



Emergency Department Utilization: A Qualitative Analysis of Illinois Medical Home Network Patients.

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Abstract

Background

Inappropriate emergency department (ED) use continues to plague healthcare in terms of disease management and costs. In 2012, the State of Illinois implemented Medical Home Network (MHN) where Medicaid recipients were assigned to primary care providers to, in part, reduce overreliance on EDs. However, MHN patients have continued to use EDs.

Objective

The purpose of this study is to provide a qualitative analysis of Medicaid patient-identified barriers to primary care, facilitators of emergency use, and related mental health and psychosocial factors.

Methods

Patients who presented themselves at the ED located at an urban, academic medical center participated in one-time, individual interviews. Participants arrived with non-urgent, minor, or moderate acuity. Interviews were digitally audiorecorded and transcribed for data analysis. Researchers analyzed data using the Grounded Theory approach.

Results

Four themes were identified: 1) barriers related to visiting a primary care provider (not having an appointment and scheduling issues), 2) elements of ED use (the experience of physical pain), 3) mental health and stress (a lack of willingness to discuss mental health issues), and 4) varying perceptions of primary care and the ED (the ED provides care that is fast, solution-oriented, team-based, and patient-centered within an environment containing necessary equipment).

Conclusions

Findings may inform interventions such as the use of community health workers as liaisons between MHN, the ED, primary care, and patients. Addressing patient perceptions regarding the role of primary care and stigma surrounding mental health can lead to decreasing ED use and increasing continuous primary care use for vulnerable patients.

Keywords

Emergency Department Use; Health Disparities; Medical Home; Patient Perspective; Qualitative Research Methodology

Cover Page Footnote

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ABSTRACT

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Conclusions: Findings may inform interventions such as the use of community health workers as liaisons between MHN, the ED, primary care, and patients. Addressing patient perceptions regarding the role of primary care and stigma surrounding mental health can lead to decreasing ED use and increasing continuous primary care use for vulnerable patients.

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INTRODUCTION

Despite recent healthcare initiatives to reduce emergency department (ED) use such as the Affordable Care Act (ACA) and Medical Home Network (MHN) in Illinois, patients continue to visit the ED (Glover, Purim-Shem-Tov, Johnson, & Shah, 2016; Rising, Padrez, O'Brien, Hollander, Carr, & Shea, 2014). Rates of patient visits to the ED have steadily increased with adult patients with Medicaid insurance disproportionately using the ED in comparison to patients with private insurance (Capp, Rooks, Wiler, Zane, & Ginde, 2014; D'Avolio, Strumph, Feldman, Mitchell, & Rebholz, 2013; Pines et al., 2011). Medicaid patients oftentimes visit the ED for non-urgent purposes (Capp et al., 2014; D'Avolio et al., 2013; Koziol-McLain, Price, Weiss, Quinn, & Honigman, 2000). As primary care settings are designed and equipped for non-urgent medical issues, ED visits for non-urgent complaints raise concerns regarding a potential lack of healthcare access (D'Avolio et al., 2013; Thorpe, Thorpe, Kennelty, & Pandhi, 2011) and disease management (D'Avolio et al., 2013; Howard et al., 2005) for low-income patients. Additionally, high financial costs associated with non-urgent ED visits continue to present a concern for the healthcare system (Enard & Ganelin, 2013; DeHaven et al., 2012; Wilkin, Cohen, & Tannenbaum, 2012). It has been shown that continuity of care can reduce healthcare costs (Pourat, Davis, Chen, Vrungos, & Kominski, 2015) and improve disease management (LaCalle & Rabin, 2010; Lukewich et al., 2014). Hence, the issue of directing patients from emergency care into primary care remains important and pressing.

Overall, a considerable body of literature exists regarding non-urgent ED use (Behr & Diaz, 2016; Butler & Johnson, 2016; Glover et al., 2016; McCormack, Jones, & Coulter, 2016; Pines et al., 2011; Tadros, Layman, Brewer, & Davis, in press). However, existent research has largely relied upon quantitative data sources such as medical and other administrative records (Butler & Johnson, 2016; McCormack et al., 2016; Pines et al., 2011; Rising et al., 2014; Tadros et al., in press). Studies have mostly taken the perspective of the provider or insurer (Butler & Johnson, 2016; D'Avolio et al., 2013; Greenfield et al., 2016). However, the patient perspective is necessary to provide a more complete understanding of non-urgent ED use; thus, allowing practitioners and researchers to develop new interventions and to modify existing interventions geared towards decreasing non-urgent ED use (D'Avolio et al., 2013; Glover & Purim-Shem-Tov, in press). Qualitative methods and related data can provide the much needed patient perspective (Cooper, Endacott, & Chapman, 2009; Glover & Purim-Shem-Tov, in press; Rising et al., 2014).

An emergent, albeit smaller body of literature has employed qualitative methods to understand non-urgent ED use from the patient perspective. Previous studies have indicated that patients lack timely access to primary care and experience trouble scheduling timely appointments with primary care providers (PCP) (D'Avolio et al., 2013; Howard et al., 2005; Lawson et al., 2014; Long, Genao, & Horwitz, 2013). In turn, patients have stated that they visit the ED to receive quicker services (Howard et al., 2005; Koziol-McLain et al., 2000; Lawson et al., 2014) especially when patients experience severe symptoms (Koziol-McLain et al., 2000; Lawson et al., 2014; Long et al., 2013). Patients have noted that they are sometimes directed to the ED by their PCP or urged by family and friends to visit the ED (Howard et al., 2005; Koziol-McLain et al., 2000; Lawson et al., 2014; Long et al., 2013). Some patients have expressed that EDs have the resources and expertise needed to address their issues (Lawson et al., 2014).

Researchers have commonly used individual interviews for data collection (D'Avolio et al., 2013; Elmqvist & Frank, 2015; Howard et al., 2005; Koziol-McLain et al., 2000; Lawson et al., 2014; Long et al., 2013; Olsson & Hansagi, 2001; Rising et al., 2014). Some data collection has taken place while patients were in the ED (D'Avolio et al., 2013; Lawson et al., 2014; Rising et al., 2014) while others were conducted once patients were discharged and in a non-ED environment (Elmqvist & Frank, 2015; Howard et al., 2005; Koziol-McLain et al., 2000; Long et al., 2013; Olsson & Hansagi, 2001; Stuart, Parker, & Rogers, 2003). Prior qualitative research has highlighted the ED experiences of vulnerable patients such as those with asthma (Lawson et al., 2014), older patients (D'Avolio et al., 2013), and the uninsured (Hefner, Wexler, & McAlearney, 2015; Koziol-et al., 2000). Despite high rates of Medicaid patients visiting the ED for non-urgent purposes (Glover et al., 2016), an insufficient amount of literature has used qualitative methods to explicitly and exclusively assess the perspective of Medicaid patients regarding their non-urgent use of the ED during patients' ED visits.

In 2012, the State of Illinois implemented MHN (<http://mhnchicago.org/overview.html>) to serve nearly 200,000 Chicagoans enrolled in Medicaid. MHN is a Chicago-based non-profit that partners with local providers to improve care coordination and health outcomes for Illinois Medicaid recipients. MHN aims to link patients to an exclusive PCP in order to: 1) reduce patients' overreliance on EDs, 2) provide a continuous source of healthcare, 3) improve disease management, and 4) reduce healthcare costs. By 2013, Chicago-based Medicaid recipients had selected a PCP within MHN or they were assigned a PCP within MHN.

A recent study has indicated that patients enrolled in MHN have continued to visit the ED for non-urgent purposes despite being linked to an exclusive PCP (Glover et al., 2016). The purpose of this qualitative study is to gain the perspective of Chicago-based Medicaid patients regarding non-urgent ED visits. More specifically, we aim to understand barriers to primary care and facilitators of ED use as indicated by Chicago-based Medicaid patients visiting the ED for non-urgent complaints. Patients took part in one-time, individual interviews while seeking care within an active ED setting. Current study findings can inform intervention development and modification regarding solutions to decrease non-urgent ED use while simultaneously increasing continuous primary care use.

METHODS

Sample

Researchers approached eighty adult patients who presented themselves at the ED of a large, urban academic medical center. Fifty patients agreed to participate and completed the study. Gender characteristics were obtained, while other participant demographic information was not collected due to the sensitive nature of the interviews. Study eligibility included: 1) belonging to MHN, as denoted within the ED's electronic medical record (EMR), and 2) presenting to the ED with non-urgent, low, or moderate acuity (Emergency Severity Index levels 3-5) (<http://www.ahrq.gov/sites/default/files/wysiwyg/professionals/systems/hospital/esi/esihandbk.pdf>). Recruitment occurred from June 2014 to January 2015.

Interview Guide

Study researchers developed the interview guide. The guide also contained potential prompts meant to initiate any follow-up questions. Previous literature (D'Avolio et al., 2013; Elmqvist & Frank, 2015; Glover et al., 2016; Howard et al., 2005; Koziol-McLain et al., 2000; Lawson et al.,

2014; Long et al., 2013; Olsson & Hansagi, 2001; Rising et al., 2014; Stuart et al., 2003) and the research purpose informed the interview guide. The interview guide was created and piloted with the first ten participants. After each pilot interview, researchers discussed the interview guide. Researchers revised the interview guide according to feedback from both participants and interviewers. Revisions consisted of wording changes, reordering of questions, and the addition of a content area.

The final version of the interview guide (See Appendix I) consisted of eight content areas: 1) knowledge of MHN and related aspects, 2) details of the current ED visit, 3) primary care use, 4) mental health and psychiatric factors, 5) barriers to primary care, 6) facilitators of ED use, 7) psychosocial factors, and 8) socioeconomic characteristics. The interview guide consisted mostly of open-ended questions and related prompts. However, there were embedded survey questions. For example, one survey question asked, “Have you heard of the Medical Home Network?”

The interview guide determined the minimum number of participants needed for the study. More specifically, a qualitative algorithm for determining sample size has suggested that at least five participants per content area are needed for a satisfactory sample size (Glaser & Strauss, 1967; Jorgensen, 1989; Spradley, 1980). The interview guide consisted of eight content areas. Hence, forty was the minimum number of participants needed for the study. However, study researchers oversampled until they reached saturation or where researchers heard the same patterns of responses from participants. Saturation was reached at fifty participants.

Procedure

Researchers conducted one-time, semi-structured individual interviews with participants. Researchers consisted of the first author and three study-affiliated research assistants who received extensive training. Researchers used the interview guide to facilitate interviews. The interview guide allowed researchers to address all necessary questions without being restrictive regarding the order of interview questions.

A researcher identified a patient’s MHN status and acuity level using the medical center’s EMR. The researcher then approached the patient for participation. The researcher described the study and, if the patient expressed interest, conducted the complete informed consent process with the patient. Afterwards, interviews took place and lasted for up to one hour. Researchers conducted interviews during participant downtime in the ED and did not interfere with patient care. The study protocol was approved by the medical center’s Institutional Review Board.

Analysis

Interviews were digitally audio-recorded. Recordings were transcribed for analysis by an administrative assistant and a medical student. The administrative assistant and medical student who transcribed interviews did not conduct or analyze interviews. To ensure inter-rater agreement, each transcript was analyzed by at least two researchers. We analyzed data using an inductive or data-driven Grounded Theory approach (Glaser & Strauss, 1967; Strauss & Corbin, 1990; Strauss & Corbin, 1998).

The following steps were performed for data analysis. First, researchers read the transcripts to become familiar with interview content. Second, researchers identified key passages within the interviews. Third, researchers developed and assigned approximately 30 codes to key passages. Fourth, researchers identified approximately twelve subthemes from

codes. Finally, researchers created four overarching themes from subthemes. Researchers discussed interview content and reached consensus at each step.

RESULTS

Researchers approached eighty patients. Fifty patients consented and completed interviews. Forty-six participants were female. Of all participants, many lacked knowledge of MHN (n=36) and were unaware that they belonged to MHN (n=37). Participants expressed knowledge of their PCP (n=45) and believed that they received good care from their PCP (n=37). However, they (n=33/50) did not contact their PCP prior to their ED visit. Of the participants who did not contact their PCP prior to their ED visit, some participants (n=14) deemed their issue an emergency. When asked to rate their overall health, 18 participants indicated “good” or “great” health, while 17 participants indicated “fair” or “average.”

Data analyses revealed four themes. Theme one addressed participant-identified barriers to visiting with their PCP prior to their ED visit. Theme two pertained to the circumstances that led participants to visit the ED. Theme three referred to mental health issues and stress experienced by participants. Theme four highlighted participants’ beliefs regarding primary care and their perceptions of the utility of EDs. See Table 1 for themes, subthemes, and representative quotes from participant interviews.

Table 1: Qualitative Themes, Subthemes, and Examples from Patient Interviews Regarding Patient ED Use for Non-Urgent Purposes.

Theme	Theme 1: Participant-Identified Barriers to Visiting the PCP Prior to the ED Visit	Theme 2: Circumstances Leading to the ED Visit	Theme 3: Mental Health Concerns and Perceived Stress	Theme 4: Participant Beliefs Regarding Primary Care and the Utility of the ED
Concept	Participants articulated various reasons for not visiting their PCP prior to their ED visit.	Participants indicated various circumstances that led to their ED visit.	Participants stated the presence of multiple sources of stress in their daily lives. Additionally, they indicated mental health issues and diagnoses.	Participants expressed their beliefs regarding the role of primary care and the utility of EDs.
Subthemes	<p><u>1</u>: Not contacting PCP prior to visiting the ED.</p> <p><u>2</u>: Not having an appointment and scheduling issues.</p> <p><u>3</u>: Participants deemed their issue an emergency, especially pain which many participants viewed as an emergency situation versus a primary care situation.</p>	<p><u>1</u>: The experience of physical pain.</p> <p><u>2</u>: Visiting the ED \leq 4 times during the previous 12 months.</p> <p><u>3</u>: Preferred environment of care - some participants simply preferred receiving care at the study ED.</p>	<p><u>1</u>: Stress related to family, work, school, and environment.</p> <p><u>2</u>: Self-reported mental health issues.</p> <p><u>3</u>: Stigma and lack of willingness to discuss mental health issues and stress.</p>	<p><u>1</u>: The ED provides fast, convenient, solution-oriented, team-based care in an environment containing necessary equipment.</p> <p><u>2</u>: PCPs either previously or currently directed participants to the ED; hence, participants sought care at the ED and bypassed primary care.</p> <p><u>3</u>: Whether in primary or emergency care, shorter wait time upon arrival correlates to good care.</p>
Example Interviews	<p>Interviewer: Alright that's the last question I have for you. Do you have any questions for me?</p> <p>Patient: How I get the care of my regular doctor faster not coming to the Emergency Room going through all the wait trying to get the care that they have that I'm trying to get?</p>	<p>Interviewer: What kind of care would you say that you get here at the Emergency Room?</p> <p>Patient: Over here?</p> <p>Interviewer: Yes.</p> <p>Patient: I feel like a princess. I feel like they care over here. They show you that they care.</p>	<p>Interviewer: Do you experience stress in your life?</p> <p>Participant: Now I am very dependent that MRI says I might lose my toe. It is kind hard right now and kind a depressing.</p>	<p>Interviewer: Ok, is it easier to come in to the Emergency Room here?</p> <p>Patient: Yes.</p> <p>Interviewer: What makes it easier?</p> <p>Patient: What the fact that they try to figure out what the problem is that night. Other than going to your doctor they just experimenting ok take this for 45 days take this take that.</p>

Theme One: Participant-Identified Barriers to Visiting the PCP Prior to the ED Visit

A major barrier consisted of participants not contacting their PCP prior to their ED visit. When asked why they did not contact their PCPs prior to their ED visit, participants provided responses related to scheduling issues. Participants experienced difficulties with scheduling an appointment with their PCP. One participant stated that her PCP was “always busy so we can’t make appointment right on the spot. You have to wait for two months.” Another participant indicated that while she liked her PCP, the provider was only in the office during certain times of the month. She went on to say that, **“If I want to see her then those are the days I will take off work.” For those participants who were unable to take off from work or eschew other obligations, primary care hours presented another problem.** One participant explained that their primary care office was “not open on the weekends.” Another participant indicated that “sometimes the clinic is closed for the evening.”

Yet, as one participant stated, “Most everything has to have appointments for so it is better to just come in [to the ED] and getting over with.” Participants doubted that their PCPs would have been able to accommodate a same-day visit. One participant noted, “You can’t just walk in. You have to call 7:00 am to get an appointment for that day.” Even with an appointment, a participant pointed out, “They be crowded a lot when you have appointment and they are overcrowded when 2:00 pm and close at 3:00pm.”

Compounding scheduling issues was the presence of physical pain. One participant stated that she would have visited her PCP but **“At the point I was having really bad pain. I want to see a doctor now not wait a couple of days.”** Participants deemed their health issues as emergencies especially pain. Participants frequently viewed pain as a problem for emergency care and not suitable for primary care. One participant went in-depth about her experiences with pain and primary care. She stated, “And so if I have to come to the emergency room, obviously I’m in pain. Nobody just wants to come in here and sit around for half of their day and leave out in the same pain that they came here in. My primary physician was, kind of, I know he has a different approach to ailments or whatever and I don’t like it because I’ll leave there still in pain with nothing to fix the pain and I have some pretty excruciating pain.”

Theme Two: Circumstances Leading to the ED Visit

Participants did not wish to visit a random ED. They preferred to receive care at the study ED. When asked to comment on the type of care that she received at the current ED, one participant said, “I feel like a princess. I feel like they care over here. They show you that they care. You know in the emergency room, I didn’t have to wait 2-3 hours to come back here to see the doctor so I like it.” Another participant noted, “The doctors here and nurses care for you – they don’t leave you. They make sure you’re ok.” Participants also felt comfortable at the current ED and expressed a familiarity with the current ED. When a researcher asked a participant why she chose to come to the ED, she responded that, “Um, I don’t know any other place. I’ve been going here since I was a baby so this is the only place I feel comfortable at. No matter how long the time is, I just feel comfortable here.”

Theme Three: Mental Health Concerns and Perceived Stress

Participants were reluctant to discuss their mental health and stress in their lives. When asked did she ever feel not like herself in any way, a participant answered, “I’d rather not answer. I only want to talk about the emergency room.” Another participant, when asked what causes

stress for her, responded, "I'd rather not talk about my personal condition." In comparison to other topics addressed during the interview, participants were less likely to express the existence of mental health concerns (n = 23) such as depression and stress (n=27).

When participants did speak about their mental health and experiences of stress, they revealed two things. First, participants spoke about the presence of mental health issues and diagnoses in their lives. One participant noted that there were "some days where I can't get out of bed. I feel I can't make it for the day." Another participant stated that she was diagnosed with "post-traumatic stress disorder and anxiety" but "I haven't started treatment yet for general anxiety disorder."

Second, participants indicated multiple sources of stress in their daily lives. Participants spoke of stress related to family, work, and school. Additionally, participants indicated neighborhood safety as a source of stress. When asked if she believed that her neighborhood was safe, a participant replied, "I don't like it at all. I really don't like where I live. They hang around all day, selling drugs; kids can't play outside because they shoot. They drive reckless." Another participant shared a similar sentiment by stating, "No, there's killing every day in the news. It is sad some of my friends got killed for the last two months."

Participants also spoke about their health-related issues as a source of stress. When one participant was asked if she was under a lot of stress, she replied, "With this bleeding, yes." In a similar vein, one participant rated her overall health as, "pretty good – except for this." Other participants alluded to a relationship between experiences of stress and their health. When asked what influenced her overall health, one participant said, "I'm not able to really tell you. It be certain things." Once prompted by the researcher, the participant added, "I have quite a few health issues to be the age that I am at, which is pretty sad for me to be as young as I am. But I don't.... really I can't tell you right now."

Theme Four: Participant Beliefs Regarding Primary Care and the Utility of the ED

Participants discussed the role of primary care and their views on the utility of the ED. Participants expressed that their PCPs (or other primary care staff) directed them to the ED previously or prior to the current ED visit. When one participant called her PCP's office prior to her current ED visit, she was informed that her PCP was "gone for maternity leave." The participant went on to say that, "There were other people taking over but they don't know me well and they told me go to the hospital." More often, participants described the following process: 1) previously experienced a similar health issue, 2) contacted or visited their PCP, 3) the PCP instructed the participant to seek care in the ED, and 4) the participant visited the ED. When participants experienced similar health issues at a later time, they chose to bypass primary care and sought care in the ED. One participant stated, "Had I come to the ER first though, all of these test would've been ran then and I wouldn't be here."

Participants believed that the ED provided fast care that was both team-based and patient-centered. A participant noted that while she preferred to receive care within both primary care and the ED, she stated "**Here it is a little bit quicker help. In the primary care doctor like a lot of patients during the day you can't get the care you want. But here it is a whole lot of people doctors and nurses they can focus to treat you.**" Participants also perceived that the ED was solution-oriented. When a researcher asked a participant why visiting the ED was easy, the participant replied, "What the fact that they try to figure out what the problem is that night. Other than going to your doctor they just experimenting ok take this for 45 days take this take

that.” They also expressed that the ED contained necessary equipment to provide diagnoses and identify next steps. A participant stated, “They have more equipment so they’re willing to tell you what’s going on what’s wrong quickly than the doctor’s office.” One participant summed up participants’ thoughts regarding primary care by saying, “They’ve ran more tests than my primary doctor did in one day so they pretty thorough. I feel like if I come here, I will leave today with the answer even if they couldn’t stop the bleeding, they could at least tell me why it’s happening and what I can do about it.”

Participants spoke about the concepts of “convenience” and “wait” in regards to the ED. For participants, convenience extended beyond the actual location of the ED to the type of care that they received at the ED. For example, participants deemed it convenient for them to see an ED provider and receive a diagnosis complete with prescriptions and next steps. A participant stated, “I’m just being honest but see, with the ER, like now, they ran all these tests right now the same day. I didn’t have to wait a week for them to say ‘I’m gonna send your blood work’. I’m freaked out, I don’t wanna wait for that, I wanna know today what is wrong with me, why this is happening to my body, so that’s why the emergency room is more convenient, in my perspective.”

For participants, the concept of “wait” denoted three things. First, wait referred to the time between when a patient sought an appointment with their PCP and when a patient was seen by their PCP. As one participant asked a researcher, “**How I get the care of my regular doctor faster not coming to the Emergency Room going through all the wait trying to get the care that they have that I’m trying to get?**” Second, wait referred to the time between when a patient arrived at the ED and when a patient received care from a provider. “Not being forgotten” by ED staff was important to participants when describing good care. And third, wait referred to the time between a patient’s primary care visit and when a patient’s PCP provided a solution to the patient’s problem. When asked about any problems when seeking care from her PCP, a participant stated, “Like I said it’s just that I don’t feel like they do what I want them to do, to be honest. They’ll do it, but it’s a waiting game and I’m not a very patient person. I don’t wanna wait for my labs to come back. I don’t wanna wait a week from now to get a call. I want to know today, when I leave, what’s wrong with me and what I can do to fix it.”

DISCUSSION

Our qualitative results indicate four themes regarding non-urgent ED use by MHN patients. The first theme outlines patient-identified barriers to visiting the PCP. Barriers to visiting a PCP include scheduling issues and the presence of physical pain. The second theme outlines circumstances leading to patients visiting the ED. Circumstances consist of experiencing physical pain and patients’ preference to receive care at the study ED. A third theme pertains to patients’ mental health concerns and their perceived stress. Patients note that they: 1) experience mental health issues, and 2) have multiple sources of stress in their daily lives including physical health-related issues and neighborhood safety. The fourth theme highlights patients’ beliefs regarding primary care and the usefulness of the ED. Patients believe that the ED provides fast care that is both team-based and patient-centered.

An emerging body of literature addresses non-urgent ED use from the patient perspective using qualitative individual interviews. Similar to previous studies, our findings suggest that: 1) patients experience scheduling issues (e.g. provider or patient unavailability) when making an

appointment with their PCPs (D’Avolio et al., 2013; Howard et al., 2005; Lawson et al., 2014; Long et al., 2013), 2) PCP staff refer patients to the ED (Howard et al., 2005; Koziol-et al., 2000; Lawson et al., 2014; Long et al., 2013), 3) patients note that the ED provides fast and convenient care in comparison to the PCP (Howard et al., 2005; Koziol-McLain et al., 2000; Lawson et al., 2014), and 4) patients believe that their health condition requires immediate care (Koziol-McLain et al., 2000; Lawson et al., 2014; Long et al., 2013).

However, our findings provide a more nuanced understanding of why patients visit the ED for non-urgent issues. Our results indicate that patients visit the ED when experiencing symptoms specifically related to physical pain. Current study findings also suggest that patients do not contact their PCP prior to visiting the ED and patients prefer visiting a particular ED. Lastly, our results show that patients are reluctant to discuss mental health and stress. When patients do address the topic, they reveal existing mental health issues and several sources of stress. Patients also indicate a disassociation between mental health and stress with physical health and ED visits. The roles that mental health and stress play in non-urgent ED visits remain unclear. Future research should explore the relationship between mental health, stress, and non-urgent ED visits.

In the current study, the concepts of “wait” and “convenience” crosscut multiple themes. Patients deem visiting the ED to be more convenient than visiting their PCP. The notion of convenience extends beyond the ED’s actual location to patients being able to receive care, diagnoses, prescriptions, and next steps at one location - the ED. Patients are willing to bypass the PCP in favor of the ED for care in order to receive quick, convenient care. Patients also note the issue of “wait.” However, the context or meaning of “wait” differs in each theme. “Wait” in the first theme denotes time that elapses between scheduling a PCP appointment and receiving primary care while “wait” in the fourth theme refers to time that elapses between arriving at the ED and receiving care in the ED.

Our findings suggest that extended clinic hours including evening and weekend hours may decrease inappropriate ED use (Margolius & Bodenheimer, 2011; O’Malley, 2012). Clinics may also benefit from clinic-based laboratory and radiology services that feature faster turnaround times. Study findings also suggest the need for patient education addressing the roles of different healthcare environments including the ED and primary care (Flores-Mateo, Violan-Fors, Carrillo-Santistevé, Peiro, & Argimon, 2012). Patient education addressing appropriate use or urgent use of the ED and the necessity of primary care may allow patients to make more informed decisions regarding healthcare use. Patients who frequent the ED for non-urgent purposes may also benefit from wrap-around services (Kumar & Klein, 2013) including care coordinators and community health workers located within the ED, PCP clinics, and the community. It is important that patient education and wrap-around services include and maintain culturally competent content. As it is likely that providers will work with disenfranchised patient populations with histories of cultural and medical mistrust, providers must engage in continual cultural competency training.

CONCLUSION

Our study findings highlight patient-identified barriers to primary care and facilitators of ED use. Overall, patients believe that the ED provides fast and convenient healthcare where they receive diagnoses, prescriptions, and next steps. Understanding the patient perspective may

assist with intervention-development and modification of clinic practice especially for low-income patients. These interventions and clinic practice changes may decrease inappropriate ED use while simultaneously increasing consistent primary care use.

Our study had several limitations. First, research staff conducted patient interviews at a single ED. Second, services for MHN patients continued to evolve and expand during the study timeframe. MHN implemented the use of an ED-located care coordinator for MHN patients during the course of the study. We did not address ongoing MHN changes during patient interviews. Lastly, we did not gather patient PCP utilization data; thus, it is unknown how often patients visited their MHN-designated PCP.

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APPENDIX I: INTERVIEW GUIDE

Introduction: Hello, my name is _____. I work here at the hospital. My goal is to improve medical care for patients like you. May I ask you some personal questions about your health, your knowledge of your insurance, your home situation, etc. while you wait? Your answers will help me understand and improve medical care services. It would not take very long and will not interfere with your medical care. I would really appreciate your time. *Gain Approval/Consent.*

Thank you. Let's get started.

Domain 1: Knowledge of the Medical Home Network

1. Have you heard of the Medical Home Network?
2. Do you belong to the Medical Home Network?
3. How long have you been a part of the Medical Home Network? (**NOTE:** Ask only if patient states that s/he belongs to the Medical Home Network.)

Domain 2: Primary Care Specifics

1. Do you have a primary care provider? (**PROMPT:** Do you have a doctor or provider that you see for your healthcare needs?)
2. How often do you see your primary care provider?
3. Where is your primary care provider located?
4. What kind of care do you receive from your primary care provider? (**PROMPT:** For example, good care or bad care.)
5. ---

- A. Is it easy to visit your provider?
- B. How so?
- C. Is it difficult to visit your provider?
- D. How so?
- 6. Can you tell me an estimate of the cost of a visit to your primary care provider?
(**PROMPT:** How much do you think it costs for a visit to your doctor?)

Domain 3: Emergency Department Specifics

- 1. Why did you decide to come to the ED today?
- 2. Did you call your primary care provider before visiting the ED today?
 - A. (**NOTE:** If the patients answer “no”) Why not?
 - B. (**NOTE:** If the patient answers “yes”) What happened when you called?
- 3. ---
- A. How many times have you visited any ED in the past twelve months?
- B. Why did you decide to go to the ED on those days? (**PROMPTS:** Did pain bring you in? Did a specific illness cause your visit? If so, which one?)
- 4. ---
- A. Is it easy for you to visit the ED?
- B. How so?
- C. Is it difficult for you to visit the ED?
- D. How so?
- 5. What kind of care do you receive at the ED? (**PROMPT:** For example, good care or bad care?)
- 6. Can you tell me the cost of an ED visit? (**PROMPT:** How much do you think it costs for an ED visit?)

Domain 4: Barriers

- 1. ---
- A. Do you experience any problems that stop you from visiting your primary care provider?
(**NOTE:** Only ask the patient this question if they replied “yes” to 1.1.A.)
- B. (**NOTE:** If patient answers “yes”) Please tell me more about these problems.
- 2. ---
- A. Do you experience any problems that stop you from visiting the ED?
- B. (**NOTE:** If patient answers “yes”) Please tell me more about these problems.
- 3. ---
- A. Do you experience problems receiving healthcare, in general?
- B. (**NOTE:** If patient answers “yes”) Please tell me more about these problems.

Domain 5: Facilitators

- 1. ---
- A. Do you live near the Rush ED?
- B. Which neighborhood do you live in?
- C. Is it convenient for you to visit the Rush ED?
- 2. ---
- A. Do you prefer healthcare or treatment at the ED in comparison to your primary care provider?
 - i. (**NOTE:** If yes) Why?

- ii. **(NOTE: If no)** Why not?
- B. When compared to your provider, do you feel better about visiting or receiving care at the ED?
 - i. Why?
 - ii. How so?

Domain 6: Psychiatric or Mental Health Factors

- 1. Now, let's talk about personal factors. Do you ever feel sad for long periods of time?
- 2. Do you ever feel not yourself or unlike yourself?
- 3. If so, how often?
- 4. If so, why do you believe it happens?
- 5. Have you been diagnosed with or treated for a mental illness? **(PROMPT: For example, depression, anxiety, bipolar disorder, schizophrenia, or schizoaffective disorder?**
- 6. ---
 - A. Has your mental illness led you to visit the ED in the past twelve months?
 - B. **(NOTE: If the patient responds "yes")** How many times?
- 7. ---
 - A. Has your mental illness interrupted your life/daily activities?
 - B. **(NOTE: If the patient responds "yes")** If so, how?

Domain 7: Psychosocial Factors

- 1. Do you live alone or with others?
 - A. **(NOTE: If the patient answers "with others")** Who?
- 2. ---
 - A. Who brought you to the ED?
 - B. Is anyone with you?
- 3. Do you believe your neighborhood is safe?
- 4. Do you experience a lot of stress?
 - A. **(NOTE: If the patient answers "yes")** How so?
- 5. How would you describe your health?
 - A. **(NOTE: Pause for patient's answer.)**
 - B. For example, your physical health or mental health or simply overall.
- 6. What influences your overall health?

Domain 8: Socioeconomic Status

- 1. Do you work?
 - a. **(NOTE: If the patient answers "yes")** What hours of the day?
 - b. **(NOTE: If the patient answers "yes")** About how much do you make in a year?
 - i. Can you give me a range?
 - ii. **(LAST RESORT :)** For example, \$10,000-20,000.

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