
A Proposal For

Total Arm Care Program

Lymphedema Prevention for Post Surgery Mastectomy,
Lumpectomy, and/or Radiation Treatment Patients:

A Self Care Tutorial

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PROJECT OVERVIEW

Introduction & Organizational Need

The Breast Cancer Research Project, a collaborative of women's health researchers and service providers has been researching the severity of lymphedema and access to interventions post mastectomy, lumpectomy, and/or radiation treatment. They are working with low-income, medically-underserved women who have recently undergone breast cancer surgery (mastectomy, lumpectomy, and/or radiation treatment). Their work on this project has uncovered a lack of free or low-cost information about lymphedema (a common side effect from the surgery) and about home self-care for its prevention. Many low-income women who undergo mastectomies and lumpectomies after being diagnosed with breast cancer are uninsured and often have to rely on low-cost or free medical clinics for their health care. Often these clinics are over-burdened and cannot spend much time with the patients. The appointment times are short and there is little or no time to educate patients about lymphedema: signs and symptoms and prevention. Additionally, this medically-underserved population is at high risk for lymphedema due to lack of timely post surgery follow-up. Reasons for this include family and job responsibilities, transportation difficulties, as well as accessibility and availability of appointments at the clinics.

Lymphedema prevention and self-care information does exist but The Total Arm Care Program of the Breast Cancer Research Project Collaborative has been unable to find effective low-cost or free information. Patients were not able to reenact the exercises illustrated in print-based instructional diagrams. The BCRP Collaborative believes that a multimedia tutorial would be substantially more effective for teaching the exercises to the patients. This tutorial will instruct patients in the importance of post-surgery arm care and give examples of how to self-evaluate and prevent the onset of lymphedema. The Total Arm Program is seeking a low-cost educational solution to address the need for this important information and instruction.

Course Goals

The goal of this tutorial is to decrease the incidence of lymphedema in the target audience outlined below.

Target Audience

The target audience consists of low-income, medically-underserved women in the Bay Area who have undergone mastectomies or lumpectomies as part of their treatment for breast cancer.

Instructional Strategies

The interface design and interactive features will allow users to control how much content they view each time and will also allow the user to skip sections they feel they have mastered. Course information will be presented in small, discrete segments to minimize overload and enhance retention. Visual, verbal, and textual reinforcement will be used as appropriate. Strategies will also include:

- Video introduction to set the scope of project.
- Video interview of women post mastectomy surgery to relate a common experience.
- Video demonstrations of preventive exercises with accompanying audio.
- Animation to enhance reinforcement of care.

Content Outline

Introduction

Signs and Symptoms of Lymphedema

Exercise Demonstrations -3 Stages:

- 1) Immediately Post-surgery
- 2) Midterm and
- 3) Ongoing

Information about Compression Sleeves

Post surgery Do's and Don'ts

Resources

Scope of Work

- Instruction and production guide will include technical specifications
- Style guides for the DVD project
- Instructional content to be delivered in English (and later translated into Spanish)
- Assets used in the production of the DVD prototype (ex. video, audio, etc.)

Key Considerations

- Timely communication between the design/production team and the client
- Access to lymphedema information and research findings-to-date
- Effective and timely communication between members of the design/production team
- Dedication of all members of the design/production team to developing an effective, useable prototype by the end of the semester
- Access to Subject Matter Experts
- Use of understandable (not highly technical) and respectful language in the final product
- Clear learning objectives that are appropriate for the target audience.
- Appropriate use of visuals and media to enhance learning and retention.
- User-centered design with an iterative usability testing process.

Technical Information

Use of the final product requires a consumer level DVD player which has been determined to be a common item owned by the target audience.

Development Process

Lymphedema Exercise Education Project team designs and builds in stages to ensure client input and feedback, as well as quality and technical compatibility.

Content Review

Team will collaborate with client Subject Matter Experts to review and optimize content prior to tutorial production.

Graphic User Interface Design

Team will provide preliminary GUI and look-and-feel drafts, as well as composites, to allow client input and feedback. These components will be revised based on client input and feedback to guide revision.

Prototype

A limited-scope prototype version of the DVD tool with examples of the types of user features and interactions will be included in the final product.

Timeline and Deliverables

The deliverables, timeline, and strategies to complete the project are outlined as follows:

Deliverables	Activity	Due Date
Needs /Content Analysis	Research Group Meets Entire Project Group Meets	10/13/2004
Content Development	Clients write content/script	10/22/2004
GUI Design Mockups	Team produces GUI mockups	10/27/2004
Design Document	Team produces revised GUI mockups and design document	11/10/2004
Videotape Exercises & Introduction	Team videotapes exercises, interviews patients, etc.	11/10/2004
Edit Video	All graphical and video content will be synthesized	11/14/2004
Record Audio	Voiceover and audio will be recorded to reinforce exercises	11/19/2004

Deliverables	Activity	Due Date
Final videotaping	Design team will view and add any missing video components due to time constraints.	11/20/2004
Prototype A	Client test and revise	11/22/2004
Prototype B	Revised prototype User test and revise	12/01/2004
Final Delivery	Finished Prototype and other deliverables	12/07/2004

Project Assumptions

The project development timetable and budget will be based upon the assumptions below.

Client will provide:

- Timely provision and review of materials, content, and field experts.
- Consultation with project team to develop a consistent look-and-feel to coincide with company standards and objectives.
- Agreement upon content and media assets presented by the design team.
- Reimbursement for supplies.

Design/Production Team will provide:

- Timely delivery of documents, mockups, prototypes, and facilitation of project meetings
- Prototype
- Production and style guides
- Assets, including images, design files, etc.

As the signature of this document, we hereby agree to the conditions as specified above.

Dolores Moorehead, Lymphedema Team Client Liaison

Date Signed