr. Clemmens

Publications


Publications in Progress


National Meetings and Networking: Presentation and Networking

Dr. Clemmens attended or plans to attend and present at the following conferences, and met with internationally known breast cancer researchers. She has continued to meet with other professionals and groups throughout Connecticut that provide services related to breast cancer.

- Adolescent Mothers’ Experiences of Feeling Depressed after the Birth of Their Babies. Sigma Theta Tau International Convention, Indianapolis, IN.
- Adolescent daughters and mothers with breast cancer: Abstract submitted to the Oncology Nursing Foundation’s 7th Annual Conference on Cancer Nursing Research.

Grants

Adolescent daughters and mothers with breast cancer. P.I. Received from University of Connecticut Large Faculty Grants. $7,000.00 for research activities conducted over the summer.
Adolescent daughters and mothers with breast cancer. P.I. Received from the Oncology Nursing Foundation and Genetech: $20,000.00 Outcomes Research Fellowship grant.
The purpose of the study is to increase the understanding of adolescent daughters’ experiences with a maternal diagnosis of breast cancer. The aim of this study is to describe the experiences of adolescent daughters from their perspective, in living with and communicating about their mothers’ diagnosis of breast cancer. The potential burden of living with mothers’ breast cancer diagnoses and treatments, with their potential loss, and with assuming some of the caregiver responsibilities of the family, presents adolescent daughters with stressful and potentially devastating life experiences. Yet few studies address the impact of parental cancer on adolescent daughters. Researchers have also identified the difficulty women experience in communicating about the disease with their children. Given the additional stress of potentially developing the disease, the experiences of adolescent daughters’ lives need to be addressed.

Van Manen’s interpretive, phenomenological design guides the data collection and analysis and combines both a descriptive and interpretive method. Recruitment involves several Cancer Center clinics and community agencies throughout Connecticut. The sample for this study is purposive, and will include approximately 20 English-speaking participants at 3 developmental stages, between 13 to 18 years of age. The primary question to be answered by this study is, “What are adolescent daughters’ experiences in living with and communicating about their mothers’ breast cancer”? An in-depth, semi-structured interview is being audiotaped. Participants are also asked to reflect upon a piece of music, art, literature or journal entry that portrays their experience. Data collection is ongoing and will continue until data saturation is achieved. Major themes describing the phenomenon will be identified from the data. The findings can increase nurses’ understanding of how this highly stressful phase in a woman’s illness trajectory affects adolescent daughters at different ages and stages, and potentially lead to interventions that will help adolescent daughters and mothers cope with the experience of breast.

KEY ACCOMPLISHMENTS OF THE PROGRAM

The following activities were accomplished in the second year:
1. The core administrative team met regularly to plan and complete the work of the training program.
2. Selected trainees based on established criteria.
3. Implemented a process for monitoring trainees’ progress.
4. Developed a new course within the School of Nursing doctoral program to include content related to breast cancer research.
5. Implemented a long term plan for recruiting applicants, including minorities.
6. Implemented a postdoctoral training program within the School of Nursing.
7. Implemented mechanisms for collaboration among program faculty.
8. Identified opportunities for funding research grants of trainees and facilitated submission of proposals to agencies and foundations.

REPORTABLE OUTCOMES OF THE PROGRAM

The following outcomes were achieved:
1. Filled our one predoctoral and one postdoctoral positions with competitive and qualified trainees.
2. Recruited Dr. Michael DiGiovanna as the co-director of the research training program to replace Dr. Michael Reiss who left Yale School of Medicine in April, 2001.
3. Presented research findings related to breast cancer research to potential donors of the American Cancer Society, New England Division in April, 2002 for potential funding, Drs. McCorkle, Knobf, and DiGiovanna presented.

4. The Connecticut Cancer Plan was approved by the State of Connecticut, Department of Health. Dr. McCorkle will continue to serve as co-chaired of the Connecticut Cancer Coalition to implement the plan. The plan was developed in collaboration with the Yale Cancer Center, the University of Connecticut, the State Department of Health, and the Connecticut Medical Society. Breast cancer was included as one of the three cancer sites that the state has identified to reduce the burden of cancer in the state. A grant has been submitted to the CDC to develop the next phase of implementing a cancer prevention and control program in Connecticut.

CONCLUSIONS

Within the second year of the research training program in breast cancer, the program directors have filled their two positions with outstanding trainees. Courses in the doctoral program at the Yale School of Nursing have been expanded to include breast cancer content. The postdoctoral program has been established. Faculty across disciplines are collaborating and future initiatives are planned. These activities will enhance our ability to contribute to the knowledge base related to the care of women with breast cancer or women at risk to develop breast cancer.