Trainee Information
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Institution: MGH
Program: Urology
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PGY: 3

Proposal Information
Title: Improvements in post-operative education through audio-visual media

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RESEARCH NARRATIVE

Problem to be addressed: This project will examine the effects of audiovisual aids in post-surgical care on patient satisfaction, comprehension and post-operative complications.

Literature Review (1-2 paragraph summary and a maximum of 6 references): Medical care is often a black box for patients without a health care background. This is especially true for surgical care as patients are often inundated with technical information related to the procedure as well as the pre- and post-operative care plans which are required to ensure an optimal clinical outcome. While these procedures may vary from a minor day procedure to a very complicated procedure requiring a prolonged hospitalization, it is often unclear whether the patients fully comprehend the information that is delivered to them. In the United States, health illiteracy is a very common and costly problem. The National Adult Literacy Survey (NALS) identified that 44% of adults age 65 and older scored in the lowest of five skill levels in literacy. While this assessment did not include health related items, one can extrapolate that the literacy may be much lower given the complexity of medical care. The cost implications for poor health literacy in surgery are large as individuals may not understand how to take care of themselves in the perioperative period which leading to preventable office visits and hospitalizations. Health illiteracy itself was found to be an independent risk factor for hospital admission among elderly managed care enrollees even after adjusting for demographics, socioeconomic status, health behavior, chronic diseases and self reported health. This was estimated to cost $30-73 billion dollars annually. As the population continues to grow older and require more medical care, the costs are expected to increase. In 2012, the Institute of Medicine (IOM) brought together a roundtable to discuss health literacy. They determined ten attributes of health literate organizations. These included designing and distributing print, audiovisual, and social media content that is easy to understand and act on. While most institutions have excellent printed content about surgical pre- and post-operative instructions, this may not be enough to ensure appropriate delivery of pertinent information. In the inpatient setting, patients are often given written instructions which are reinforced by a health care professional. However, with the increased work load of physicians and nurses, a tremendous amount of variation exists in the information that is delivered and discussed with the patient. The development of audiovisual media that is easily comprehensible and readily available to patients during their hospitalization may be a more effective strategy.

The goal of this project is to develop brief audiovisual aids containing pertinent information related to the patient’s procedure and post operative care instructions that are usually provided in written format. The postoperative audiovisual media would deliver uniform messages to patients and allow them to review the material as frequently as they wanted during their admission. This may answer many of the common questions asked by patients prior to discharge and reinforce the information discussed with health care professionals. We will evaluate the effect of these audiovisual aids in improving patient comprehension, satisfaction and safety.

Study hypothesis: We hypothesize that patients who use the audiovisual information tools for perioperative care will be able to comprehend the perioperative care instructions better than patients who are given the instructions in written format.

Population: Our study will include all patients at MGH who are undergoing prostate debulking procedures and require an inpatient admission after their procedure.

Description of intervention or study design: Patients undergoing prostate debulking procedures (specifically photovaporization of prostate) will be randomized to two groups. The control group will be given the standard written post-operative instructions with additional information from a health care professional which is currently considered the standard post operative instructions. The experimental group will be given an iPad with audiovisual post-operative instructions with additional information from a health care professional. This group will have access to the audiovisual aids during their hospitalization and following discharge.

Description of comparison group (if relevant):

Outcome variable to be used to determine the efficacy of the intervention (if relevant): Patients will be given a survey at the end of their hospitalization to determine their satisfaction with the information that was provided to them, how comfortable they were with the information and performing the tasks at home. They will also take a quiz at the end of their inpatient hospitalization to assess their comprehension of the post-operative instructions. They will also be surveyed one to two weeks after their hospitalization to reassess comprehension of reviewed material. Outcomes variables will include a composite score from the quiz which will ask questions about the post-operative instructions as well as a score for patient satisfaction with the type of information source used during their stay. Additional information regarding the number of calls or pages to physician offices will be documented as well as the number of ED visits.

Power analysis to determine feasibility (when relevant):.

Timeline: The project will start once funding commences and will continue for 1 year.

IRB status of project: The protocol will be submitted for IRB.

BUDGET

Line item budget and budget narrative: Ipad x 3 ($600 each) $1,800 Video production (Animation, audiovisual production team) $2,100 Research assistant ($15/hr) $1,000 Office Supplies $100 Total $5,000 This project will require the availability of three Ipads, a video(animation) production team to ensure we develop high quality videos, a research assistant who can independently collect high quality data from surveys and phone calls as well as office supplies needed for the surveys.

Disclosure of other funding sources. (Will receipt of this grant augment or replace other funding sources for your research?) This grant would be sole source of funding.

OTHER

Previous COE involvement to date: I have talked to faculty mentors about different projects/mentorship and have attended the quality and safety journal clubs in the past.

Previous COE funding: