



Collaborative Improvement of Educational Materials in a Primary Care Clinic Waiting Room

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Collaborative Improvement of Educational Materials in a Primary Care Clinic Waiting Room

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Abstract

The increasing burden of chronic diseases in the United States presents a major challenge to the nation's primary care systems, so improving the efficacy and efficiency of patient education is an important goal. Understanding the current perspectives, practices, and needs of primary care providers should guide innovation towards this end. As a part of the authors' ongoing quality improvement work, a short internet survey was an effective method of enhancing this understanding in one health care system. With a response rate of 24.6 %, the survey revealed that primary care waiting rooms in the health system studied are not conceived of or used by providers as spaces to engage patients in health education. To change this, providers suggested using both printed and technological methods for delivering health information, primarily related to medications, diabetes, and healthy lifestyle practices. Common barriers to improvement cited by providers included diverse language and literacy backgrounds in the patient population, as well as difficulty sustaining change due to infrastructural and administrative barriers. These results suggest steps for development, implementation, and investigation of new educational interventions for patients in the local primary care context.

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Author Contributions

As first-author, I (N.B.) was the primary member of the team involved in study design (e.g. writing protocol and obtaining IRB clearance), execution (e.g. writing and administering survey), analysis (e.g. collecting, curating, and visualizing data), writing (e.g. drafting the entire manuscript), and submission for publication. I was supported financially in this work by the Harvard Medical School Center for Primary Care.

The second author (M-L.J-B.) was the clinical expert embedded in the study setting, who shaped the design and execution that I carried out in this work. She also provided feedback on the survey instrument and the manuscript drafts that I produced. The third author (A.K.) served as a qualitative methods expert consultant who advised the other authors at all stages, from design to writing. She also provided feedback on the survey instrument and manuscript drafts I produced.

Comments

On Methodology

This survey study utilized a non-probability convenience sample of providers who responded to invitations delivered through internal institutional email distribution lists. This approach was able to generate participation quickly and in high volume, but has limitations such as significant risks of response and non-response biases. Nonetheless, this manner of convenience sampling for surveying healthcare providers is routinely employed in quality improvement and research

studies, in spite of the recognized limitations, and with similar yields [1,2]. Monetary incentives, mailed surveys, and more frequent reminders for non-responders have been identified as effective strategies for increasing participation among physicians, which could be considered in follow-up studies [3,4]. Probability sampling could also capture the population in a more rigorous manner, but for this purposes of initially exploring the institutional milieu, convenience sampling was judged to be sufficient.

Word clouds of participant responses were a major component of the thematic analysis and data visualization employed in this study, as they allowed quick extraction and presentation of the most frequent words in responses. This somewhat unconventional methodology has gained popularity in recent years due to greater ease of computerized execution as compared to traditional analytic methods. At the same time, there are unique limitations such as loss of context, failing to group related terms, and handling of misspellings [5,6]. There is precedent for the formal application of this method in scientific and quality improvement study settings [5–9]. Presentation format and precise analytic method (e.g. number of words to display, relative sizing and position) are unstandardized and open to preference, and in this study, larger clouds were chosen for aesthetic reasons. These clouds were not used alone for generating results, but they helped to confirm the results of the manual analysis of the participant responses for themes.

On Patient Perspectives

The survey project submitted herein was part of an overarching effort to enhance patient education, with an interest in utilizing waiting time more thoughtfully. As a part of this effort, we carried out a companion project to this survey, which investigated Haitian patient perspectives on education and waiting. A manuscript describing qualitative findings from interviews and focus groups has been drafted and is under review by my co-authors, though it is not yet ready for release for Scholarly Project purposes. The roles in that work were essentially the same as described above, with the addition of another contributor (Sarina Dutta, B.A.; Columbia University Medical Center) who consulted on methodology and drafted portions of the manuscript as well.

We hope to finalize and submit that companion manuscript for publication by the summer of 2017, potentially in the *Journal of Community Health* again. As of March 2017, the working title for this manuscript is *“Waiting To Be Seen”: Haitian Immigrants in a Primary Care Waiting Room*; the working abstract is as follows.

BACKGROUND: Haitian immigrants comprise one of the populations bearing a disproportionate burden of diabetes in the United States. Contextually attuned health education interventions provided during unused waiting time in clinics may help to alleviate this disparity. To develop such interventions successfully, efforts must be made to understand local conditions and perceptions. This exploratory project seeks to facilitate contextually attuned improvement of health education by deepening understanding of (1) how local Haitian immigrant primary care patients perceive the waiting room, and (2) what their preferences are for education therein. **METHODS:** Semi-structured interviews and focus groups with a convenience sample of Haitian primary care patients at one community health center in Cambridge, Massachusetts. **RESULTS:** There were twenty participants, with mean age of 69 years, and low written and technological literacy. The wait for some was a negative experience characterized by a lack of engagement or of interpersonal contact. They desired simple multimedia education about relevant topics such as diabetes management and medication access, and they wished for their providers to participate in its creation. **CONCLUSION:** We elucidate the perceptions and desires of sample of local Haitian patients, facilitating the development and improvement of health education interventions that are humanistic, appropriate, and efficacious.

On Implementation and Future Work

As a result of these parallel information-gathering endeavors, we developed a 10-minute audiovisual intervention in Haitian Creole that delivers education regarding diabetes mellitus pathophysiology and nutritional guidance. It is available on YouTube

(<https://www.youtube.com/watch?v=E9ewosdJAHE>) so that it can be offered in examination rooms as patients await their providers. A small-scale pilot of this intervention was carried out with 22 patients and demonstrated statistically significant improvements in knowledge of diabetes and nutrition on immediate pre-/post-testing; the authors aim to write up this result in a future manuscript.

Follow-up work that remains to be completed includes further piloting of the audiovisual intervention, feedback collection from patients and providers, development of further interventions, and increasing integration of such deliverables into clinical workflow. This work may be carried out by existing members of this project team, but it is also open to participation by other medical students and trainees, who may be able to build productively off of the ground work we have laid.

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Title

Waiting Room Education in a Community Health System: Provider Perceptions and Suggestions

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Abstract

The increasing burden of chronic diseases in the United States presents a major challenge to the nation's primary care systems, so improving the efficacy and efficiency of patient education is an important goal. Understanding the current perspectives, practices, and needs of primary care providers should guide innovation towards this end. As a part of the authors' ongoing quality improvement work, a short internet survey was an effective method of enhancing this understanding in one health care system. With a response rate of 24.6 %, the survey revealed that primary care waiting rooms in the health system studied are not conceived of or used by providers as spaces to engage patients in health education. To change this, providers suggested using both printed and technological methods for delivering health information, primarily related to medications, diabetes, and healthy lifestyle practices. Common barriers to improvement cited by providers included diverse language and literacy backgrounds in the patient population, as well as difficulty sustaining change due to infrastructural and administrative barriers. These results suggest steps for development, implementation, and investigation of new educational interventions for patients in the local primary care context.

Keywords

Community health centers; health education; clinical staff perceptions; waiting room

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Background

The prevalence of diabetes, hypertension, depression, and other chronic diseases in the United States population is high and rising, with minority groups and those of low socioeconomic status disproportionately affected [6, 14, 16]. This rise is outpacing the growth of the nation's primary care system [15].

As demand for care grows, time spent in the waiting room has come to exceed time spent with a physician on average [5, 19]. While this fact is frustrating for providers and patients alike, it also challenges those in the system to rethink the waiting room space and time, to imagine new possibilities for it, and to incorporate it into the system of care provision as a tool, not a necessary evil. Doing so has been recognized as an easy opportunity for high yields that is not regularly taken advantage of [18].

One way of taking advantage of this opportunity and also of off-loading providers is to shift more health education out of the patient-clinician dyad into the waiting room. Health education is a valuable target for intervention because it has been clearly shown to improve patient activation, self-efficacy, and outcomes in chronic disease [1, 17], yet it is one of the interventions that is most curtailed by time limitations [2]. Supplementing the education provided in the patient-clinician dyad should allow for more control of time allocation and for more personalized discussions that go deeper than basic health facts.

Printed educational materials are commonly offered in waiting rooms, but their efficacy has been shown in studies to be highly variable, and dependent upon the specific contexts, populations, and formats involved [10, 13, 21]. Beyond printed materials, there has been a lack of innovative

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approaches to education in the waiting room that both robustly utilize available technologies and also attempt to reach underserved groups [9]. Thus, maximizing the appropriateness and efficacy of educational resources for underserved populations requires assessment of the context and thoughtful choice of format.

In order to set the stage for quality improvement and innovation of patient education resources, technologies, and methods in the primary care clinics at the authors' home institution, the authors sought to understand primary care provider perspectives. Herein follow the results of a survey querying provider perceptions, practices, and preferences relating to waiting rooms and relating to possibilities for improving patient education.

Methods

This study employed a non-experimental, exploratory survey design utilizing a convenience sample of healthcare providers within the authors' home institution (Cambridge Health Alliance, CHA). It was carried out as part of the information-gathering phase of longitudinal quality improvement work and practice innovation taking place at CHA, which draws upon methods from community-based participatory research [20].

Setting

CHA is an academic community health system in the state of Massachusetts that serves Cambridge, Somerville, and Boston's metro-north communities. It comprises three hospital campuses, a network of primary care and specialty practices, and the public health department for the City of Cambridge. It is also a teaching affiliate of Harvard Medical School, the Harvard T.H. Chan School of Public Health, the Harvard School of Dental Medicine, and the Tufts University School of Medicine. The CHA primary care network includes over 100,000 patients

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representing a broad array of nationalities, ethnicities, and socioeconomic statuses. Some of the more commonly spoken foreign languages amongst CHA patients are Haitian Creole, Portuguese, Spanish, Arabic, and Bengali.

Survey

The instrument used in this study was created ad hoc, as no instruments were known which elicit the desired information. A draft of the survey was piloted with a small group of providers to improve wording and smoothness; the final versions of the survey items are given in Table 1. After asking for consent, provider type, and practice location, the survey consisted of two sections: ‘How are things now?’ and ‘How should things be?’. The survey items were written to elicit provider perceptions of patient experiences of waiting, of the availability and utilization of health education resources, and of ways to improve educational resources at CHA. In light of an electronic intervention that was being developed at the time of the study, a survey item also specifically requested an estimate of the proportion of patients who would be able to interact with tablet-based multimedia interventions. Additional space for comments was provided at the end of the survey.

{TABLE 1}

The authors’ clinical work to date has related primarily to adult primary care, and so the survey was targeted to patient-facing staff involved in primary care, though specialist input was not discouraged or excluded. The survey was deployed to three email distribution lists at CHA: the department of medicine list, the department of family medicine list, and the nursing list. The survey was administered anonymously and confidentially. No rewards were offered for participation and no penalties were applied for declining to participate. The online survey ran for

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one month, hosted on the cloud-based survey development service, SurveyMonkey (www.surveymonkey.com). Two reminder emails were sent after the initial invitation, several weeks apart.

Analysis

Summary statistics are provided for the integer estimates of minutes spent by patients in clinic waiting rooms, and for the estimated percentage of patients that might be able to use a tablet computer. For survey items asking participants to select on a scale, frequencies of each response are presented. Additionally, responses of physicians and of nurses were separated and compared using t-tests or chi-squared tests in Microsoft Excel.

Free responses were analyzed en bloc for word frequencies. When these frequencies were illustrative, they were rendered as word clouds using a free online platform (www.wordclouds.com), with larger size in the clouds indicating greater frequency of word appearance. Frequencies of key words pointed to themes, and line-by-line analysis of individual responses also allowed for confirmation and further clarification of themes, as well as identification of representative excerpts.

Ethics

The study protocol was reviewed by the Institutional Review Board of Cambridge Health Alliance and declared a quality improvement study with minimal risk to participants. Prior to responding to the survey items, potential participants were presented an opt-in consent page explaining the study purpose, benefits, risks, confidentiality, ethics approval, and author contact information. Demographic questions beyond provider type and practice location were not used in the survey so that participants would not perceive any unnecessary risk to anonymity.

Results

{TABLE 2}

Out of 597 identified potential participants within the email distribution lists, a total of 147 responded substantially. Thus, the overall response rate was 24.6 %. The majority of respondents (87 %) indicated that they were primarily involved in primary care provision. Nineteen respondents (13 %) indicated that they were primarily involved in some manner of specialty care, such as orthopedics, gastroenterology, labor & delivery, or post-anesthesia care.

Many different types of professionals responded. The largest sub-group was registered nurses (44 %), followed by physicians (29 %). Respondents reported practicing at a number of different settings within CHA, many splitting their time between settings. The most frequent settings reported were health centers (40 %), hospital-based ambulatory clinics (16 %), and hospital in-patient services (13 %). Respondent characteristics are summarized in Table 2.

“How are things?”

Providers estimated an average patient wait time of 23 minutes (range: 0-120 minutes). Estimates were normally distributed with a standard deviation of 14 minutes and a single outlier of 120 minutes. There was no significant difference between the estimates of physicians and those of nurses (t-test, $p = 0.22$).

During the wait, providers thought that most patients were using their cellphones to talk, text, or browse the internet (59 %); reading magazines, books, or brochures (31 %); idling (e.g. “doing nothing”, “just waiting”, “staring”, “sleeping”) (20 %); and attending to children (10 %). The word cloud analysis of provider hypotheses of patient waiting behavior is depicted in Figure 1.

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{FIGURE 1}

When asked to recall the educational resources available to patients in the waiting room and elsewhere in the clinic, providers frequently described printed materials such as brochures or pamphlets (26 %), poster or flyers (15 %), and magazines (14 %). Some mentioned televisions or monitors (20%) displaying news programs, general information about CHA, or current waiting times. Notably, many providers (22 %) could recall and name no available resources. The word cloud analysis of the responses regarding available resources is shown in Figure 2.

{FIGURE 2}

When providers were asked if and how often they refer patients to these resources, most responded that they never do (78 %). Less than 10 % of providers said that they referred to these resources at least several times a week (see Fig. 3). There was no significant difference in the proportion of frequent, occasional, and rare referral behavior between physicians and nurses (chi-square test, $p = 0.29$).

Most providers felt that the waiting rooms at CHA provide little or no educational value to patients (71 %), while only a minority (11 %) felt that they provide a substantial amount (see Fig. 4). There was no significant difference between physicians and nurses in the proportions appraising as no-value, low-value or moderate-value, and high-value (chi-square test, $p = 0.63$).

{FIGURES 3 & 4}

Given this context, providers reported the types of clinical education they found themselves repeating most often with patients. Healthy lifestyle practices were a very common topic: 40 % of responses related to food, nutrition, diet, and/or exercise. Many responses also included issues

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related to medications (25 %), such as how to take them, adverse effects, how to obtain refills, and the importance of compliance or adherence. Almost as many responses (24 %) related to diabetes mellitus; glucose monitoring, basic pathophysiology or natural history, and specific lifestyle modification were main sub-topics. Other common topics were smoking cessation, asthma management, hypertension management, and vaccination. The word cloud analysis of repeated teaching points is shown in Figure 5.

{FIGURE 5}

“How should they be?”

In considering how to improve patient health education, providers listed the kinds of information they would want their patients to learn about or review before visits. Frequently, they referred generally to the repeated teaching topics they had already listed in response to the previous survey item. Sometimes, they specifically named such topics as healthy lifestyle practices around food and activity (24 %), or medication use (17 %). Other responses related to age-appropriate screenings, vaccinations, clarifying chief complaints, and making visit agendas.

Having listed the education that providers wished their patients to obtain, they described ways that this education might be delivered in a waiting room setting. Many proposed utilizing technology to deliver audio, visual, or audio-visual experiences (45 %). Common examples were educational videos or slideshows on waiting room televisions or monitors, websites, or mobile applications. Others recommended continuing to provide health education via printed methods, such as posters and pamphlets (15 %). A small group proposed the use of human resources to answer questions, provide counseling, or lead educational demonstrations (3 %).

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As an alternative to any of these options, a few providers (2 %) suggested that the waiting room not be used for educational interventions at all. They cited the lack of privacy, the busyness of the space, and the potential stress associated with appointments to be reasons that an “engaging docudrama” or “calming music” might be more beneficial waiting room additions for patients. Another alternative proposition was focusing delivery of new educational interventions in the clinic examination rooms rather than in the waiting room, since there are already “computers in exam rooms” and ample time is “spent in exam rooms waiting for the MD after being checked in.”

Addressing the potential reach of an educational intervention specifically using tablet computers, provider estimates ranged widely as to what percentage of their target populations for teaching might be able to interact with a simple audiovisual presentation on a tablet computer, from 0% to 100%. The mean was 56 % with a standard deviation of 26 %. There was no significant difference between the estimates of physicians and nurses (t-test, $p = 0.84$). Notably, some respondents expressed reservations about the idea of tablet-based interventions because it “is gross for everyone to touch one screen, [it is] too small, [and it is] not loud enough for many”; or because a tablet computer could be “taken” when “left unattended.”

Along with their recommendations, many providers described perceived or experienced barriers to implementation of new educational interventions. A common caveat was that interventions would need to be available in multiple languages and formats due to the diverse language and literacy backgrounds in the CHA patient population (11 %). As one respondent noted, “language is the biggest barrier to providing instructions and getting information from patients.” Another noted that some of the “BIG problems” in trying to provide health information are both the “high

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percentage of patients who do not get their information by reading” and also the necessity for information in “at least 5 languages.”

Another commonly cited obstacle to introducing new educational interventions was difficulty achieving sustained infrastructural support or facilitation. For example, one respondent noted that “there is no designated person responsible for re-stocking the pamphlets, so it hasn't been sustainable” to introduce new ones. Another lamented that “right now we have empty bulletin boards in our exam rooms since the Joint Commission requires items in rooms to be laminated and it takes work by administrators to pick things and laminate them.” Similar concerns were cited with regards to more technological interventions: “we've tried interactive computer programs but they failed for lack of administrative support to help patients with the technology.”

{TABLE 3}

Discussion

Appreciation of the provider experience is an essential component of the contextual understanding that is requisite to effect quality improvement, and a short online survey was a rapid and effective way to obtain insights from providers regarding their clinical environments, available resources, patient education practices, and suggestions for change. The survey revealed that the primary care waiting rooms at CHA are generally not conceived of or actively used as spaces for providing health education to patients. In order to improve health education, providers suggested using both printed and technological methods for delivering information, primarily about medications, diabetes, and healthy lifestyle practices. Some suggested doing so in exam rooms as well as or instead of in waiting rooms. The barriers to improvement cited by providers

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included diverse language and literacy backgrounds of the CHA patient population, as well as difficulty sustaining change due to operational and infrastructural barriers.

These results suggest some actionable opportunities for the short-term. Respondents were often unfamiliar with the waiting room environments their own patients spend time in. Some providers may thus benefit from a review of their environment, which may have resources present that they have been under-utilizing. The authors are in fact aware of some well-written multilingual brochures and posters present in various CHA clinic waiting rooms, though they are not always in obvious locations. These may represent available resources that patients can start to be made aware of and directed to while they wait. Additionally, simply taking the time to reflect upon and realize what is most repeated or most misunderstood may lead providers to modify or streamline the resources or approaches they already utilize in their repertoires and environments. Furthermore, since waiting spaces were perceived by many not to be engaging, playing calming music or nature sounds in waiting rooms may be a quick and easy intervention to benefit patients, even while other types of additions are being developed to enhance the space. This kind of audio is well-demonstrated to decrease anxiety in waiting patients [4, 11].

In the context of the authors' long-term quality improvement work, the results of this study provide affirmation and guidance. The authors' recent educational work has focused heavily on culture-specific diabetes prevention and management (e.g. group visits and healthy cooking classes for Haitian immigrants with or at risk for diabetes, weekly radio segments in Haitian Creole). In designing further educational interventions for delivery in the clinic setting, this study suggests that diabetes continues to be an important area to focus on, and it highlights that the complex logistics of medication access and use may be important topics to discuss as well.

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While providers suggested what information ought to be taught, patients in the community can dictate how best to teach that information. Investing in understanding the knowledge-base and motivational profile of the patients in the local community can reveal what drives behavior change, and this can facilitate the tailoring of appropriate and efficacious interventions [3]. Therefore, drawing upon concepts from community-based participatory research [20], the authors have been working with CHA patients to learn about expectations, experiences, and desires regarding waiting, learning, and receiving care in the primary care clinic. The information gained from patients will offer further context alongside the results of the present study, which will guide the development of educational interventions. The authors suggest that such a collaborative approach is crucial to delivering and improving patient-centered care.

Limitations

Respondents all work within one health system and so these results have limited generalizability to other systems, where resources and practices may differ dramatically. As this study is part of a quality improvement effort, the intention was never to achieve broad generalizability; the intentions of reporting these results are to demonstrate methodology and to present poignant findings. This must be recognized when interpreting the results.

Even within CHA, however, the significant non-response rate (75.6%) allows for bias that could limit internal generalizability. Further email reminders and a longer collection period could perhaps have been employed to reduce this potential for bias. However, it is well known that physicians and other healthcare providers are difficult to engage with surveys, and response rates are regularly between 20-30% in this population the literature [7, 8, 12].

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Another limitation to this study is the lack of explicit definitions for concepts like “educational resources” and “clinical teaching”. Thus, there was potential for varying individual interpretations of these key concepts between respondents. Similarly, without following-up specific responses with interviews, participant observation, or ethnography, many concepts such as “diet” or “vaccination” are captured only broadly.

Compliance with Ethical Standards

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Conflict of Interest: The authors declare that they have no conflict of interest.

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Captions for Tables & Figures

Table 1 Survey items

Table 2 Professional characteristics of respondents

Table 3 Summary of survey responses

Fig. 1 Word cloud analysis of responses (N = 143) to Item 2 (“How do you imagine your patients spend their time while waiting for their appointments?”)

Fig. 2 Word cloud analysis of responses (N = 133) to Item 3 (“List whatever existing (non-human) educational resources available to patients inside the clinic and waiting room spaces you can recall.”)

Fig. 3 Responses to Item 4 (“Do you refer your patients to existing educational materials in the waiting room or clinic space?”)

Fig. 4 Responses to Item 5 (“Do you think the waiting room time currently offers educational value to patients?”)

Fig. 5 Word cloud analysis of responses (N = 132) to Item 6 (“What kind of clinical teaching do you find yourself repeating with different patients most frequently?”)

Table 1 Survey items

Item	Response Type
<i>Page 1 – How are things</i>	
1. How long do you imagine your patients spend in the waiting room per visit on average?	Integer
2. How do you imagine your patients spend their time while waiting for their appointments?	Free response
3. List whatever existing (non-human) educational resources available to patients inside the clinic and waiting room spaces you can recall.	Free response
4. Do you refer your patients to existing educational materials in the waiting room or clinic space?	"Not at all" "Several times a year" "Several times a month" "Several times a week" "Several times a day" "Almost every patient"
5. Do you think the waiting room time currently offers educational value to patients?	"None at all" "A little" "Some" "A good amount" "Lots and lots"
6. What kind of clinical teaching do you find yourself repeating with different patients most frequently?	Free response
<i>Page 2 – How should things be?</i>	
7. What kind of information would you want your patients to learn about or review before their visits with you?	Free response
8. How do you think information could be better delivered to patients in the waiting room?	Free response
9. What percentage of the patient you would most want to reach do you imagine might be able to interact with a simple audiovisual presentation on a tablet computer?	Free response

Table 2 Professional characteristics of respondents

Variables	N	%
Total	147	100
Provider Specialization		
Primary care	128	87
Specialty (e.g. orthopedic, obstetrics)	19	13
Provider Type		
Registered Nurse	64	44
Physician	43	29
Nurse Practitioner	8	5
Physician Assistant	6	4
Certified Nurse-Midwife	2	1
Medical Assistant	2	1
Medical Student	2	1
Other	5	3
Unspecified	15	10
Primary Work Location		
Health center	59	40
Hospital-based clinic	23	16
Hospital ward	19	13
Emergency room	9	6
Community (e.g. schools, home visits)	5	3
Unspecified	32	22

Table 3 Summary of survey responses

Item	N	Summary of Responses
<i>How are things?</i>		
1	141	Patients are thought to wait 23 minutes on average for their visits.
2	143	Waiting patients are perceived to be using cell phones, idling, and caring for children.
3	133	If they could recall any materials, providers were aware of pamphlets, posters, magazines, and TVs or monitors.
4	144	Eighty-five percent of providers refer patients to these materials several times a year or less.
5	145	Seventy-one percent of providers felt there was little to no education value provided by the waiting room for their patients.
6	132	Providers find themselves most frequently teaching patients about healthy lifestyle practices, medications, and diabetes management.
<i>How should things be?</i>		
7	125	Providers would like patients to be able to learn about healthy lifestyle, medications, diabetes management, age-appropriate preventative care, and visit agendas.
8	122	Many providers proposed that multimedia presentations might be more effective than traditional printed education. Diversity of language and literacy backgrounds was cited as a barrier to developing new interventions, as was obtaining adequate administrative support.
9	118	Estimates varied widely as to what proportion of patients would be able to interact with a tablet-based educational intervention.
Responses of physicians and nurses were not statistically different.		

Fig. 3 Responses to Item 4 (“Do you refer your patients to existing educational materials in the waiting room or clinic space?”)

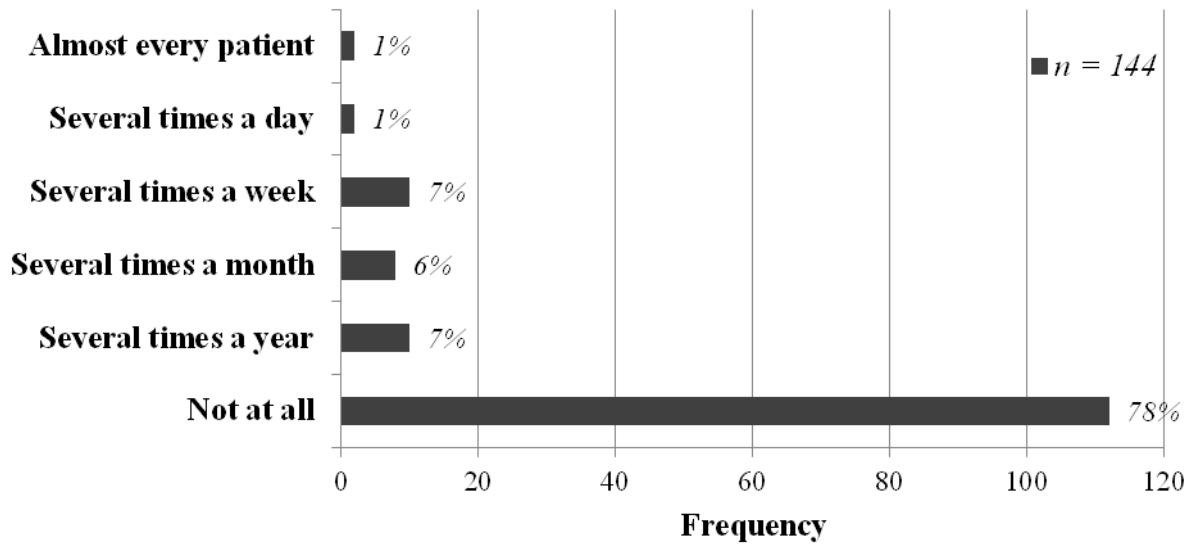


Fig. 4 Responses to Item 5 (“Do you think the waiting room time currently offers educational value to patients?”)

