



An Interactive Prostate Cancer Decision Support System

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Abbreviated Abstract

Prostate cancer is the most frequently diagnosed cancer in men. Treatment decisions are extremely complex, varying by age, stage of disease, and personal preferences. Side effects can be serious and long-lasting, affecting a man's sexual function and continence. Although physicians can recommend treatment options, men must decide which treatment they will undergo. However, no comprehensive tools exist to guide men, their partners, and their physicians through a shared decision process. This Phase II project will complete *Charting Your Course*®, a CD-ROM and Internet system that educates men with prostate cancer and their partners, guiding them to a treatment decision. The prototype product increased knowledge on topics covered in depth (i.e., staging and brachytherapy). Testers also approved the concept behind the decisionmaking and physician communication components. In Phase II, we will (1) complete the script and audiovisual assets; (2) produce *Charting Your Course*®; (3) field test the product; and (4) prepare a launch plan with the American Foundation for Urologic Diseases (AFUD). *Charting Your Course*® can be used with a home computer, in an outpatient setting, or in a support group to help men and their partners compare treatment options, explore their personal preferences, and interact more effectively with their physicians.

Primary Investigator

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Total Budget

\$1,069,571

Research Objectives

AIMS

- 1) Identify information needed for CD-ROM and Web-based products.
- 2) Produce a complete set of materials for *Prostate Cancer: Your Decision Notebook*®, including the CD-ROM, Internet-based information, and written materials for patients, their partners, and their physicians.
- 3) Test *Prostate Cancer: Your Decision Notebook*® with prostate cancer patients and their partners.



- 4) Expand HealthMark Multimedia's relationship with AFUD to launch and market *Prostate Cancer: Your Decision Notebook*[®] to AFUD's constituency.

Theory/Hypothesis

Compared to men receiving written brochures, men who use *Charting Your Course*[®] will:

- Report increased self-efficacy in participating with their physician(s) in the treatment decision.
- Demonstrate increased knowledge about (1) the treatment procedures and (2) side effects of treatments.
- Demonstrate increased knowledge of the role of their partner, other family members, and friends in their treatment and recovery.
- Report increased intent to involve their partner, other family members, or friends in their treatment and recovery.
- Demonstrate increased knowledge of information resources and the relative value of different types of information (i.e., peer-reviewed literature vs. unsupported personal opinions on the Internet).

Experimental Design

Subjects were randomized into the experimental or control group after eligibility had been determined, and prior to administration of the pre-test. The experimental group was given the *Charting Your Course*[®]: *Prostate Cancer* CD-ROM; the control group was given the AFUD brochures. The pre-test was administered prior to distribution of the materials, and a post-test was administered 4 weeks after receipt of the educational materials.

Final Sample Size & Study Demographics

It was proposed that 100 subjects (50 in each group) would be recruited from support groups and physicians' offices in the Washington/Baltimore/Annapolis metropolitan area. Eligible subjects would be males, aged 40-75 years, who were within 6 months of diagnosis and had not made a treatment decision.

Data Collection Methods

Written pre- and post-tests

Outcome Measures

Users of the *Prostate Cancer: Your Decision Notebook*[®] CD-ROM are able to do the following:

1. Access information on currently accepted treatments, including procedure descriptions, pros and cons of the treatment, medical criteria, personal stories, and information for family and friends.
2. Access general information on the prostate, male anatomy, and prostate cancer.
3. Access screening and diagnostic procedures for prostate cancer.
4. Create a list of questions and reminders for discussion with the physician(s).
5. Access information about other prostate cancer resources (i.e., glossary, description of the medical team, and other Web resources via an Internet site available only to purchasers of the CD-ROM).
6. Assess and compare personal medical criteria and personal life issues for each treatment. Download new information about treatment options described on the CD-ROM.

Evaluation Methods

Using t-tests, change scores were compared for those in the experimental and control groups.

Research Results



Barriers & Solutions

1. Completion delay: We experienced a delay in completion of the product when our original programming contractor pulled out of the project after 2 years. The contractor was unable to produce a product that met our needs and expectations.
2. HealthMark Multimedia secured another contractor to complete the work. However, the lack of progress made in the first 2 years caused a delay of 10 months in product launch.
3. The change in contractors was costly and required that HealthMark Multimedia request additional funding from NCI and borrow funds to complete the product.

Product(s) Developed from This Research

Prostate Cancer: Your Decision Notebook[®], a CD-ROM for men recently diagnosed with prostate cancer. The CD-ROM educates patients on prostate cancer treatment options and addresses the health and personal consequences of prostate cancer and treatment.