ORIGINAL RESEARCH

Physician's Perspective & Influence on Patient Education Resources in the Waiting Room

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Context: This study was conducted to gain a better understanding of physicians' roles and perspectives of education in the waiting room.

Objective: To date little empirical data exists assessing physician preferences on use of education resources in the waiting room. This study is designed to examine physicians' preferences for use, their role in selection, their perception of patients' satisfaction with resources, and differences among patient population.

Methods: This study used an anonymous online survey developed by the researchers and provided to physicians through the ACOFP mailing list. Using a 5-point Likert scale, physicians' opinions of patient education materials in the waiting room and perceptions of patient satisfaction were assessed. Subjects were also asked what type of education materials they use in their waiting rooms.

Results: In total, 50 surveys were collected. A bivariant Pearson correlation was used to analyze the data obtained. Early results indicate physicians with the ability to select the materials for the waiting room have greater satisfaction with the waiting room ($r=.278$, $p=.05$), spend more time in the waiting room ($r=.50$, $p<.001$) and report that more patients ask about educational items that are presented in the waiting room ($r=.38$, $p=.006$). It was also found that male physicians were more likely to endorse a "relaxed" waiting room ($F(2, 48)=.4223$, $p=.045$) and endorsed a greater ability to select the materials in the waiting room when compared to females ($F(2, 48)=6.960$, $p=.011$). Also of note, these materials are viewed as less beneficial in practices with higher proportions of Hispanic patients ($r=-.51$, $p<.001$), younger children/adults (age 0-21) ($r=-57$, $p<.001$), and practices that accept higher rates of Medicare ($r-.34$, $p=.021$).

Conclusion: These data have the potential to inform medical organizations both of the desired role physicians wish to play in educating their patients and which materials are preferred. However, these preliminary results warrant further exploration of physicians' preferences based on practice setting and patient populations.

INTRODUCTION

The waiting room of a physician's office has, particularly in recent years, been utilized as an occasion to educate patients. Modalities include posters, signs, handouts, television programming, and advanced technology (e.g. tablets, apps). Previous studies have investigated the effectiveness of educational materials in the waiting room[1,2] as well as patients' perspectives of their use. While some acknowledge it is an opportunity for education, others prefer a relaxing environment intended to decrease stress and boredom.[3] Mitigating anxiety in the waiting room has been the focus of prior investigations,[4] and results suggest a positive correlation between an enjoyable experience in the waiting room and overall satisfaction with their healthcare provider.[2] Other investigations have examined the effectiveness of targeted materials in medication compliance[5] and knowledge of medical conditions.[6,7,8] While these findings are beneficial to understanding the use of educational materials, information about which materials physicians feel are most effective for their patients while in the waiting room is scarcely available.[9] Further, much of this prior work has been conducted in the hospital setting[10] rather than primary care offices. To date, little empirical data has been gathered to assess the degree of influence physicians with varying statuses (e.g. practice owners v. non-owners) have on the educational materials selected for the waiting room. To this end, the authors of this study investigated primary care physicians' role and their perspectives of the value of education in the waiting room.

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METHODS

A 20-item survey was provided to physicians through ACOFP mailing list as an embedded hyperlink that redirected them to a secure Qualtrics questionnaire. All responses were anonymous. The survey was developed by the authors with items 1-12 ascertaining physician characteristics (e.g., age, sex, number of years since residency), the nature of the practice environment (hospital owned, academic, private, etc.), the location of practice (urban, suburban, rural), the types of materials provided in the waiting room, and basic information about client-base (percentage served in specified age, ethnicity, & insurance categories). Items 13-20 required physicians to rate their agreement on a 5-point Likert scale (strongly disagree to strongly agree) with statements reflecting attitudes towards the function of waiting rooms (i.e., relaxation, educational), perceived client response to the waiting room environment, and perceived/desired ability to influence the types of materials in the waiting room. This questionnaire will be made available to researchers upon request to the first author.

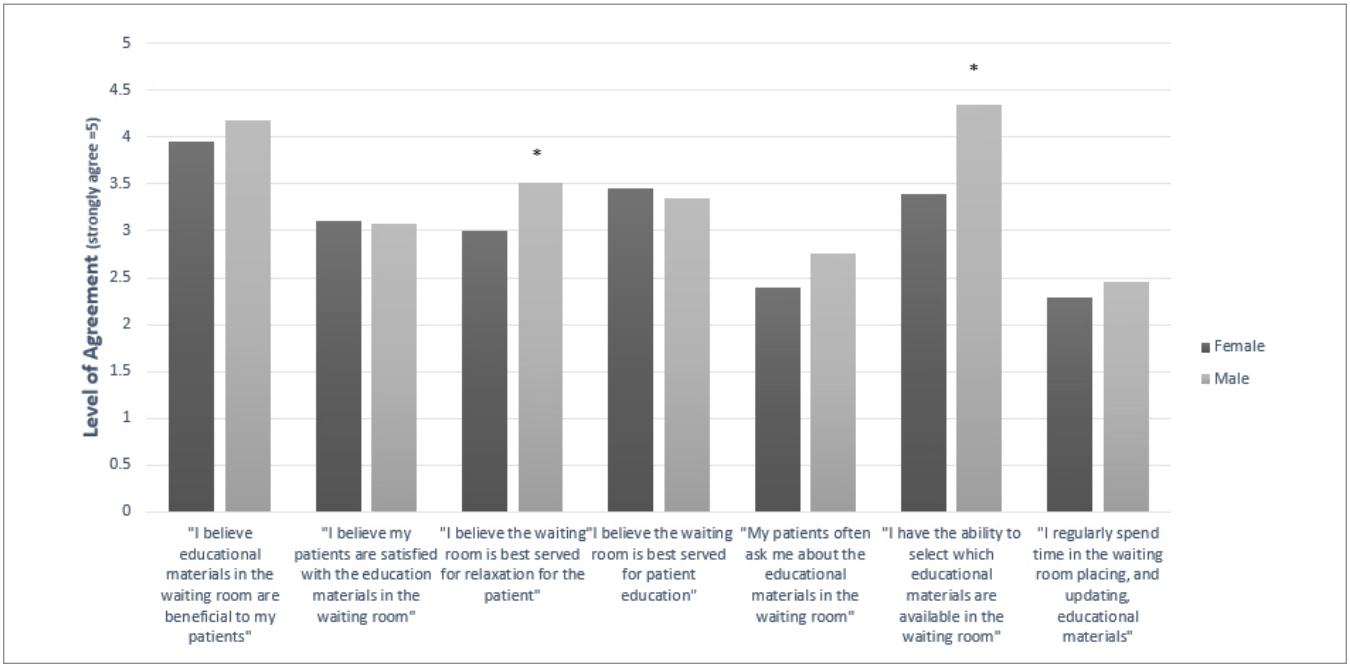
RESULTS

In total, 50 surveys were collected. Of the respondents, 29 were male and 20 female (one did not indicate sex), there was a mean age of 49 (SD 10) with 19 years (SD 11) since residency. Bivariate Pearson's correlations suggest that a physician's attitude about the function of the waiting room (i.e., education vs. relaxation) was strongly associated with the perceived benefits of these materials (r=.41, p=.003; vs negative correlation of r=-.40, p= 004). In addition, physicians that believe the waiting room is best suited for patient education vs. relaxation reported that their patients were more likely to enquire about educational items in the waiting room environment (r=.32, p=.023 vs. r=.24, ns). Clinicians that have the ability to select the materials for the waiting room reported that their patients were more satisfied with the educational materials provided in the waiting room (r=.278, p=.05) and report that more patients ask about educational items in the waiting room (r=.38, p=.006). Years since residency and physician's age did not correlate with any of the variables in the questionnaire. A composite score was created for the types of materials included in waiting rooms (i.e., pamphlets/handouts, posters, health magazines, television with medical programing, materials provided by pharmaceutical reps). One point was assigned for each type endorsed. Greater variability of educational materials was associated with perceived patient satisfaction (r=.325, p=.024) and an increased frequency of patients asking about those materials (p=.399, r=.005). Also of note, these materials are viewed as less beneficial in practices with higher proportions of Hispanic patients (r=-.51, p<.001), younger children/adults (age 0-21) (r=-.57, p<.001), and practices that accept higher rates of Medicare (r=-.34, p=.021).

One-way ANOVAs were used to examine group differences. Results examining physicians' gender (see Figure 1) suggested that male physicians were more likely to endorse a "relaxed" waiting room (F(2, 48)=.4223, p=.045). Male physicians also endorsed a greater ability to select the materials in the waiting room when compared to females (F(2, 48)=6.960, p=.011). No differences were found in the types of educational materials provided (etc.), or satisfaction with the waiting room, across clinic setting (i.e., suburban, urban, rural). Not surprisingly, physicians that owned stake in their practice were more likely to have the ability to select materials for the waiting room (F(2, 48)=10.794, p=.002) and spent more time in the waiting room (F(2, 48)=4.650, p=.036) than non-owners.

FIGURE 1:

Comparison of Physician Gender & Responses Regarding Waiting Room Materials.
*ANOVA results, p<0.05



DISCUSSION/CONCLUSIONS

These data have the potential to inform medical organizations both of the desired role physicians wish to play in educating their patients and which materials are preferred. In a recent study, respondents were often unfamiliar with the waiting room environments their own patients spend time in.[11] Our findings indicate that physicians with the ability to choose education materials in the waiting room perceived better patient satisfaction with the waiting room than physicians without that ability. These same physicians were also found to spend more time in the waiting room themselves and were more likely to have patients ask about the education materials. It was also noted that as the variety of materials increased, so too did physicians' perceived patient satisfaction and questions asked by patients. Physician gender was found to be an important variable in this study. Results indicate that while male physicians more often have the ability to choose education materials in the waiting room, male physicians also indicate a preference for the waiting room to be used for relaxation.

Interestingly, in practices with higher rates of Hispanic patients, pediatric/young adult patients, and Medicare patients, physicians' perceived value of education materials was less than practices with lower rates of these populations. Common barriers to improvement cited by providers included diverse language and literacy backgrounds in the patient population.[11] Our findings suggest this difference may be associated with language barriers, availability of multilingual and age appropriate education materials. In relation to Medicare patients, prior research has shown that with appropriate use, education in the waiting room can lead to better patient medication adherence and higher quality of life scores.[12] This is especially important with the development of Medicare Access & CHIP Reauthorization Act of 2016 (MACRA) to ensure patients receive enhanced resources directly from their providers to assist with chronic health conditions.

While these initial findings suggest education materials may be valuable to the waiting room experience and in physicians' interaction with patients, further exploration of these associations is necessary. This study is limited by small sample size and correlational design. An experimental design may be useful in correcting for any possible bias' present among physicians' perceived value of education materials. Future studies should investigate how number of available materials and appropriateness of these items are associated with patient questions. These initial results suggest use of these resources may contribute to more conversations with physicians regarding overall health. Additionally, examination of patients' perception of the value of education materials is warranted. Some suggestions of improving the waiting room in a primary care setting include Waiting Room Managers, validated questionnaires, educational materials, and restructuring the waiting room.[13] While more research is needed to better understand the value of education materials, the findings of this study suggest these resources may be beneficial in increasing physicians' interactions with the waiting room and improving patient experiences.

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