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### Why Patients Miss Appointments at an Integrated Primary Care Clinic

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Why Patients Miss Appointments at an Integrated Primary Care Clinic

by

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DISSERTATION

Submitted in partial fulfillment for the degree of  
Doctor of Psychology in the Department of Clinical Psychology  
at Antioch University of New England, 2020

Keene, New Hampshire



Department of Clinical Psychology  
**DISSERTATION COMMITTEE PAGE**

The undersigned have examined the dissertation entitled:

**WHY PATIENTS MISS APPOINTMENTS AT  
AN INTEGRATED PRIMARY CARE CLINIC**

presented on April 24, 2020

by

**Katherine Lambos Wilsey**

Candidate for the degree of Doctor of Psychology  
and hereby certify that it is accepted\*.

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## Abstract

Missed appointments in primary care clinics is of import given the significant impact not only on patients' continuity of care, but also on the larger healthcare system. Missed appointments indicate that there are barriers to patients' access of health care and these contribute to poor health outcomes. Further, missed appointments lead to financial and capacity issues for primary care clinics while also contributing towards higher patient utilization of emergency department services, for medical problems traditionally treated by primary care. Integrated primary care clinics offer both medical and mental health services to patients by way of employing behavioral health consultants to assess and improve each patient's whole health. Prior studies sought to understand patient demographics of those who missed primary care appointments in order to identify patients most at-risk and to subsequently create interventions to best support these individuals. However, there is limited research examining why patients miss appointments; in other words, patients' reasons for missed appointments. The present study, an interpretive phenomenological qualitative analysis (IPA), examined an archival dataset containing transcripts from semi-structured interviews with patients who missed their scheduled appointment in order to explore the phenomenon of patients missing their appointment at an integrated primary care clinic. The impacts of missed appointments on both individual and systemic bases are discussed. Limitations of this study are considered and directions for future research are suggested. Last, a reflection of my experience as a trainee at an integrated primary care (IPC) clinic that is also an academic medical center (AMC) and a patient-centered medical home (PCMH) is discussed.

This dissertation is available in open access at AURA, <http://aura.antioch.edu/> and Ohio Link ETD Center, <https://etd.ohiolink.edu/>.)

*Keywords:* integrated primary care, missed appointments, academic medical center, primary care behavioral health, patient-centered medical home

## Chapter 1: Missed Appointments Negatively Impact Patients

### **Providers, and the Healthcare System**

In the United States, primary care clinics provide comprehensive continuity and coordination of care to a vast number of patients across the lifespan with a variety of health concerns (Rothman & Wagner, 2003). Although technology may serve as a conduit between providers and patients, allowing for these processes (i.e., comprehensive continuity and coordination of care) to be carried out when patients are not present in the clinic, providers need to meet face-to-face with patients. When patients are, for whatever reason, unable to present to their in-person appointments, there is an interruption in continuity of care and it may lead to further problems with coordination of care as well (Rothman & Wagner, 2003). Missed appointments are often referred to in the scholarly literature as no-show (NSH) appointments. The literature defines a missed appointment as a scheduled appointment that is canceled within 24 hours of the appointment time or when a patient does not present to the clinic for their scheduled appointment (Triemstra & Lowery, 2018).

Patients suffer from direct and side effects of missed appointments. A direct effect is that the patient who scheduled the appointment is not receiving the quality of care that the scheduled appointment would provide (Boos, Bittner, & Kramer, 2016). Other patients suffer from the indirect impact of missed appointments, such as later scheduling dates and associated dissatisfaction (Parikh et al., 2010). In addition, Parikh et al. reported that while it has been indicated that missed appointments negatively influence the health of the patient, they also posited that missed appointments negatively impact the health of other patients as well.

### ***Patients with Long-Term Conditions are at Greater Risk of Missed Appointments***

There are a multitude of studies that sought to examine variables of patients who missed appointments in order to determine which patients are most at-risk for missed appointments. Among the identified factors were patients who were younger, unmarried, uninsured, who experience psychosocial problems, who have chronic or long-term health conditions, and who have a history of missing appointments (Cashman, Savageau, Lemay, & Ferguson, 2004; McQueenie, Ellis, McConnachie, Wilson, & Williamson, 2019; Weingarten, Meyer, & Schneid, 1997). For patients with chronic or long-term health conditions, for example Type 2 Diabetes, it is especially important to maintain continuity of care in order to mitigate adverse outcomes. When patients miss appointments, their care is interrupted which is associated with poorer outcomes (McQueenie et al., 2019). In McQueenie et al.'s national retrospective data linkage study by of 11,490,537 separate appointments ( $n = 824, 374$  patients), it was found that patients with one to three long-term health conditions were at 30% greater risk of missing appointments compared to patients with four or more long-term health conditions who were at 70% greater risk of missing appointments. When long-term conditions were further delineated into physical and mental health conditions, it was found that patients with mental health long-term conditions were more at-risk than their physical health counterparts to miss appointments.

### ***Patients Who Miss Primary Care Appointments May Be at Greater Risk for Death***

Patients who miss primary care appointments, both those with and without long-term physical and/or mental health conditions, are at significantly increased risk of premature mortality (McQueenie et al., 2019). To be clear, it is unlikely that the relationship between missed appointments and death is directly causal, or that one dies prematurely specifically because they missed their appointment. Rather, it is to say that research indicates that individuals

who missed their appointments were more likely to die prematurely when compared to their counterparts who completed their scheduled appointments. Patients with long-term health conditions were identified as particularly at-risk of premature mortality. Patients with physical health-related long-term conditions who missed two or more appointments per year were found to be at a three-fold increased risk for all-cause mortality (McQueenie et al., 2019). For patients with only mental health long-term conditions, the increased risk of mortality was more than eight-fold (McQueenie et al., 2019).

### ***Missed Appointments Contribute to Higher Rates of Emergency Department Utilization***

A specific negative impact of missed primary care appointments is higher emergency department utilization, which is an increasing and costly concern for healthcare in the United States (Nguyen & DeJesus, 2010). Many studies have sought to examine predictors, patient variables, and other variables associated with emergency department utilization. A study by Nguyen and DeJesus found that when patients miss their appointments with resident physicians, they are more likely to present to the emergency department. Available literature repeatedly demonstrates that missed appointments are a better predictor of future emergency department utilization than other variables, such as chronic health conditions, psychiatric conditions, and cognitive factors (Miller-Matero, Coleman, Aragon, & Yanez, 2018; Nguyen & DeJesus, 2010). Thus, tracking and close examination of missed appointments, particularly of residents' patients in AMCs, is especially important.

### ***The Financial Impact of Missed Appointments is Widespread***

Regarding the impact of missed appointments on providers, physicians experience a loss of time, efficiency, economic losses, and productivity, to name a few (Boos et al., 2016; Dantas, Fleck, Cyrino Oliveira, & Hamacher, 2018). In addition, the impact of missed appointments has

been demonstrated to impact entire clinics in terms of financial losses and operational capacity (Dantas et al., 2018; Lasser, Mintzer, Lambert, Cabral, & Bor, 2005). This is especially important for academic medical centers (AMCs), also known as teaching hospitals, and the associated primary care clinics. The Association of American Medical Centers reported that only 5% of total hospitals are teaching hospitals but provide one-quarter of all Medicaid care and around one-third of all charity care (Triemstra & Lowery, 2018). When patients of AMCs miss their primary care appointments, they may later present to the AMC emergency department to supplement their care, which creates greater financial strain on the entire system and reduced continuity of care for patients. Thus, primary care is the best location for the majority of patients to access their care, not only in order to maintain continuity of care and mitigate health decline, but also financially (Blount et al., 2007).

### **Missed Appointments Have Varying Rates**

The prevalence of missed appointments in the United States varies from clinic to clinic, but is most commonly cited as ranging from 5 to 55% (Defife, Conklin, Smith, & Poole, 2010; Miller-Matero, Clark, Brescacin, Dubaybo, & Willens, 2016). It is notable that a large meta-analysis published in the *Journal of the American Medical Association (JAMA)* 25 years ago reported a much broader range for missed appointments, from 8% to 94% (Macharia et al., 1992). The range in missed appointment rates is thought to be due to a variety of factors, including but not limited to health care settings, geographic regions, patient populations and medical specialties (Defife et al., 2010). Many primary care practices monitor missed appointments in order to determine clinic missed appointment rates. Monitoring missed appointments may help identify variables that cause or influence the phenomenon.

### **There are Identified Patient Variables that Influence Missed Appointments**

There are many studies that have sought to identify and statistically analyze factors associated with missed appointments, patients who frequently miss appointments, and clinics with high missed appointment rates, to name a few (Dantas et al., 2018). These studies, along with the present study, recognize the utility of identifying said factors in order to mitigate the effects of missed appointments and to identify patients with potential barriers to care (Defife et al., 2010). However, while identifying patient variables, especially patient demographics, may be helpful, it is not enough on its own. One must also wonder what the impact of identifying these factors may be on the patients who fall within these demographics. Boos, Bittner, and Kramer (2016) argue that these demographics are not only helpful, but necessary for creating effective interventions to target those at-risk for missed appointments. The aforementioned authors also state that missed appointments are multifactorial in that there are both individual and area-specific factors that may present as a barrier to adhering to their appointments.

### **Who Misses Primary Care Appointments?**

The literature indicates that, demographically, patients who are most likely to miss appointments are younger, of lower socioeconomic status, nonwhite, male, Mexico as a country of origin, or have been diagnosed with mental health problems (Boos et al., 2016; Shimotsu et al., 2016). Additional factors influencing missed appointments are history of missed appointments, psychosocial problems, Medicaid coverage, lack of health insurance, medical complexity, appointments scheduled with residents or medical-students, and longer wait times (Boos et al., 2016; Nguyen & DeJesus, 2010; Weingarten et al., 1997). Exploring patient variables regarding missed appointments may be important in order to create interventions that support patients most at-risk. However, this process may lead to stereotyping and/or biased

profiling of patients rather than simply creating opportunity to introduce interventions aimed at reducing barriers to care for all patients.

### **Statement of Purpose: Exploring Why Patients Miss Primary Care Appointments**

There is limited research investigating patients' reasons for missing appointments in primary care. This research is especially limited for integrated primary care clinics that are a part of academic medical centers (AMCs). This study researched and examined the reasons that patients gave for missing their appointments at an integrated primary care clinic affiliated with a residential training program. This study also sought to explore potential barriers to presenting to appointments, highlight potential workflow problems within the clinic, identify patients' perspectives on potential solutions for increasing access to care, and determine patients' perspectives on their overall quality of care. Additionally, the findings of this study have implications for quality improvement interventions and appointment adherence programs.

This study analyzed an archival dataset collected at an IPC that is part of an AMC in the Northeastern United States from January 2018-March 2018. The dataset includes 62 brief telephone interviews with 62 patients who missed appointments. Patients were asked four questions: (a) why they missed their appointment, (b) if they tried to cancel their appointment, (c) if there was anything the clinic could do to make it easier for them to present to appointments, and (d) if there was anything the clinic could do to improve their overall quality of care. Patients were provided psychoeducation regarding impacts of missed appointments on the clinic as well as patient care as well as education regarding current technologies available to them. Discovering the reasons why patients missed their scheduled appointments may identify potential barriers to care and aid in future quality improvement projects aimed at improving adherence to scheduled appointments. This research utilized interpretive phenomenological

analysis (IPA) to better understand the patients' reasons for missing primary care appointments. This method was utilized to provide more depth to the phenomenon of missed appointments than a survey response could provide.

The researcher addressed the following questions:

1. What were patients' reasons for missed appointments in a primary care clinic?
2. For patients who tried to cancel their appointment in advance, why were they unable to do so?
3. Do the solutions offered by patients to reduce barriers to appointments match the solutions identified in the literature?
4. What are patient perspectives on the quality of care received?

### **Theoretical Framework: The Biopsychosocial Model**

The *biopsychosocial* model is not new in the world of medicine and sits directly opposite to the biomedical model (Alonso, 2004). This model posits that both health and illness result from interactions between biological, psychological, and social factors (Alonso, 2004). The *biomedical* model provides only part of the defining factors that are associated with health, and thus, it is not sufficient for the present study. George Engel (1977) posited that the "biomedical model of disease leaves no room within its framework for the social, psychological, and behavioral dimensions of illness" (p. 196). Further, Engel (1980) argued that the way that physicians conceptualize patients and their problems is greatly influenced by the way in which they organize their knowledge. Thus, when examining a patient's problems, one needs to take a biopsychosocial model in order to understand the entire person. In 2002, the World Health Organization (WHO) published the International Classification of Functioning, which utilized the biopsychosocial model (Wade & Halligan, 2017). In addition, the biopsychosocial model has



been utilized worldwide to structure guidelines, guide clinical decision-making, and discussed with regard to person-centered care (Wade & Halligan, 2017).

In the decades since the biopsychosocial model was first introduced by George Engel in 1977, there have been a plethora of critiques and criticisms (Wade & Halligan, 2017) about concerns that disease was being marginalized, but Wade and Halligan (2017) argue that evidence has been gathered to negate this concern. Further, it has been argued to be unhelpful to patients and not universally useful, which can be understood in terms of its misuse and failure to understand the limitations of the model (Wade & Halligan, 2017).

While it is thought to be the most widely utilized model in research, there has been no change in the conceptualization of health in medical research articles (Alonso, 2004). Although many physicians subscribe to the biomedical model, there are many instances in which the patient's needs are also psychosocial in nature (Alonso, 2004). To leave out the psychosocial not only results in an incomplete assessment of the problem, but it is also against best practice (Alonso, 2004; Wade & Halligan, 2017).

## **Chapter 2: Literature Review**

In a meta-analysis of studies, Macharia et al. (1992) found that there was a mean completed appointment rate of 58% with a range from 8% to 94% (Defife et al., 2010). This indicated that there were some primary care practices with as high as a 92% missed appointment rate. These rates are not only widely ranging, but also represent a larger pattern of potentially ineffective patient care. This chapter discusses more in depth some of the previously identified factors related to missed appointments, such as patient demographics and characteristics, relevant psychosocial factors, logistical factors, and practice characteristics. Although limited, current literature regarding why patients miss appointments is reviewed, followed by an introduction to patient-centered care. Last, this chapter reviews interventions with the goal of mitigating missed appointments.

### **Individual Demographics and Characteristics**

It has been well documented that there are many individual demographics and characteristics associated with missed appointments. However, one must keep in mind that while these demographics and characteristics are helpful in terms of relevant research variables, that these data can also be easily misinterpreted and misused to inappropriately stereotype or stigmatize groups of patients. While this research is reviewed, keep in mind how this information may be useful to individual primary care clinics in terms of translation of research to practice. Boos et al. (2016) articulated that younger age may be correlated with higher missed appointment rates due to younger patients typically having fewer medical issues, thus they may be less motivated to present to their appointments. In their systematic literature review, Dantas et al. (2018) found that the majority of studies highlighted patients who fell in the younger adult

range to be the most likely to miss to their appointments and in pediatric primary care clinics, they found that as children aged the likelihood of missed appointments also increased.

In addition, Miller, Chae, Peterson, and Ko (2015) found that people who miss their appointments tended to be of younger age, Black race, and lower income. Utilizing logistic regression, closer distance from home to appointment, less bus transfers, Medicaid insurance, and lower income, were found to correlate with missed appointments (Miller et al., 2015). Miller et al. conducted this study in the metro Detroit area and hypothesized that closer distance to clinic was related to the income inequality in the population. Cashman, Savageau, Lemay, and Ferguson (2004) were less sure whether or not distance to clinic was a proxy for other factors (e.g., socioeconomic status). Defife et al. (2010) also found that patients who were younger, ethnic minorities, living farther from the primary care clinic, less educated, and of lower socioeconomic status more frequently missed appointments. A similar study by Boos et al. (2016) echoed these results. With regard to patients of minority status, Dantas et al. (2018) found that while minority groups were associated with increased missed appointments, they also found that different ethnic and racial groups were considered minorities in different areas.

In the Veteran population, these results are similar, however, it was also found that male patients with mental health issues were also found to have high missed appointment rates (Boos et al., 2016). In the civilian population, these results were similar. Dantas et al. (2018) found that men were more likely than women to miss their appointments.

A study by Parikh et al. (2010) also found that age, insurance type, wait time, and division specialty were statistically significant predictors of missed appointments. Miller-Matero et al. (2016) combed through the scholarly literature and specified that those of Hispanic, African American, and Native American descent were more likely to miss appointments than those of

other ethnic and racial categories. Cashman et al. (2004) found that those with a lack of income, and those who were uninsured or underinsured were more likely to miss their appointments than their counterparts. Thus, lower socioeconomic status correlated most with missed appointments (Dantas et al., 2018).

With regard to patient education, the majority of studies did not find statistical significance in with this variable (Dantas et al., 2018). However, for pediatric appointments, parental educational level was directly related to missed appointments (Dantas et al., 2018). Parents with higher educational levels were more likely to present for their child's appointment and parents with lower educational levels were more likely to miss their child's appointment (Dantas et al., 2018).

Out of all the research on different individual variables and characteristics, the singular variable most frequently associated with increased missed appointment rate was prior missed appointments (Defife et al., 2010). As aforementioned, while it may be helpful for clinics to identify the patient demographics of their missed appointments, this may ultimately lead to stigmatization and profiling of patients. Thus, understanding that history of missed appointments is one of the most important predictor variables, it may serve clinics better to focus on this individual characteristic than any other.

### **Individual Psychosocial Factors**

One of the individual characteristics that was especially salient to clinical psychology is mental health status. Patients with mental health diagnoses were found to be more likely to miss appointments than their counterparts (Boos et al., 2016). Defife et al. (2010) found that patients with mild or severe mental health symptoms were more likely to miss appointments. A study by Boos et al. found that the mental health diagnosis rate was 60% for individuals who missed their

appointments, which is much higher than the 46% prevalence of mental health diagnosis in the US population. Additionally, those who utilized prescribed psychiatric medication and/or anti-depressants were more likely to miss appointments than those not being prescribed psychiatric medications (Dantas et al., 2018). How to interpret this result becomes a particular challenge as many patients who take psychiatric medications need the medication to function and to achieve a satisfactory quality of life. Last, those who endorsed consumption of tobacco, illicit drugs, and/or alcohol were more likely to miss appointments (Dantas et al., 2018).

### *Depression*

Depression was already articulated to be one of the most prevalent diagnoses and the leading cause of disability worldwide (WHO, 2018). In primary care practices, the depression is estimated to impact about one-fourth of the patient population (DiMatteo, Lepper, & Croghan, 2000). Cashman et al. (2004) posit that the symptoms of depression may be more debilitating than many chronic medical conditions (e.g., diabetes, hypertension, etc.) Like many other chronic conditions, depression symptoms may fluctuate in severity over time, and be more severe in times of stress and ill physical health (Cashman et al., 2004). Thus, it is understandable that patients with depression may face unique challenges associated with completing their appointments. DiMatteo et al. found that depressed patients were three times more likely to miss their appointments than their non-depressed counterparts. Mackin and Arean (2007) also found that depression severity was a predictor of appointment adherence in older adults.

### *Anxiety*

The evidence widely varies and is mixed overall regarding anxiety as associated with increased missed appointments. For example, Cashman et al. (2004) found that anxiety was associated with higher rates of missed appointments, but DiMatteo et al., (2000) did not find any

relationship. Miller-Matero et al. (2016) suggested that perhaps it is the type of anxiety that is related to increased missed appointment rates. This makes some sense, as patients with illness anxiety might present to their appointments more often than agoraphobic patients. DiMatteo et al. (2000) argued that anxiety diagnoses are quite heterogeneous, ranging from acute symptoms of panic to obsessive-compulsive behaviors, and generalized anxiety disorder. A study by van Dieren, Rijckmans, Mathijssen, Lobbestael, and Arntz (2013) found that the missed appointment rate for patients with a primary anxiety diagnosis was 22.3%.

### ***Cognitive Status and Literacy***

Miller-Matero et al. argued that studies of missed appointment rates and cognitive status and literacy were lacking, thus, they sought to better understand the effect of cognitive status and literacy on missed appointments. They found that depression and limited reading ability were independently related to missed appointment rate (Miller-Matero et al., 2016). Although low math ability was associated with higher rates of missed appointments, it was not significant in comparison to reading ability (Miller-Matero et al., 2016). Cognitive impairment was not found to be related to an increased rate of missed appointments (Miller-Matero et al., 2016). As hypothesized, increased cognitive functioning was a predictor of treatment adherence in older adults (Mackin & Arean, 2007). Mackin and Arean considered these results and posited that memory functioning was a predictor of missed appointment rates in terms of treatment nonadherence. Thus, when examining patients' reasons for missed appointments, memory functioning was indicated to be an important facet of cognition.

### ***Substance Use and Abuse***

It has been consistently demonstrated that alcohol use and abuse as well as substance use and abuse is directly related with greater rates of missed appointments (Cashman et al., 2004).

Many individuals with substance use disorders, including alcohol abuse, have other mental health diagnoses. Thus, when the two are present, individuals have a significantly higher chance of missed appointments (Cashman et al., 2004; Defife et al., 2010; Sparr, Moffitt, & Ward, 1993). Further, Sparr et al. stated this may be because patients with substance use disorders may be more ambivalent about seeking medical attention or psychological help.

### ***Personality Disorders***

Defife et al. (2010) found that patients diagnosed with a personality disorders appear to be as or more likely to complete their appointments than their non-personality disordered counterparts. Patients with a cluster A personality disorder diagnosis were found to have a missed appointment rate of 21.1% (van Dieren et al., 2013). Patients with a cluster B personality disorder diagnosis had a missed appointment rate ranging from 21.3% to 29.3% depending on symptom intensity (van Dieren et al., 2013). Patients with cluster C personality disorders were found to have the lowest rate of missed appointments out of those diagnosed with a personality disorder, with only an 18% missed appointment rate (van Dieren et al., 2013). Van Dieren et al. hypothesized that a potential reason for patients with a cluster B personality diagnosis to have the greatest missed appointment rate and to have a wide range in missed appointment rate was potentially due to higher treatment ambivalence. Regardless, it seems that there is not a uniform missed appointment rate for individuals with personality disorders and it seems to fluctuate by cluster.

### ***Attachment Style***

In a study of patients with diabetes, individuals with an attachment style associated with lower levels of collaboration were associated with higher missed appointment rates when compared to patients with a secure attachment style (Ciechanowski et al., 2006). However,

depression status did have a moderating effect on these results, indicating that depression may be a more relevant variable. Further delineating attachment style and missed appointments, dismissing and fearful attachment styles were related with lower desire for health collaboration, and preoccupied attachment style was associated with greater utilization of health care services, but not better collaboration (Ciechanowski et al., 2006). Preoccupied attachment style was associated with greater primary care costs whereas fearful attachment style was associated with lower primary care costs and visits when compared to patients with a secure attachment style (Ciechanowski et al., 2006). In patients without major depression, higher missed appointment rates were most likely in patients with dismissing or fearful attachment style at 88% (Ciechanowski et al., 2006). This is understandable because both attachment styles do not value dependency on others and are often strongly self-reliant and mistrusting of others (Ciechanowski et al., 2006). Of all the attachment styles, patients with fearful attachment were found to be least likely to schedule their appointments and present to the appointments they scheduled, but more likely to present in crisis (Ciechanowski et al., 2006). Thus, it seems that attachment style does impact whether or not patients present to their appointments.

### ***Other Disorders of Relevance***

A large study by van Dieren et al. (2013) delineated missed appointment rates by psychological disorders. Patients with somatoform disorder as the primary diagnosis had a missed appointment rate of 37.5% when compared to the entire population at the clinic (van Dieren et al., 2013). Following were patients with a primary diagnosis of a psychotic disorder, with a missed appointment rate of 26.5% (van Dieren et al., 2013). Patients with Autism Spectrum Disorder were found to have a missed appointment rate of 20.1% (van Dieren et al., 2013). Patients with mood disorders had a missed appointment rate of 17.9%, and patients with



attention-deficit/hyperactivity disorder (ADHD) had a missed appointment rate of 17.2% (van Dieren et al., 2013). Although Sparr et al. (1993) found that patients with posttraumatic stress disorder (PTSD) were more likely than other patients to miss their appointments, their missed appointment rate was found to be 15.7% (van Dieren et al., 2013). Van Dieren et al. stated that these rates may be due to other factors, such as clinician or time at the practice, to name a couple. These were meant to be rates found at one practice at one location at one point in time. Thus, this is a study that could be replicated at other clinics with completely different missed appointment rates.

### **Logistical Factors**

Defife et al. (2010) found that missed appointment rates varied greatly across primary care practices, patient populations, geographic regions, and health care settings. Further, health system and contextual factors were found to be not as strong in predicting appointment missed appointments than individual characteristics (Boos et al., 2016). However, Cashman et al. (2004) found that issues of transportation, level of provider training, geographic proximity to the clinic, and date and time of appointment were found to have some association with missed appointments. In a systematic literature review, Dantas et al. (2018) found that lead days was the most important predictor of missed appointments. That is the greater the time between the appointment scheduling date and the appointment date, the greater the chances of patients missing their appointments (Dantas et al., 2018). In the majority of studies, day of the week, month of appointment, and appointment time were not found to be statistically significant predictors of missed appointments (Dantas et al., 2018). However, some studies claimed that day of the week was significant, as rates of missed appointments were higher on Mondays or Fridays (Dantas et al., 2018). It was also unclear whether or not type of appointment was a predictor of

missed appointments; some studies argued that new patient visits were most likely to miss appointments, whereas others found that patients were more likely to miss appointments for follow-up visits (Dantas et al., 2018).

### **Practice Characteristics**

Parikh et al. (2010) argue that missed appointment rates likely depend on many practice characteristics, such as local environment, culture of the practice, presence of financial punishment for missed appointments (e.g., missed appointment fee). Interestingly, the majority of studies found that patients were more likely to miss appointments with providers with less experiences (e.g., physicians versus residents and residents versus medical students; Dantas et al., 2018; Nguyen & DeJesus, 2010). A study by Lasser et al. found that site of care was extremely important in terms of predicting missed appointments. Sites with the highest missed appointment rates were found to have high staff turnover and a large proportion of patients with substance use disorders (Lasser et al., 2005).

A practice characteristic that often goes unspoken is the implicit message or rule about how practices operate. That is, that patients should accept a follow-up appointment from their referring provider regardless of patient availability. This often plays out in a phenomenon where patients accept appointments that are not compatible with their schedule and may lead to increased rates of missed appointments. From a patient-centered model, it is reasonable to believe that many patients have the best intentions of presenting to scheduled appointments. However, accepting appointments that conflict with patients' schedules hints at a phenomenon that may be insidious, problematic, or unhelpful in nature. A potential outcome is that only the most satisfied patients with the best relationship to their providers are the ones that present to appointments regardless of goodness-of-fit with their schedule.

## **What We Currently Know Regarding Patients' Explanations for Missed Appointments**

Reasons for missed appointments can be generally categorized into three realms, logistical, administrative, and personal (Defife et al., 2010). Logistical reasons were documented as difficulty with obtaining childcare services, difficulty leaving work, illness, or transportation problems (Defife et al., 2010). Administrative reasons were longer lead days, longer waiting times at the clinic between check in and meeting with the doctor, lack of understanding of the scheduling system, and perceived lack of respect from staff or practitioners (Defife et al., 2010). In addition, many patients reported that they did not understand consequences for the clinic of missed appointments (Lacy, Paulman, Reuter, & Lovejoy, 2004). Individuals who miss appointments more frequently were found to believe that canceled or missed appointments were a regular occurrence without much impact on physicians (Lacy et al., 2004). Some patients even believed that providers would appreciate the break that missed appointments provided them (Lacy et al., 2004). Personal reasons were found to be forgetting, desire to seek out specialist, skepticism of provider's ability, and emotional embarrassment or discomfort (Defife et al., 2010). In addition, negative associations with seeing a doctor, fear of bad news, hesitation due to procedure, or self-resolving symptoms were also documented as personal reasons for missed appointments (Lacy et al., 2004). Last, it is of note that patients who have given feedback regarding missed appointments are likely those who are reasonably comfortable doing so.

## **Patient-Centered Care: What it is, Why It's Important, & How it is Related**

Patient-centered care (PCC) is an approach to healthcare that encourages collaboration and shared decision-making between patients and providers in order to create and maintain an individually-focused and comprehensive care plan (Blount, 2019). PCC is defined by the Institute for Healthcare Improvement as:

care that is truly patient-centered considers patients' cultural traditions, their personal preferences and values, their family situations, and their lifestyles. It makes the patient and their loved ones an integral part of the care team who collaborate with healthcare professionals in making clinical decisions. Patient-centered care puts responsibility for important aspects of self-care and monitoring in patients' hands-along with the tools and support they need to carry out that responsibility. (Institute for Healthcare Improvement, 2020).

The spirit of PCC was borne from the 2001 report put forward by the Institute of Medicine (IOM; now known as the National Academy of Medicine), which established ten rules for improving healthcare. Themes from this report included care based on relationships, values, and needs, as well as patient at the center as the source of control and the individual both receiving and providing information (Institute of Medicine, 2001). PCC is important because it aims for interactions between patients, providers, and the larger healthcare system to be based in respect while optimizing coordination and efficiency (Institute for Healthcare Improvement, 2020).

In theory, when a primary care clinic operates from a PCC framework, one would then expect that missed appointments would subsequently be few and far between. A study by Beach, Keruly, and Moore (2006) of HIV patients found that high patient-centeredness and feeling understood "as a person" (p. 661) by their provider led to fewer missed appointments and overall high quality-of-life. However, a different study by Aboumatar and Cooper (2013) found that physicians' patient-centered care plans often did not address prior missed appointments as a potential barrier to care. Thus, it seems that while PCC is understood to be an essential feature of

modern medicine, especially in primary care, there are improvements to be made specifically regarding missed appointments.

The patient-centered medical home (PCMH) is understood as a model for practices carrying out the intention of the IOM 2001 report with the aims of providing higher-quality and more efficient healthcare. Although there is presently no one protocol for implementing PCMH there are several interventions that have been reliably indicated to have a positive impact on patients, such as case management, team-based interventions, and a usual source of care (Blount, 2019). Thus, when thinking about PCC and integrated primary care (IPC) one would also then be curious about PCMH.

### ***Missed Appointments and Patient-Centered Care***

When systems perceive missed appointments as simply a ‘patient problem,’ it is counter to the concept of patient-centered care. Further, the language that is used is important. The term ‘no-show’ is present in much of the available literature for missed appointments. However, it is a systemic term that is not necessarily in alignment with patient-centered care. Often when rates of missed appointments are measured by a system, the term is no-show rate. Currently, the literature supports that patients are not always no-showing their appointments. Many appointments that are canceled within 24 hours are considered a no-show even when patients cancel due to perceived financial burden on the system. This is not in alignment with patient-centered care. From the patient’s perspective, they canceled their appointment. In addition, there is very limited data available on rates for appointments being miscoded in electronic medical records. A system that is patient-centered may consider missed appointments to be a systemic problem, one that can be thoroughly evaluated by a variety of methods in order to best understand the phenomenon.

Measurement has been demonstrated to be an important facet of providing best patient-centered care. How best-practice and good patient-centered care are measured is important to consider generally, but especially with regard to missed appointments. Rate of completed appointments is not the sole metric for evaluation of good patient-centered care. Other essential aspects that may be measured are, for example, establishing therapeutic alliance, sharing power and responsibility, viewing the patient as a person, and taking a biopsychosocial perspective (Fix et al., 2017).

### **Current and Past Interventions: What's Worked and What Hasn't**

Since the recognition of the vast significant negative impacts of missed appointments in primary care, interventions have been created and tested to determine efficacy reducing missed appointment frequency and percentage. Various interventions have been implemented and tested to be effective in reducing missed appointments, for example live nurse-initiated phone call reminders (Clouse, Williams, & Harmon, 2017), text appointment reminders (Percac-Lima, Singer, Cronin, Chang, & Zai, 2016), and double-booking (Giachetti, 2008). A study published in JAMA Internal Medicine by Chaiyachati et al. (2018) trialed complementary ridesharing services broadly to Medicaid patients and found that the rate of missed primary care appointments did not improve.

### ***Open-Access Scheduling Works Well***

Perhaps the most promising intervention has been the initiation of open-access or advanced access scheduling, a scheduling paradigm that offers patients appointments on the day they call regardless of the reason for the visit (Murray & Tantau, 2000). A study by Cameron, Sadler, and Lawson (2010) successfully implemented open-access scheduling into an academic

teaching primary care practice, which led to significant reductions in appointment wait times and missed appointments.

### ***Telehealth May Be a Viable Solution***

The World Health Organization (WHO) defines telehealth as “the use of telecommunications and virtual technology to deliver health care outside of traditional health-care facilities” and WHO explicitly outlines that “vulnerable groups,” which include those who experience chronic illness as well as older adults, may especially benefit from telehealth (WHO, 2020, Telehealth section). Telehealth serves to potentially eliminate a few barriers to appointment adherence, for example proximity to hospital or clinic, trouble finding parking, and cost (Kruse et al., 2017). Although not articulated in the literature, telehealth appointment notifications often come via email link, which may also increase adherence to appointments addressing the problem of patients forgetting about their appointments. Last, and arguably most importantly, telehealth empowers patients and is associated with both patient satisfaction and patient-centered care.

### ***Many Current Interventions Are Not Multifaceted***

The majority of available literature has sought to understand missed appointments on a singular facet, mainly individual demographic and psychosocial bases. For example, age, race, ethnicity, socioeconomic status, mental health diagnoses, cognition, and attachment have all been examined in the present literature. Other research has looked at logistical and practice characteristics, seeking to identify if it is aspects of the site of care that is important. The smallest realm of current research is quite recent, published in the past five years, and looks at patients’ reasons for missed appointments. When examining missed appointments in primary care, an essential element that has yet to be expanded on with regard to missed appointments is

patient-centered care. It is an integral component of gold-standard care for patients, respecting their decision-making autonomy, shifting the importance of perspective from the system to the patient, and for understanding why patients do not present to their scheduled appointments.

Currently, the field has proposed several different interventions. Most interventions seem to be focused on one facet of missed appointments despite research demonstrating the multifaceted nature of missed appointments. The lack of success with many interventions indicates that further research is warranted to fully understand the phenomenon of missed appointments in primary care.



## **Chapter 3: Methods**

### **Supplementing Quantitative Results with Qualitative Inquiry**

In many ways, the utility of mixed methods approaches, applying both qualitative and quantitative methods to study all aspects of a particular phenomenon, has only recently been recognized (Todd, Nerlich, McKeown, & Clarke 2004). Historically, past researchers studying missed appointments have predominantly used quantitative methods of investigation. Since the 1960s, qualitative methods of investigation have begun gaining momentum for studying a variety of different topics (Todd et al., 2004). A non-robust and oversimplified way of delineating the two would be to say that quantitative research is interested in measuring a phenomenon whereas qualitative research is interested in the interpretative understanding the meaning behind a phenomenon. Further, one may argue that these two research approaches stand to represent more than simply how to analyze data, rather representing ideologies or beliefs about how conclusions to difficult questions are answered. Qualitative approaches focus on understanding subjects' behavior, thinking, acting, in order to gain a deeper, richer, and more meaningful understanding of their experience (Todd et al., 2004). As aforementioned, present literature on missed appointments is saturated with quantitative analyses. Applying qualitative analysis may aid in exploration of the phenomenon of missed appointments from a different perspective, the patient's perspective.

### **IPA: Meaning Making of Lived Experience through Purposeful United Inquiry**

Interpretative phenomenological analysis (IPA) is a qualitative approach to examine the lived experience of a participant (Smith, 2017). IPA was first articulated in 1996 by Jonathan A. Smith for use in health psychology, specifically used to understand patients' lived experience of chronic illness. IPA has its roots in three theories: (a) phenomenology, (b) hermeneutics, and

(c) idiography, and IPA aims to, as much as possible, examine personal experience in its own terms (Smith, 2017). Psychology's interest in subjective experience can be dated further back, for example with Gordon W. Allport's work in 1942. Allport (1942) argued for the importance of critical scientific inquiry into the subjective, versus "uncritical" (p. 3) approaches. Other examples of psychologists interested in individual lived experiences would be William James and Carl Rogers.

IPA asserts it is exploring the subject's lived experience, which may be understood as an interpretative endeavor (Smith, 2017). As both the researcher and the participants are seeking to make sense of an experience, it may be understood as a "double hermeneutic" or as "the researcher is trying to make sense of the participants trying to make sense of their world" (Smith & Osborn, 2015, p. 26). The interpretive analysis then is intertwined with the participant's account. A goal is that by the final report on the findings that subjects' voices are still heard, allowing for "both convergence and divergence within the study sample" (Smith, 2017, p. 303).

IPA describes data collection as purposeful, identifying a sample that may be understood as homogeneous in some respects, in order to conduct an in-depth semi-structured interview (Smith, 2017). The research interview holds a form of question and answer, it attempts to do so flexibly with room for participants to be further questioned on areas that arise. Ideally, interviews are transcribed in whole rather than shorthand, then examined by way of idiographic qualitative analysis. First, the researcher examines each case for experiential themes then looks for patterns between cases. Smith discusses finding the pearl, a statement made by one patient that resonates across participants and may give more information regarding the lived experience of all those who experience the phenomenon. However, IPA also recognizes the limitations of language, specifically that articulating experience may leave some aspects unsaid (Smith & Osborn, 2015).

As IPA initially gained traction in health psychology, it was used broadly both within and beyond psychology. As aforementioned within integrated primary care, the importance of patient-centered care has been recognized with strategies to make care more patient-centered. Similarly, IPA may be understood as person-centered, with interest on the uniqueness of the individual and their opinions and behaviors (Kiyimba, Lester, & O'Reilly, 2018). Within psychology, IPA lends itself well to positive psychology, as it does not look solely at pathology, but also looks to normalize experiences between subjects (Smith, 2017). IPA recognizes the connection between individual's spoken word, their thinking, and their overall emotional state (Smith & Osborn, 2015). Participants may not be able to identify or articulate the meaning behind a phenomenon. Thus, the IPA researcher aligns with the participant while still seeking to illuminate the meaning behind a phenomenon that is not yet fully understood.

### **Secondary Analysis of Archived Qualitative Data: Underutilized Gems**

Although qualitative data are rich and detail-oriented, often times they are underutilized as an archived data source for secondary analysis (Corti & Thompson, 2011). Quantitative data are often reanalyzed, reworked, and compared to contemporary data, but too often qualitative data are not. Further, qualitative data offer insights not only to the phenomenon itself, but also may be utilized to understand the culture during which the data was collected. Thus, secondary analyses of qualitative datasets may be used for either historical or contemporary research. As Corti and Thompson clearly posit, the format and scope of data typically determine its utility for secondary analysis. Often, barriers to secondary analysis of archived qualitative data have to do with researchers' displeasure of sharing a valued personal "possession" (p. 13), however, other concerns have to do with ethics, consent, context, lack of familiarity with methods of data collection, lack of data-sharing organizations, fear of misinterpretation, and concerns regarding

intellectual property rights (Corti & Thompson, 2011). These barriers are not only legitimate, but also have deeper implications.

Despite the aforementioned concerns, secondary analysis of archived qualitative data is important for four main reasons: first, because secondary analysis utilizes material that may be expensive and time-consuming to collect; second, it allows for exploration of the data from a fresh perspective; third, it enables to research to be compared in various contexts (e.g., over time, cross-culturally, geographically, etc.); and last, verification of the initial study may be conducted (Corti & Thompson, 2011, p. 23). Thus, archived qualitative data can be utilized for secondary analysis for a variety of reasons, with a variety of potential positive outcomes.

### **Defining the Phenomenon: Missed Appointments in Integrated Primary Care**

In this study, *missed appointments* can be defined as an appointment that either has been canceled within 24 hours of the start time or one that has not been canceled by the patient, but the patient does not present to the appointment (Triemstra & Lowery, 2018). The limited research on why patients miss appointments asserts that this phenomenon occurs for a variety of reasons, for example, transportation problems (Chaiyachati et al., 2018). However, when interventions were created, employed, and tested on their effectiveness at reducing missed appointments, some of them did not reduce missed appointments (Chaiyachati et al., 2018). Thus, this hints at a more complex phenomenon with multidimensional components driving the experience. *Integrated Primary Care* (IPC) refers to primary care practices in which behavioral health clinicians provide mental health consultation, assessment, and therapy, to patients (Blount, 1998). IPCs may be either a part of an Academic Medical Center (AMC) or not, thus, they may have residents or students training alongside attending staff (e.g., physicians), or not.

## **Setting**

The present study is an archival data analysis of data initially collected in an integrated primary care clinic that is part of an AMC in an urban Massachusetts city. It initially was a small private practice but grew into an integrated primary care practice and residence training site. It is a level three patient-centered medical home (PCMH), which means that it is the highest possible, aligning with the spirit of patient-centered care practices.

## **Participants**

Within the archival dataset, patients were initially identified via their electronic medical record (EMR) as having missed an appointment between January 1st, 2018 and March 31st, 2018. Patients over the age of 18 years old who spoke English were contacted via telephone and included in the study upon their consent. Patients who did not consent were not asked any questions and were not included in the study. The archival dataset included data collected from 62 patients interviewed via phone; 44 identified as female and 18 identified as male. Fifty patients missed a family health appointment and 12 missed a behavioral health appointment. One individual identified as American Indian or Alaska Native, one identified as Native Hawaiian or Other Pacific Islander, two identified as Asian, six identified as Hispanic or Latino, 11 identified as Black or African American, 12 identified as Multiracial, and 29 identified as White. At the time of the present study, no participants were contacted. Patients were interviewed in a prior study and their responses were documented in an excel spreadsheet during the prior study, which I accessed for my research purposes thereafter.

## **Procedure**

As this was a study of an archival dataset, I reflected on the procedure for IPA. Since participant responses were already transcribed in an excel spreadsheet, each interview was coded

for themes. Themes were then further categorized into superordinate themes.

### **Credibility, Reliability, and Investigator Bias**

Within quantitative research, concepts such as reliability and validity are utilized in order to articulate the strength and quality of the data. In terms of qualitative research methods, concepts such as integrity, transparency, transferability, ethicality, and reflexivity are also utilized as qualities of useful data (Kiyimba et al., 2018). However, due to the heterogeneous nature of qualitative methods, some of these concepts are more significant for IPA than others. Smith and Osborn (2015) outlined components of IPA structured interviews in order to identify methods of enhancing reliability. Specifically, they stated that using short and specific questions, reading each question exactly as on the schedule in an identical order across participants, and having pre-coded response categories. In order to ensure the credibility of IPA data, transcription of data must be done with accuracy and specificity (Alase, 2017). However, Kiyimba et al. recognized the utility of naturally occurring data, or data that can be utilized as research data, but was not initially collected with IPA analyses in mind. For these data, more flexibility needs to be offered, in order to make use of it. However, Kiyimba et al. also warns about using data that is clearly not useful for an IPA and provides examples such as missing responses from participants and difficulty reading handwritten transcriptions, to name a few.

In terms of explicit and implicit biases, researchers should remove their personal experience from the “lived experiences” of the research participants should they find that present (Alase, 2017). IPA values researchers’ reflexivity, or the extent to which one is aware of how their personal values, beliefs, and experiences may influence their research (Kiyimba et al., 2018). Kiyimba et al. assert that reflexivity is not simply acknowledging biases in the way that data was collected and/or interpreted, but rather it is also about presenting where one stands in

relation to the data. Being aware of one's beliefs that may influence ability to be neutral and articulating them is important as to not dismiss potential research biases that could influence the interpretive process.

The following list summarizes my beliefs, biases, and values regarding my perspective on missed appointments in primary care:

1. I believe that sometimes patients are genuinely unable to cancel their appointments for a variety of reasons although they may truly want to do so.
2. I assume that most individuals who present to primary care will miss an appointment at some point during their life.
3. I believe that integrated primary care (IPC) and patient-centered care (PCC) are invaluable aspects to medical care and that care received at a patient-centered medical home (PCMH) is vastly better than care received at a primary care practice that does not employ this model.
4. I assume that some patients will have attempted to cancel their missed appointment in advance but were unable to do so due to administrative problems (e.g., long hold times on phone). Similarly, I assume that some patients will have canceled their appointment in advance, but their appointment will not have been marked as canceled due to an administrative error.

Although I did not conduct the actual interviews in this secondary analysis of archived data, if I had, I would have reflected on various questions in a research journal prior to interviews, modeled from Austin (2012):

1. What outside factors (e.g., telephone versus in person, time of day, etc.) might influence how I engage the participant?

2. Am I hoping to hear one specific story?
  - a. Am I asking my questions in order to hear one specific story?
3. How will I know that I am being an ethical researcher?
4. How will I know if I am interfering with the participant's description of the phenomenon?
5. Do I have any assumptions or biases about these particular participants?
6. How will I accept and interpret stories I experience as different or starkly divergent from what I expect?

### **Data Analysis**

Each of the 62 interviews was analyzed to identify potential themes related to why patients missed appointments, if they tried to cancel their appointment, their ideas for how to make it easier for them to present to their appointments, and their stance on their overall quality of care received. The process began with reading over the various interviews and highlighting potential themes and jotting down notes and questions while reading them over. Familiarizing oneself with the dataset is an important step in engaging with the participant's lived experience (Smith & Osborn, 2015). As the clustering of themes begins to emerge within various participants' interviews, checking back to the transcripts to connect the themes to the primary material (i.e., stated words of participants) is important. Checking and rechecking themes is an iterative and repetitive process. The next step involves creating a table of the themes, organized to represent participants' experiences. Clusters are given names and represent the superordinate themes.

The patients that were present in the data were targeted and selected due to a singular similarity with one another, that they missed an appointment at the primary care clinic. IPA



expects both similarities and discrepancies within the data as well. Thus, themes that were different from one another were noted and separated. These themes were then grouped under superordinate categories.

## Chapter 4: Results

### Analysis

In the archival dataset, participants demographics were listed as follows: 44 identified as female and 18 identified as male. Fifty patients missed a family health appointment and 12 missed a behavioral health appointment. One individual identified as American Indian or Alaska Native, one identified as Native Hawaiian or Other Pacific Islander, two identified as Asian, 6 identified as Hispanic or Latino, 11 identified as Black or African American, 12 identified as Multiracial, and 29 identified as White. Of the 62 missed appointments, 24 missed appointments were with attending doctors, two missed appointments scheduled with a licensed staff psychologist, one missed appointment with a staff physician's assistant, and six missed appointments were with registered nursing staff. The remaining 29 missed appointments were scheduled with medical residents, a behavioral health postdoctoral fellow, behavioral health practicum students, interns.

In the archival dataset, participants' responses to four questions were recorded. The four participants were asked these four questions: (a) What got in the way of presenting to your appointment? (b) Did you try to cancel your appointment? (c) Is there anything we can do to make it easier for you to make your appointments? and (d) is there anything else we should know to help improve your care? A challenge to the data analysis was that participants responses were rather brief and there was not documentation of follow-up questions or statements made by the researcher to the participants in the dataset. Participants responses to each of the four questions above may be seen in charts 1–4, with each chart representing one of the questions above.

Question 1, what got in the way of presenting to your appointment, aims to better understand participants' experiences with missed appointments. Specifically, the reasons that

participants missed their appointments. Looking at participants' responses, there were several theme clusters that appeared. These theme clusters were further grouped into superordinate themes (see table 1). Five superordinate themes emerged: unexpected logistical challenge (N = 23), forgetfulness (N = 19), known scheduling conflict (N = 12), appointment no longer needed (N = 7), and problem with staff (N = 1). Within superordinate theme unexpected logistical challenge was seven theme clusters: transportation problem (including not feeling well enough to travel; N = 7), childcare (N = 4), insurance change or problem (N = 3), weather (N = 5), overslept (N = 2), incarcerated (N = 1), and gave birth (N = 1). Regarding superordinate theme forgetfulness, two theme clusters emerged, that participants simply forgot (N = 15) and that there was no appointment reminder (N = 4). For superordinate theme 'known scheduling conflict,' four theme clusters emerged: work (N = 8), class (N = 2), time of appointment (N = 1), and appointment scheduled with new doctor (N = 1). Regarding superordinate theme appointment no longer needed, three theme clusters emerged: tried to cancel; an administrative error (N = 5), tried to cancel; on hold for too long (N = 1), and referred to specialist (N = 1). Of superordinate theme problem with staff, thankfully, only one (N = 1) participant experienced this, highlighting theme cluster felt dismissed by staff.

Question 2, did you try to cancel your appointment, aimed to highlight potential problems with workflow within the clinic. There were five theme clusters that emerged with high similarity that allowed for two superordinate themes to be clearly delineated: no (N = 41) and yes (N = 21). The most common reason that participants were unable to cancel their appointment was due to forgetting (N = 39). The superordinate theme yes was comprised of several theme clusters: yes, canceled and rescheduled (N = 11), yes, left voicemail (N = 2), and yes, attempted to cancel (N = 8). For the 11 subjects that called and were able to reschedule their appointment,

administrative error on the part of the clinic was illuminated. Specifically, that appointment cancelations were not reflected in participants' electronic medical record (EMR). For participants that attempted to cancel their appointments, an exemplar quote identified being on hold on the phone as a barrier to canceling their appointment.

Question 3, is there anything we can do to make it easier for you to make your appointments, aims to highlight potential barriers to care that may be fertile ground for future interventions. There were several theme clusters, which fall under three superordinate themes: no (N = 35), appointment reminders (N = 17), and clinic improvements (N = 10). Appointment reminders were delineated by three theme clusters: electronic reminders (email, text, or phone application; N = 11), phone call reminders (N = 4), and non-specific requests for reminders (N = 2). Clinic improvements theme clusters were: shorter waiting times (N = 1), improve communication between front desk and staff (N = 2), increased clinic hours (N = 3), more staff on phones (N = 2), accept more insurance types (N = 1), and provide transportation (N = 1).

The last question, question 4, is there anything else we should know to help improve your care, aimed to use the interview as an opportunity to elicit respondents' suggestions for improving their care. Participants' responses were grouped into seven theme clusters and three superordinate themes: no (N = 50), improve workflow (N = 10), and reduce barriers (N = 2). Workflow problems highlighted were lack of appointment reminders (N = 3), shorter hold times (on phones; N = 4), shorter wait times (in office; N = 2), and for staff to review patient records prior to appointments (N = 1). Barriers were highlighted as too few insurance types accepted (N = 1) and parking as expensive (N = 1).

## **Chapter 5: Discussion, Limitations, and Implications**

The present research sought to examine the lived experiences of patients who missed their appointment at an integrated primary care clinic in order to highlight potential barriers to care. Additionally, this research may be useful in creating future interventions tailored at reducing those barriers to care and, ultimately, mitigating future missed appointments. This section considers the findings from the present study in light of current literature about why patients miss their appointments. Next, limitations to this study are discussed along with future areas of research. Implications for improving patients' adherence with scheduled appointments and mitigating future missed appointments are discussed. Last, I offer a personal reflection on these findings in light of my experience as a behavioral health clinician trainee in an integrated primary care clinic.

### **Why Patients Missed Appointments at an Integrated Primary Care Clinic**

Five overarching themes emerged from this study, which suggest that the phenomenon of missing appointments at an IPC clinic is more complex than perhaps one might think. In order of frequency they were: (a) unexpected logistical challenge (N = 23), (b) forgetfulness (N = 19), (c) known scheduling conflict (N = 12), (d) appointment no longer needed (N = 9), and (e) problem with staff (N = 1). Some of these themes were reflected in the present literature and some were not. Further, the theme clusters are also discussed within each superordinate theme, which was not articulated in the current literature.

#### ***Patients Experienced an Unexpected Logistical Challenge***

The most common reason that patients missed their appointment was due to an unexpected logistical challenge. Patients highlighted transportation problems (including feeling too ill to travel), childcare responsibilities, insurance change or problem, inclement weather,

oversleeping, incarceration, and giving birth within this theme. Elements of this theme were identified in other studies, for example in Van der Meer and Loock's (2008) prospective control-matched study transportation constraints were identified as the main barrier to adhering to a follow-up appointment. A recent qualitative study by Brown et al. (2020) identified transportation problems, poor health, family obligations, and work requirements as reasons identified by 43 low-income West Philadelphians for missing their primary care appointment. Thus, while there are similarities between studies, the present study sought to examine patients presenting to both primary care and primary care behavioral health (PBCH) appointments within an IPC clinic. Further, the present study was conducted at a level-three PCMH within an AMC, which was not done by prior studies. Thus, in addition to the additional reasons for missed appointments and larger participant pool, the present study sought to understand the phenomenon within a similar but quite different clinic format.

In the study by Brown et al. (2020), they categorized personal health problems and transportation within two separate themes. However, in the present study, patients articulated that their health impacted their ability to travel and that they did not have another individual present to transport them to and from their appointment. Thus, these two phenomena were so closely intertwined that it did not make sense for the present study to separate them. Further, patients in the study by Brown et al. typically presented to their appointments via a combination of transportation methods, for example, walking and taking the bus. For individuals in the present study, this was not specified.

A retrospective study was conducted by Kaplan-Lewis and Percac-Lima (2013) at Massachusetts General Hospital–Chelsea (MGH-C), in which 273 English and Spanish-speaking patients were contacted regarding their reason for missing their scheduled primary care

appointment. They reported that only three of 273 patients contacted reported problems with their health insurance. Kaplan-Lewis and Percac-Lima suggested this was lower than expected and that, perhaps, this is due to health insurance as mandatory in Massachusetts. The low number of patients who identified health insurance problems as the primary barrier to presenting for their appointment was surprising considering that patients with unknown health insurance or who were self-insured were more likely to miss appointments when compared with their insured counterparts. Further, Kaplan-Lewis and Percac-Lima speculated that perhaps these individuals were undocumented immigrants or representative of a more vulnerable subset of patients. This is possible for the present study as well, although not verifiable at this time.

#### ***Patients Forgot About Their Scheduled Appointment***

The second most common theme was that patients forgot their appointment. Kaplan-Lewis and Percac-Lima (2013) found that the two most common reasons for patients missing their appointments were that they forgot and miscommunication. They reported that inclement weather was likely not reported as a barrier due to the seasons of data collection for the study being spring and summer. Interestingly, the present study was done at an IPC within an AMC, which has an electronic medical record (EMR) with electronic appointment reminders that patients can set up online. This system then sends text message alerts reminding patients to present to their appointment. If patients forgot about their appointment, this serves to remind them. Similar to the present study, the study by Kaplan-Lewis and Percac-Lima at MGH-C, utilized an electronic appointment reminder system. However, it was not clear whether or not the patient was expected to go online to set this up as is the case in the present study. Thus, a likely barrier to this intervention is threefold in nature: (a) that patients were expected to know that the

electronic reminder system exists, (b) patients know how to access it, and (c) patients know how to set up the appointment reminder themselves.

The phenomenon of forgetting about a scheduled appointment is not solely a problem in primary care in the Eastern United States as the studies above may imply. A study by Roberts, Callanan, and Tubridy (2011) in Ireland of patients at a neurology clinic found similar results in terms of forgetfulness. Thus, the phenomenon of forgetting about scheduled appointments span countries, clinic types, as well as medical specialties and behavioral health.

### ***Patients Identified a Known Scheduling Conflict***

A third theme identified in the present study was a known scheduling conflict, such as work, class, problematic time of appointment, and appointment scheduled with a new doctor. This was articulated in the recent study by Brown et al. (2020) in terms of work conflict. However, the study by Brown et al. did not break down work conflict into two categories, known and unknown. In the present study, all individuals who identified work as a barrier to their appointment reported knowing that the appointment was scheduled in conflict with their work schedule. Brown et al. included an example from a participant who reported the hope to take time off work in order to attend their scheduled appointment, but who was unable to do so. This example was relevant to a participant in the present study who reported their PCP was only available during their work hours and that they scheduled with that PCP with the intention of getting time off of work and were unable to do so.

### ***Patients No Longer Needed Their Scheduled Appointment***

The fourth theme identified in the present study was that the specific appointment scheduled was no longer needed, perhaps for a variety of reasons. Respondents in the present study reported they tried to cancel and were successful in doing so, tried to cancel and were



unsuccessful in doing so, and they were referred to a specialist. Participants' responses suggested an administrative workflow error led to the appointment being marked as a missed appointment. Within the archival dataset, it was not always clear whether or not the patient canceled within 24 hours of their appointment or further in advance. Thus, while it was likely an administrative error, the appointment may have been coded by staff as a no-show due to canceling within the 24-hour timeframe. For one individual they were on hold with staff too long and gave up trying to cancel their appointment. Last, two individuals were referred to specialty care within the greater hospital system and no longer needed the appointment.

The aforementioned study by Kaplan-Lewis and Percac-Lima (2013) at MGH-C described the presence of two systems, an EMR system and an electronic appointment reminder system, with the intention of these systems being linked. For example, if a patient was very ill and required hospitalization, upon being checked into the hospital, their primary care appointment would be marked as canceled rather than missed. However, Kaplan-Lewis and Percac-Lima suggested the link between the EMR and electronic reminder system was flawed. Although in the present study only one patient missed their appointment due to being in a different part of the hospital, this suggests that the clinic could consider implementation of a similar feature in order to accurately capture missed appointments versus presentation to the hospital.

#### ***A Patient Reported a Problem with a Staff Member***

Thankfully, only one patient identified a problem with a staff member as a reason they missed their appointment. Specifically, they reported feeling as though the staff rushed through the appointment and dismissed their concerns. This problem was highlighted in a literature review by Deyo and Inui (1980) who reported that elements of the patient-provider interaction

such as patient satisfaction and expectations were important in understanding why appointments were not completed. Additionally, a study by Lacy et al. (2004) in Nebraska identified perceived disrespect as a primary reason that patients missed appointments without canceling in advance.

Ultimately, there were many different reasons that participants offered for why they missed their scheduled appointments. Within each superordinate theme there were various theme clusters, which indicated that the phenomenon is complex. Research indicates that this is not solely a “primary care problem,” but rather a general problem experienced by a variety of disciplines in a variety of countries. Missed appointments result in interrupted continuity of care and overall are understood to negatively impact patients’ overall quality of care with negative health implications. The present study also sought to understand if patients attempt to cancel their missed appointments or not.

### **Most Patients Did Not Attempt to Cancel Their Missed Appointment**

As one of the most frequent reasons that participants missed their appointments was that they forgot, it is then not surprising that the majority of respondents also did not attempt to cancel their appointment in advance. However, what is surprising is the sheer number of individuals who attempted to do so, and their appointment was still marked as a no-show. Out of 62 respondents in the archival dataset, 21 attempted to cancel their appointment in advance (approximately 34% of participants). With such a high number of individuals canceling and successfully rescheduling their appointment (N= 11), it is unclear why the appointment was marked as a no-show. As aforementioned, with the archival dataset it is unclear whether or not the cancelation occurred within 24 hours of their scheduled appointment, thus it may be a clinic policy that led to the appointment being labeled as missed. On the other side of the coin is the possibility that individuals canceled more than 24 hours in advance of their scheduled

appointment and that there is a workflow administrative problem that led to the appointments being marked as a no-show. Although the present study utilized an archival dataset, it would be interesting to know if participants who canceled in advance and then still had their appointment marked as a no-show would consider canceling in advance again. It may be expected that some participants may not be willing to cancel in the future if their appointment ultimately was still marked as a no-show.

A study by Lacy et al. (2004) sought to understand why their patients do not call and do not show. Thus, they limited participants to individuals who did not cancel and did not show versus patients who called and who didn't. The results of Lacy et al.'s semi-structured interviews of 34 patients who did not attempt to call to cancel indicated that they did so for specific reasons, such as perceived disrespect, a general lack of understanding for the appointment system, and subjective emotional experience. Thus, these results suggest there are likely reasons beyond forgetting that led to appointments not being canceled and not being kept.

### **Most Patients Do Not Suggest Appointment Reminders as an Intervention**

Although the majority of interventions aimed to lower the no-show rate, or the number of missed appointments, involve reminder systems of some sort (e.g., phone call, text, mailed reminders, etc.), when asked for suggestions, the majority of participants did not offer appointment reminders as an intervention. The majority of patients reported that there is nothing that could be done to make it easier for them to present to their appointment. Some respondents reported that while they wanted reminders, they wanted specific types of reminders, which were broken down into theme clusters. Earlier research on interventions primarily utilized phone call reminders and mail reminders for patients (e.g., Deyo & Inui, 1980) whereas more recent research tended to utilize electronic methods (e.g., Kaplan-Lewis & Percac-Lima, 2013). In the

present study, the majority of participants who reported they want reminders requested electronic reminders, whereas a smaller subset requested a phone call from clinic staff.

Interestingly, out of the 62 participants interviewed, 10 identified that clinic improvements would decrease their missed appointments. Participants asked for shorter wait times at the clinic, staff communication improvements, increased clinic hours, more staff available to take phone calls, wider range of insurance accepted, and transportation provided. There has been a plethora of studies that have aimed to improve missed appointments by providing transportation to and from appointments. For example, a recent study by Chaiyachati et al. (2018) testing offering 394 patients in West Philadelphia a rideshare to and from their primary care appointment found that only 85 individuals successfully utilized the rideshare. Overall, the study reported no change in missed appointments between the intervention group and the control group. The missed appointment rate hovered at 36.5% in the intervention group and 36.7% in the control group.

In terms of interventions aimed at reducing wait times for appointments, the most successful has been open-access scheduling, in which patients can call in and see a provider on the same day they call. A recent systematic literature review by Ansell, Crispo, Simard, and Bjerre (2017) identified open access as a successful intervention in the Canadian primary care literature for increasing access to care but not for reducing no-show rate. However, a study by DuMontier, Rindfleisch, Pruszynski, and Frey (2013) indicated that when utilized with other interventions, open access scheduling is effective in reducing no-show rates.

### **Most Patients Are Satisfied with Their Current Care**

Out of the 62 participants in the present study, 50 reported that they cannot think of ways to improve their current quality of care. Respondents reported positive experiences both with

attending physicians as well as primary care residents. Of the remaining 12, 10 reported they wanted workflow improvements similar to those aforementioned, like shorter wait times, shorter hold times on phone, and appointment reminders, and two reported reduced barriers to care. Specifically, one participant reported acceptance of more insurance types and the other reported wanting free parking. While shorter wait times have been strongly associated with increased access to care, it has not been as consistently associated with lower no-show rates.

### **Limitations of the Present Study**

A major limitation of the present study is that it was an analysis of an archival dataset. While it is important for the field of psychology as a whole to utilize archival datasets more often than has been done historically for a variety of reasons, it presents unique challenges to qualitative methods of inquiry. For example, within IPA the aim is to more completely understand the phenomenon via the lived experience of participants. A major limitation is that if the researcher is not also the individual who collected the initial dataset that there is a richness and a depth to the data that may be lost by the added layer between participants and researcher. Even if the researcher was the individual who collected the initial dataset, if the dataset was not collected with a particular type of analysis in mind, for example IPA, then it can also feel blunted in terms of depth and nuance available. Thus, the researcher must find a balance between the aforementioned limitations and the equally impactful access to a yet unanalyzed dataset.

Additionally, also the results of the present study were echoed in other studies in the US and other countries, it is difficult to generalize these results to all primary care clinics. As the study was conducted at an AMC resident training IPC clinic, and level three PCMH, it makes the site particularly rare, thus limiting generalizability further. If this study were replicated at other sites with similar results, that would increase generalizability.

Another limitation is researcher bias, which is often introduced in the semi-structured interviews and analyses. As this was an archival dataset, the initial researcher bias was managed during that study. For the analyses, the bias was managed by having an auditor review the interview, themes, and superordinate themes that emerged.

It is presumable that each IPC clinic has different standards for what qualifies as a no-show to an appointment. While some clinics may understand no-shows to include cancellations within 24 hours, others may not. Thus, it is a challenge to study the phenomenon as a whole as different standards exist for different clinics.

### **Implications and Future Research**

The main implication from the present study is that the phenomenon of missed appointments at an IPC and PCMH clinic, is complex in nature and although there are common reasons for missed appointments, it is linked to a variety of individual challenges. Thus, it makes sense of the present literature that demonstrates that implementation of a single intervention to address missed appointments is not as effective as multi-method interventions (DuMontier et al., 2013). Thus, future research may be twofold in nature: first, to assess what the most frequent barriers to presenting to appointments are for a particular practice, and second, to create and implement a multi-method intervention aimed at the identified barriers. Specifically, a quality assessment project and subsequent quality improvement project format may be considered by future researchers.

A point of tension apparent in the literature and from the dataset is whether or not patients truly forgot their appointment or whether that is what they told researchers. Much of the research available hints at more complexity, such as emotional challenges (e.g., fear of going to the doctor; Defife et al., 2010; Smith & Osborn, 2015). If this is the case, then further research to

understand may aim to understand the emotional challenges in greater depth as well as patients' perceptions of these challenges as something that may be overcome or not. Additionally, when there are known scheduling conflicts (e.g., work), patients often reported the phenomenon of making the appointment anyway, perhaps to please their doctor or align with their recommendations. Increased flexibility in terms of follow-up appointments may be helpful in this area.

Last, future multi-dimensional interventions may consider targeting how to know when appointments are no longer needed. In the present study, patients referred to specialists still kept their appointment with their PCP. This makes sense in terms of continuity of care but does not make sense in terms of reducing missed appointments.

### **Personal Reflection**

At the time of the analysis, I was no longer a behavioral health provider in primary care. However, on the flip side of the coin, I am a patient at a different primary care practice that does not have integrated behavioral health clinicians. There were two noticeable moments that happened in the process of doing this project and I want to chronologically reflect on them as they pertain to the topic. The first was an instance in which I made a follow-up appointment at the primary care clinic and no-call no-showed it myself. Upon realization, I was immediately embarrassed, especially as a researcher who is studying this phenomenon. Prior to the appointment, about a week or so in advance, I got a text message asking for reply to confirm "YES" or cancel "NO" my scheduled appointment. Intending to make my appointment, I confirmed by texting "YES." Although I got that text reminder prior to the appointment, I forgot on the actual date of the scheduled appointment, staying later at work than I typically do. I realized I missed the appointment on the ride home from work. I called to apologize and

reschedule and ended up reaching the clinic voicemail. When I made a follow-up appointment and presented to the clinic, I met with an advance practice nurse practitioner rather than my typical PCP. She still discussed the missed appointment in a nonjudgmental and open way. I appreciated the open line of communication (and I joked about my dissertation, which she found humorous).

About six months or more following that event, following several completed appointments, I realized I could not attend a scheduled follow-up appointment due to an interview for a postdoctoral fellowship. Although I was called by an actual staff member, which went to my voicemail as it was during my work hours, I ended up canceling the appointment over a week in advance via their text message scheduling system. However, this time, I replied “NO” to the prompt in order to cancel my appointment. I got an instantaneous text message back stating that my appointment was canceled and to please call the clinic to reschedule. As a patient, this was valuable for several reasons: one, it saved me from trying to carve out time at work to call within clinic hours to cancel and, two, I was pleased that I was still eligible for the text message reminders following a no-call no-show appointment. In my research, I did not find that was always the case.

These experiences highlighted the humanness within me and within the participants in the study and served to remind me that, despite our best efforts, we still make mistakes and miss our appointments. I am grateful for the way in which the clinic responded and handled the no-call no-show, and I myself am a satisfied patient at that integrated primary care clinic.



## References

- Aboumatar, H. J. & Cooper, L. A. (2013). Contextualizing patient-centered care to fulfill its promise of better healthcare outcomes: Beyond who, what, and why. *Annals of Internal Medicine*, 158, 628–629. <https://doi.org/10.7326/0003-4819-158-8-201304160-00008>
- Alase, A. (2017). The interpretative phenomenological analysis (IPA): A guide to a good qualitative research approach. *International Journal of Education & Literacy Studies*, 5, 9–19. <https://doi.org/10.7575/aiac.ijels.v.5n.2p.9>
- Alonso, Y. (2004). The biopsychosocial model in medical research: The evolution of the health concept over the last two decades. *Patient Education and Counseling*, 53, 239–244. [https://doi.org/10.1016/S0738-3991\(03\)00146-0](https://doi.org/10.1016/S0738-3991(03)00146-0)
- Allport, G. W. (1942). *The use of personal documents in psychological science*. New York, Social Science Research Council. <https://ia902702.us.archive.org/>
- Ansell, D., Crispo, J. A., Simard, B., & Bjerre, L. M. (2017). Interventions to reduce wait times for primary care appointments: A systematic review. *BMC Health Services Research*, 17, 295–304. <https://doi.org/10.1186/s12913-017-2219-y>
- Austin, J. B. (2012) *A phenomenological investigation of physician job satisfaction in rural integrated primary care* (Dissertation). Antioch University New England. <https://www.semanticscholar.org/>
- Beach, M. C., Keruly, J., & Moore, R. D. (2006). Is the quality of the patient-provider relationship associated with better adherence and health outcomes for patients with HIV? *Journal of General Internal Medicine*, 21, 661–665. <https://doi.org/10.1111/j.1525-1497.2006.00399.x>
- Blount, A. (2019). *Patient-centered primary care: Getting from good to great*. Springer. <https://doi.org/10.1007/978-3-030-17645-7>
- Blount, A. (Ed.). (1998). Introduction. *Integrated primary care: The future of medical and mental health collaboration*. New York, NY: WW Norton & Co. <https://psycnet.apa.org/search>
- Blount, F. A., Schoenbaum, M., Kathol, R., Rollman, B. L., Thomas, M., O'Donohue, W. et al. (2007). The economics of behavioral health services in medical settings: A summary of the evidence. *Professional Psychology: Research and Practice*, 38, 290–297. <https://doi.org/10.1037/0735-7028.38.3.290>
- Boos, E. M., Bittner, M. J., & Kramer, M. R. (2016). A profile of patients who fail to keep appointments in a Veterans affairs primary care clinic. *WMJ*, 115, 185–190. <https://creighton.pure.elsevier.com/en/>

- Brown, E. E., Schwartz, M., Shi, C., Carter, T., Shea, J.A., Grande, D., & Chaiyachati, K. H. (2020). Understanding why urban low-income patients miss primary care appointments: Insights from qualitative interviews of west Philadelphians. *Journal of Ambulatory Care Management*, 43, 30–40. <https://doi.org/10.1097/JAC.0000000000000316>
- Cameron, S., Sadler, L. & Lawson, B. (2010). Adoption of open-access scheduling in an academic family practice. *Canadian Family Physician*, 56, 906–911. <https://www.ncbi.nlm.nih.gov/>
- Cashman, S. B., Savageau, J. A., Lemay, C. A., & Ferguson, W. (2004). Patient health status and appointment keeping in an urban community health center. *Journal of Health Care for the Poor and Underserved*, 15, 474–488. <https://doi.org/10.1353/hpu.2004.0037>
- Chaiyachati, K. H., Hubbard, R. A., Yeager, A., Mugo, B., Lopez, S., Asch, E., ... Grande, D. (2018). Association of rideshare-based transportation services and missed primary care appointments: A clinical trial. *JAMA Internal Medicine*, 35. <https://doi.org/10.1001/jamainternmed.2017.8336>
- Ciechanowski, P., Russo, J., Katon, W., Simon, G., Ludman, E., Von Korff, M., ... Lin, E. (2006). Where is the Patient? The association of psychosocial factors and missed primary care appointments in patients with diabetes. *General Hospital Psychiatry*, 28, 9–17. <https://doi.org/10.1016/j.genhosppsych.2005.07.004>
- Clouse, K. M., Williams, K. A., & Harmon, J. M. (2017). Improving the no-show rate of new patients in outpatient psychiatric practice: An advance practice nurse-initiated telephone engagement protocol quality improvement project. *Perspectives in Psychiatric Care*, 53, 127–134. <https://doi.org/10.1111/ppc.12146>
- Corti, L., & Thompson, P. (2011). Secondary analysis of archived data. In C. Seale, G. Gobo, J. F. Gubrium, & D. Silverman (Eds.), *Qualitative Research Practice* (1<sup>st</sup> edition, pp. 297–313). Sage. <https://doi.org/10.4135/9781848608191.d26>
- Dantas, J. F., Fleck, J. L., Cyrino Oliveira, F. L., & Hamacher, S. (2018). No-shows in appointment scheduling – a systematic literature review. *Health Policy*, 122, 412–421. <https://doi.org/10.1016/j.healthpol.2018.02.002>
- Defife, J. A., Conklin, C. Z., Smith, J. M., & Poole, J. (2010). Psychotherapy appointment no-shows: Rates and reasons. *Psychotherapy Theory, Research, Practice, Training*, 47, 413–417. <https://doi.org/10.1037/a0021168>
- Deyo, R. A., & Inui, T. S. (1980). Dropouts and broken appointments: A literature review and agenda for future research. *Medical Care*, 18, 1146–1157. <https://doi.org/10.1097/00005650-198011000-00006>

- DiMatteo, M. R., Lepper, H. S., & Croghan, T. W. (2000). Depression is a risk factor for noncompliance with medical treatment: Meta-analysis of the effects of anxiety and depression on patient adherence. *Archives of Internal Medicine Journal*, *160*, 2101–2197. <https://doi.org/10.1001/archinte.160.14.2101>
- DuMontier, C., Rindfleisch, K., Pruszynski, J., & Frey, J. J. (2013). A multi-method intervention to reduce no-shows in an urban residency clinic. *Family Medicine*, *45*, 634–641. <https://www.ncbi.nlm.nih.gov/pubmed/24136694>
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, *196*(4286), 129–136. <https://doi.org/10.1126/science.847460>
- Engel, G. L. (1980). The clinical application of the biopsychosocial model. *The American Journal of Psychiatry*, *13*(5), 535–544. <https://doi.org/10.1176/ajp.137.5.535>
- Fix, G. M., VanDusen Lukas, C., Bolton, R. E., Hill, J. N., Mueller, N., LaVela, S. L., & Bokhour, B. G. (2017). Patient-centered care is a way of doing things: How healthcare employees conceptualize patient-centered care. *Wiley*, *21*, 300–307. <https://doi.org/10.1111/hex.12615>
- Giachetti, R. E. (2008, December). *A simulation study of interventions to reduce appointment lead-time and patient no-show rate*. In 2008 Winter Simulation Conference (pp. 1463–1468). IEEE. <https://doi.org/10.1109/WSC.2008.4736225>
- Institute for Healthcare Improvement (2020). <http://www.ihl.org/resources/Pages/Changes/PatientCenteredCare.aspx>  
Downloaded 25 January 2020.
- Institute of Medicine (2001). *Crossing the quality chasm: A new health system for the 21st century*. National Academy Press. <https://doi.org/10.17226/10027>
- Kaplan-Lewis, E., & Percac-Lima, S. (2013). No-show to primary care appointments: Why patients do not come. *Journal of Primary Care and Community Health*, *4*, 251–255. <https://doi.org/10.1177/2150131913498513>
- Kiyimba, N., Lester, J. N., & O'Reilly, M. (2018). *Using naturally occurring data in qualitative health research: A practical guide*, (1<sup>st</sup> ed.). Springer. <https://doi.org/10.1007/978-3-319-94839-3>
- Kruse, C. S., Krowski, N., Rodriguez, B., Tran, L., Vela, J., & Brooks, M. (2017). Telehealth and patient satisfaction: A systematic review and narrative analysis. *BMJ Open*, *7*, 1–12. <https://doi.org/10.1136/bmjopen-2017-016242>
- Lacy, N. L., Paulman, A., Reuter, M. D., & Lovejoy, B. (2004). Why we don't come: Patient perceptions on no-shows. *Annals of Family Medicine*, *2*, 541–545. <https://doi.org/10.1370/afm.123>

- Lasser, K. E., Mintzer, I. L., Lambert, A., Cabral, H., & Bor, D. H. (2005). Missed appointment rates in primary care: The importance of site of care. *Journal of Health Care for the Poor and Underserved, 16*(3), 475–486. <https://doi.org/10.1353/hpu.2005.0054>
- Macharia, W. M., Leon, G., Rowe, B. H., Stephenson, B. J., Haynes, B. (1992). An overview of interventions to improve compliance with appointment keeping for medical services. *JAMA, 267*, 1813-1817. <https://doi:10.1001/jama.1992.03480130129038>
- Mackin, R. S., & Arean, P. A. (2007). Cognitive and psychiatric predictors of medical treatment adherence among older adults in primary care clinics. *International Journal of Geriatric Psychiatry, 22*, 55–60. <https://doi.org/10.1002/gps.1653>
- McQueenie, R., Ellis, D. A., McConnachie, A., Wilson, P., & Williamson, A. E., (2019). Morbidity, mortality, and missed appointments in healthcare: A national retrospective data linkage study. *BMC Medicine, 17*, 1–9. <https://doi.org/10.1186/s12916-018-1234-0>
- Miller, A. J., Chae, E., Peterson, E., & Ko, A. B. (2015). Predictors of repeated “no-showing” to clinic appointments. *American Journal of Otolaryngology, 36*, 411–414. <https://doi.org/10.1016/j.amjoto.2015.01.017>
- Miller-Matero, L. R., Clark, K. B., Brescacin, C., Dubaybo, H., & Willens, D. E. (2016). Depression and literacy are important factors for missed appointments. *Psychology, Health, & Medicine, 21*, 686–695. <https://doi.org/10.1080/13548506.2015.1120329>
- Miller-Matero, L. R., Coleman, J. P., Aragon, R., & Yanez, J. (2018). Identifying predictors of emergency room utilization in primary care. *Journal of General Internal Medicine, 33*, 1629–1630. <https://doi.org/10.1007/s11606-018-4529-0>
- Murray, M., & Tantau, C. (2000). Same-day appointments: Exploding the access paradigm. *Family Practice Management, 7*, 45–50. <https://www.aafp.org/journals/fpm.html>
- Nguyen, D. L., & DeJesus, R. S. (2010). Increased frequency of no-shows in residents’ primary care clinic is associated with more visits to the emergency department. *Journal of Primary Care & Community Health, 1*(1), 8–11. <https://doi.org/10.1177/2150131909359930>
- Parikh, A., Gupta, K., Wilson, A. C., Fields, K., Cosgrove, N. M., & Kostis, J. B. (2010). The effectiveness of outpatient appointment reminder systems in reducing no-show rates. *The American Journal of Medicine, 123*, 542–548. <https://doi.org/10.1016/j.amjmed.2009.11.022>
- Percac-Lima, S., Singer, D. E., Cronin, P. R., Chang, Y. & Zai, A. H. (2016). Can text messages improve attendance to primary care appointments in underserved populations? *Journal of Health Care for the Poor and Underserved, 27*, 1709–1725. <https://doi.org/10.1353/hpu.2016.0157>

- Roberts, K., Callanan, I. & Tubridy, N. (2011). Failure to attend out-patient clinics: Is it in our DNA? *International Journal of Health Care Quality Assurance*, 24, 406–412.  
<https://doi.org/10.1108/09526861111139214>
- Rothman, A. A., & Wagner, E. H. (2003). Chronic illness management: What is the role of primary care? *Annals of Internal Medicine*, 138, 256–261.  
<https://doi.org/10.7326/0003-4819-138-3-200302040-00034>
- Shimotsu, S., Roehrl, A., McCarty, M., Vickery, K., Guzman-Corrales, L., Linzer, M., & Garrett, N. (2016). Increased likelihood of missed appointments (“no shows”) for racial/ethnic minorities in a safety net health system. *Journal of Primary Care and Community Health*, 7, 38–40. <https://doi.org/10.1177/2150131915599980>
- Smith, J. A. (2017). Interpretative phenomenological analysis: Getting at lived experience. *The Journal of Positive Psychology*, 12, 303–304.  
<https://doi.org/10.1080/17439760.2016.1262622>
- Smith, J. A., & Osborn, M. (2015). Interpretative phenomenological analysis. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to methods* (3rd ed., pp. 53–80). London: Sage. <https://us.sagepub.com/en-us/nam/home>
- Sparr, L. F., Moffitt, M. C., & Ward, M. F. (1993). Missed psychiatric appointments: Who returns and who stays away. *The American Journal of Psychiatry*, 150, 801–805.  
<https://doi.org/10.1176/ajp.150.5.801>
- Todd, Z., Nerlich, B., McKeown, S., & Clarke, D. D. (2004). *Mixing methods in psychology: The integration of qualitative and quantitative methods in theory and practice* (1<sup>st</sup> ed.). Psychology Press: Taylor and Francis Group. <https://doi.org/10.1080/08873260701593441>
- Triemstra, J. D., & Lowery, L. (2018). Prevalence, predictors, and the financial impact of missed appointments in an academic adolescent clinic. *Cureus*, 10, 3613.  
<https://doi.org/10.7759/cureus.3613>
- Van der Meer, G., & Looock, J. W., (2008). Why patients miss follow-up appointments: A prospective control-matched study. *East African Journal of Public Health*, 5, 154–156.  
<https://doi.org/10.4314/eajph.v5i3.38994>
- van Dieren, Q., Rijckmans, M. J. N., Mathijssen, J. J. P., Lobbestael, J., & Arntz, A. R. (2013). Reducing no-show behavior at a community mental health center. *Journal of Community Psychology*, 41, 844–850. <https://doi.org/10.1002/jcop.21577>
- Wade, D. T., & Halligan, P. W. (2017). The biopsychosocial model of illness: A model whose time has come. *Clinical Rehabilitation*, 31, 995–1004.  
<https://doi.org/10.1177/0269215517709890>

Weingarten, N., Meyer, D. L., & Schneid, J. A. (1997). Failed appointments in residency practices: Who misses them and what providers are most affected? *Journal of the American Board of Family Practice*, *10*, 407–411. <https://www.ncbi.nlm.nih.gov/>

World Health Organization (2018). *Depression*. Retrieved May 31, 2018, from <http://www.who.int/news-room/fact-sheets/detail/depression>

World Health Organization. (2020, April). *Health and sustainable development: Telehealth*. <https://www.who.int/sustainable-development/health-sector/strategies/telehealth/en/>

**Table 1***5 Superordinate Themes, Theme Clusters, Number of Participants Per Theme, and Exemplar Quotes*

Superordinate Theme	Theme Cluster	N	Examples
1. Unexpected Logistical Challenge (N = 23)	Transportation problem (including not feeling well enough to travel)	7	“My car was in the shop and I didn’t have a ride.” -Transportation problem; Participant #33
	Childcare	4	“I had to watch my kids.” -Childcare; Participant #26
	Insurance change or problem	3	“I lost my job and lost my insurance and couldn’t pay to see the doctor without insurance. I would have liked to come, but it was too expensive.” -Insurance change or problem; Participant #38
	Weather	5	“Oh yeah, I remember that day. It was a snow day. The schools were out and we got about six inches of snow. I didn’t call; I figured they knew I wasn’t coming. I don’t drive in bad weather.” -Weather; Participant #7
	Overslept	2	“My alarm didn’t go off and I overslept and missed it. Can I reschedule?” -Overslept; Participant #21
	Incarcerated	1	“I was in jail.” -Incarcerated; Participant #35
	Gave Birth	1	“Wait they said I missed my appointment? I was with my doctor giving birth in a different part of the hospital. That is ridiculous!” -Gave Birth; Participant #52
2. Forgetfulness (N = 19)	Forgot	15	“Yeah, I just totally forgot about it. I wish I had known; I would have been there.” – Forgot; Participant #12
	No reminder	4	“I usually get an appointment text reminder, but I didn’t get one, so I thought the appointment was canceled.” – No reminder; Participant #40

**Table 1** (continued)

Superordinate Theme	Theme Cluster	N	Examples
3. Known Scheduling Conflict (N = 12)	Work	8	“I was at work. I tried to schedule at a different time but [my PCP] was only available during work. I wanted to leave early to get to my appointment, but I couldn’t.” – Work; Participant #14
	Class	2	“It was scheduled at the same time as class and I couldn’t miss it.” – Class; Participant #55
	Time of appointment	1	“I don’t like appointments during rush hour, it’s a madhouse. It takes way too long to get there and there’s never any parking.” -Time of appointment; Participant #43
	Appointment scheduled with new doctor	1	“I always get scheduled with a new doctor. I just want to see [my PCP] so I don’t have to tell the whole story over again.” -Appt scheduled with new doctor; Participant #57
4. Appointment no longer needed at that time (N =9)	Tried to cancel; administrative error	6	“I canceled my appointment. I called and talked to [nurse] and told them I couldn’t make it because I couldn’t get off of work.” - Administrative error; Participant #17
	Tried to cancel; On hold for too long	1	“I called to cancel and was put on hold for like 20 minutes and I hung up. I don’t have time to be on hold for 20 minutes, it’s ridiculous. If I could call and talk to someone fast I could’ve told them. They really need to work on not putting people on hold for so long.” -On hold for too long; Participant #46
	Referred to specialist	2	“I wanted to go see a specialist and didn’t want to come back in to see [my PCP] but they made me a follow up appointment [for my PCP] at the front desk anyways.” -Referred to specialist; Participant #27



**Table 1** (continued)

Superordinate Theme	Theme Cluster	N	Examples
5. Problem with Staff (N = 1)	Felt dismissed by staff	1	“I had an appointment with [name of staff] and I really didn’t feel like they were listening to me. The appointment felt rushed and I didn’t feel like they were taking me seriously. It felt like [the staff] was in the room for five minutes. Five minutes! That isn’t enough time to figure out what’s going on. I won’t see them again.” -Felt dismissed by staff; participant #34

**Table 2***2 Superordinate Themes, Theme Clusters, Number of Participants Per Theme, and Exemplar Quotes*

Superordinate Theme	Theme Cluster	N	Examples
1. No (N = 41)	No; forgot	39	“No, I didn’t try to cancel. I forgot.” – No, forgot; Participant #12
	No; unable	2	“No, I couldn’t! I was in labor...canceling my appointment wasn’t really on my mind.” – No, unable; Participant #52
2. Yes (N = 21)	Yes; canceled and rescheduled	11	“Yes, I did cancel and rescheduled the appointment. I spoke to [nurse].” -Yes, canceled and rescheduled; Participant 48
	Yes; left voicemail	2	“Yeah, I called and left a message because the lines were busy.” -Yes, left voicemail; Participant #3
	Yes; attempted to cancel	8	“I mean, like I just said, I was on hold for 20 minutes. I tried to cancel, but I’m not going to wait that long just to let them know I can’t make it.” -Yes, attempted to cancel; Participant #46

**Table 3***3 Superordinate Themes, Theme Clusters, Number of Participants Per Theme, and Exemplar Quotes*

Superordinate Theme	Theme Cluster	N	Examples
1. No (N = 35)	No	35	“No, nothing. It’s on me to make it there.” – No; Participant #21
2. Reminders (N = 17)	Electronic reminders (email, text, or phone application)	11	“My dentist has text reminders for appointments. I think it would be cool if they could do something like that, you know? Sometimes I just forget that I made an appointment if it’s really far off.” -Electronic reminders; Participant #12
	Phone call reminders	4	“I wish an actual person would call to remind me. None of that automated crap. It’s nice to get a real person on the other end. Like this. You’re a real person, I feel like that doesn’t happen as much anymore.” -Phone call reminders; Patient #59
	Non-specific reminder request	2	“Reminders would help.” -Non-specific reminder request; Participant #21

**Table 3** (Continued)

Superordinate Theme	Theme Cluster	N	Examples
3. Clinic improvements (N = 10)	Shorter waiting times	1	“Depending on when the appointment is scheduled, I don’t always have time to wait. I sometimes have waited two hours for my appointment. I just don’t always have that kind of time. And it’s rude to patients to keep us waiting that long. If I didn’t have to wait I’d be more likely to come. Probably other people too.” -Shorter waiting times; Participant #43
	Better communication between front desk and staff	2	“It’s really frustrating when [my PCP] says to have a follow up appointment in a month and the front desk tries to schedule me an appointment two months later. I have to almost argue with them for the appointment time that [my PCP] wants me to have.” –Better communication between front desk and staff; Participant #48
	Increased clinic hours	3	“I wish [my PCP] had more hours after work. I know they have other people there, but he is never there at that time. I want to see him and not have to meet with someone different.” Increased clinic hours; Participant #14
	More staff on phones	2	“Well if they had more staff on phones then I could call and reschedule for a different time that same day.” – More staff on phones; Participant #3
	Accept more insurance types	1	“They could accept more insurance!” Accept more insurance types; Participant #38
	Provide transportation	1	“If they had an Uber service or something...that would be cool.” - Provide transportation; Participant #12

**Table 4***3 Superordinate Themes, Theme Clusters, Number of Participants Per Theme, and Exemplar Quotes*

Superordinate Theme	Theme Cluster	N	Examples
1. No (N = 50)	No or Nothing	50	“No, nothing. [PCP resident name] is great, he cares a lot. I started seeing him and my blood sugar dropped. I wouldn’t switch him for nothing.” -No; Patient #59
2. Improve workflow (N = 10)	Appointment reminders	3	“Not really anything, I mean other than the appointment reminders, but I already said that. That’s really it. They do a good job.” - Appointment reminders; Participant #21
	Shorter hold times (on phone)	4	“The call center. The call center is so awful I have driven to the office to make an appointment instead of waiting on the phone” - Shorter hold times; Participant #38
	Shorter wait times (in office)	2	“Like I said, I just don’t have time to wait two hours for an appointment. They really need to work on that.” Shorter wait times; Participant #43
	Staff review patient records prior to appointments	1	“Yes, actually. I met with someone new for an appointment and it was clear they didn’t read through my chart before the appointment. They were asking questions that they could have found answers to. It felt like wasted time.” Staff review records prior to appointments; Participant #22
3. Reduce barriers (N = 2)	Take more insurance types	1	“I mean, if they took more insurance. I really like it there.” Accept more insurance types; Participant #38
	Parking is too expensive	1	“Free parking. For chronic patients it gets too expensive to pay for parking for every single visit.” Parking is too expensive; Participant #41