Objectives: The aim of this project was to identify and compare physician-perceived versus patient-experienced barriers to filling information prescriptions.

Methods: Physicians participated in a focus group designed to identify any issues linked to the implementation of the project. Telephone interviews were conducted with patients to gather details of the challenges encountered as well as to collect general health information-seeking practices.

Results: Although physicians identified several obstacles patients may encounter, it was not possible to identify patient barriers as no patient indicated having received an information prescription. In the focus group, physicians reported not using the term “information prescription,” thus undermining one of the intrinsic tenets of the project.

Conclusions: Although designed with the physicians’ input, the study results demonstrated a disconnect in the information prescription process. The addition of intervention fidelity measures may have ensured a more positive outcome.

INTRODUCTION

Since 1994 [1], research has suggested that informed patients fare better than patients who do not have health information [1–3]. In response to this recognition of the benefits of well-informed patients, medical centers and libraries have collaborated to provide patients access to health information through print or electronic media [2]. Furthermore, Americans increasingly turn to the Internet for health care information [4, 5]. Approximately 79% of adult Americans who search the Internet have searched for health information, making it the third-most popular Internet activity after email and researching products and services [5, 6]. Access to Internet health information has been reported to improve the way patients take care of themselves, help patients to better manage their illnesses, and help them make better, more informed choices [4, 7].

Information prescriptions are an attempt to provide patients with the opportunity to access evidence-based information that is specific to their needs via the Internet [2]. Although using the Internet to find health information has been beneficial for many patients, it is probable that not all patients are aware of the abundance of materials available. Physicians, as a main source of health information, are in the unique position of being able to recommend, or prescribe, online health information. Siegel reports that patients are open to accessing information prescribed by their physicians and were much more likely to trust MedlinePlus when prescribed by their physicians [8].

Unfortunately, some physicians who issue information prescriptions often do not provide them to all of their patients because of the barriers they perceive patients might experience. Common barriers suggested by the literature are economic (patients not having access to the Internet) and educational (patients not being able to comprehend the information provided) [2, 3, 7, 8]. Physicians also report concerns about a possible change in the nature and dynamic of their relationship with patients as another reason for not writing information prescriptions [4].

Despite the dearth of research substantiating the validity of the physicians’ perceptions of patient barriers, it is possible that many of the perceived barriers are not actual barriers. If not providing an information prescription is a consequence of physicians’ expectations, it is important to determine if patients actually encounter the expected barriers. Research suggests that some of these physician expectations are not accurate. For example, the Pew Foundation reported that...
income did not correlate with patients seeking information through the Internet, as many physicians expected [9].

VIRGINIA COMMONWEALTH UNIVERSITY INFORMATION PRESCRIPTION EVALUATION PROJECT

The Virginia Commonwealth University (VCU) Libraries’ Tompkins-McCaw Library for the Health Sciences supports an Information Prescription Program implemented by internal medicine physicians at VCU Health System’s Women’s Health Clinic at Stony Point. This program was designed to provide information prescriptions to patients in order to guide them in accessing quality health information. Participating physicians reported that they wrote each of their patients an information prescription. Based on this information, the authors were interested in exploring why patients would or would not fill their prescriptions, what barriers the physicians expected patients to encounter, and whether these barriers were indeed prohibiting patients from filling their prescriptions.

To identify expected and experienced barriers, the VCU Information Prescription Evaluation Project (the Evaluation Project) was initiated. Prior to beginning the project, the authors worked with the physicians to understand Information Prescription Program logistics, including how information prescriptions were presented to patients and which patients received information prescriptions. The authors designed the project based on details the physicians shared about how the established Information Prescription Program worked.

PROJECT METHODOLOGY

At the time of the project, five internal medicine physicians were at VCU Health System’s Women’s Health Clinic at Stony Point. All agreed to participate in the Evaluation Project. Their participation included continuing to write information prescriptions, informing the patients about the project, and agreeing to be a part of a physician focus group. The information prescriptions were written on customized prescription pads created by the American College of Physicians Foundation (ACPF) and the National Library of Medicine (NLM) to support physician referral of patients to MedlinePlus for quality health information [10]. These customized prescription pads look and feel like those used for prescribing medications, with the addition of the MedlinePlus URL address at the top.

Data collection

A focus group was planned to gather data from the physicians. The focus group protocol (Appendix A online) included questions concerning the physicians’ expectations of barriers that patients would experience filling the information prescriptions received from the physicians.

Concurrently, telephone interviews were planned to gather information from patients about their experiences filling information prescriptions. The telephone interview protocol included two sets of questions following the initial question of “Did you receive an information prescription?” If the patient had received a prescription, questions were designed to explore what, if any, barriers had been experienced. If the patient did not report having received an information prescription, no other questions were asked about the project. Additionally, all participants were asked questions concerning gathering health information, such as whether they search for information, where they look, and from whom they get health information. The questions were open-ended questions, with prompts for clarity (Appendix B online).

Patients were recruited through the use of recruitment flyers placed throughout the Women’s Health Clinic and through information provided directly by the physicians. Patients who indicated to their physicians they were interested in participating were referred to the researcher’s location, a table in the clinic waiting area that patients passed as they left the clinic. This location was also printed on the flyers posted throughout the clinic. Patients who stopped by the table were greeted by the researcher, informed of the project, and asked to participate. Those who agreed were asked to sign an informed consent form and to provide their name and telephone number where they could be contacted in three weeks. Each participant was given a canvas gift bag containing MedlinePlus and women’s health information to compensate her for her time and to thank her for participating in the project. Telephone calls were placed to each consented participant approximately three weeks after her clinic visit. If after a week of trying, the patient was not reached, she was dropped from the list and the name and contact information were destroyed. Similarly, after each telephone interview was conducted, the patient’s name and contact information were also destroyed.

Prior to any data being gathered, the lead researcher (Leisey) received approval from the VCU Institutional Review Board. Additionally, all participants signed an informed consent form, the patients to permit the interview telephone calls and the physicians to allow notes to be taken during the focus group. The researcher expected to compare and contrast the data collected from both patients and physicians.

Data analysis

Focus group data were collected by the two authors. Notes were taken by hand during the focus group and then typed and shared between the authors so that common themes and ideas shared by the physicians could be identified. Patient interview data were collected by the researcher by hand during the telephone interviews. After the telephone interviews were completed, the lead researcher culled common themes and ideas. The themes that emerged became categories in which the ideas expressed by the participants were sorted.
FINDINGS

Of the five internal medicine physicians participating in the Information Prescription Project, three agreed to take part in the physician focus group. All of the participating physicians agreed during the focus group that additional health information benefits patients, even though most patients do not access or use it. The most important barriers suggested by the physicians as reasons why patients do not access information included apathy and a lack of time. The physicians did not believe that most patients were interested in acquiring additional information. They felt that patients relied solely on the physicians to provide all pertinent information. The physicians reported that most patients, even if interested, would not have the time to find such information.

Although the physicians stated that they provided information prescriptions to all of their patients prior to the Evaluation Project, during the focus group the physicians reported actually providing an information prescription only to those patients for whom the information would be important, such as those patients with skeletal-muscular conditions or chronic health conditions. The physicians also shared that they did not refer to the information prescription as a “prescription” but simply as a suggestion that the patient may want to get more information.

A total of 110 telephone interviews were completed during the 6 months of the Evaluation Project. As the patients were contacted, a disconnect in patient and physician perceptions became evident. Although patients were getting referred for participation in the Evaluation Project, when the patients were contacted for interviews, they did not know that they had received an information prescription and therefore, could not answer any questions concerning barriers to filling an information prescription. Patient interviews were completed according to the evaluation project design despite this disconnect to maintain study integrity. After all surveys were completed, no patient reported recognizing the term “information prescription.” Only 14% (n = 16) of patients reported that their physician may have suggested accessing health information at some time, although not necessarily at the last visit.

DISCUSSION

During the focus group with the physicians, the authors came to understand that the implementation of the original Information Prescription Program was not what they expected or understood from prior conversations with the physicians. Although during the negotiations for the Evaluation Project, the physicians stated that they issued all patients information prescriptions, during the focus group, the physicians shared a different implementation of the Information Prescription Program.

One of the underlying assumptions of the Information Prescription Program was that physicians could facilitate the process of patients accessing quality health information using a prescription. A physician writing a prescription for a patient has the connotation that what is prescribed is necessary and important for the patient. From the authors’ perspective, a prescription is a mandate for the patient, not a suggestion of something that may be beneficial. Not informing the patients that they were being given a prescription undermined the building blocks of the Evaluation Project. The finding that the patients were unaware that they had been “prescribed” information may actually be the biggest barrier to patients filling information prescriptions, as it is not possible to fill a prescription that is not perceived as having been issued.

The findings of the Evaluation Project identified what could be considered a lack of intervention or treatment fidelity, making an effective evaluation impossible to conduct. Treatment fidelity, the accuracy to which intervention protocols are implemented [11], provides the basis for an evaluation to assert the validity of the reported findings [12]. In this instance, lacking provision of the intervention, providing an information prescription without using the “prescription” language, resulted in the researcher’s inability to understand the real and perceived barriers involved in filling the prescriptions.

Because the Information Prescription Project was developed with the underlying assumption that patients would be more likely to fill an information prescription than access health information their physicians merely suggest, not emphasizing this important component of the Evaluation Project with the physicians resulted in the researcher’s inability to complete the project as designed. Moncher and Prinz [12] suggested a number of treatment fidelity dimensions that, had they been applied, might have enabled the Evaluation Project to succeed. When the project was begun, training and written instructions for continual reference throughout the evaluation period could have been provided to the physicians so that they understood the importance of this aspect of the intervention. Once the project was underway, an additional strategy, sampling to ensure compliance, could have been planned as part of the study design to ensure the success of the project. Sampling the patient participants to ask if they had received an information prescription at the point of consent, would have informed the researcher as to whether the patients were aware that they had received information prescriptions. It would then have been possible to explore whether or not the prescriptions were filled and the barriers encountered in the process.

While designing the project, the authors met with the physicians a number of times to discuss the intention and design of the project, with each physician providing instrumental suggestions throughout the design phase. In retrospect, the physicians’ attitude concerning the information prescriptions was, and continues to be, quite positive, thus failing to explain the disconnect between what was expected and what occurred. It could be that the problems with the project’s implementation are very similar to the barriers physicians expect patients to experience when at-
ttempting to fill an information prescription. These barriers could be the physicians’ lack of time or understanding of the importance of the process. If these are true barriers, the authors believe that attending to the dimensions of treatment fidelity mentioned above would greatly improve similar projects.

CONCLUSION

Information prescriptions as a health care intervention provide a unique opportunity for health care consumers to become more actively involved in the health care services they receive. Much still needs to be learned about how information prescriptions can be used effectively and efficiently. As demonstrated by the Evaluation Project, however, it is important to ensure that the intervention is implemented as expected to evaluate the effectiveness of the intervention and to be able to assert that the independent variable did cause the measured outcome.

As consumer health librarians continue to explore ways to provide health information, reporting on lessons learned continues to be important. The last phase of research, dissemination, is imperative to the continued development of what is known and understood about facilitating the process of patient empowerment through the use of health information prescriptions, even when projects do not work out as planned and anticipated. Additionally, partnerships between physicians and consumer health librarians are worth further exploration as the importance of health information and literacy continues to grow. Continued cross-disciplinary research will enhance the health care system’s ability to provide patients with the information they want and need.

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