

# Exploring Primary Care Non-Attendance: A Study of Low-Income Patients

Journal of Primary Care & Community Health  
Volume 13: 1–11  
© The Author(s) 2022  
Article reuse guidelines:  
sagepub.com/journals-permissions  
DOI: 10.1177/21501319221082352  
journals.sagepub.com/home/jpc



Kyle A. Chapman<sup>1</sup> , Stephanie S. Machado<sup>1,2</sup> ,  
Katie van der Merwe<sup>3</sup>, Ashley Bryson<sup>4,5</sup>, and Dwight Smith<sup>5</sup>

## Abstract

**Introduction:** While evidence has been established on the impact of medical appointment non-attendance on the healthcare system and patient health, previous research has not focused on how poverty and rurality may influence patient experiences with non-attendance. This paper explores patient perceptions of non-attendance among those experiencing poverty in a rural U.S. county to better inform providers to the context in which their patients make attendance-related decisions. **Methods:** Using a grounded theory approach, we conducted semi-structured interviews with 32 U.S. low-income adults in the rural Western U.S. who recurrently missed primary care appointments. We also used a questionnaire to assess individual characteristics related to health, resiliency, personal mastery, medical mistrust, life chaos, and adverse childhood experiences. **Results:** Participants identified 3 barriers to attending appointments: appointment disinterest, competing demands, and insufficient systems. Appointment disinterest stemmed from physical and mental health issues, misalignment between needs and treatment, and comfort with the provider. Competing demands included family responsibilities, employment, and relationships. Finally, participants reported that current scheduling and transportation systems were helpful but insufficient. To provide further context, participants also reported low overall health, moderate levels of medical mistrust, life chaos, and mastery, moderate to low resilience, and very a high number of adverse childhood experiences. **Conclusions:** Results point to the need for modified structures that allow low-income patients more control over their personal health and highlight opportunities for clinics to address patients' lack of interest and fear in the medical encounter.

## Keywords

primary care, missed appointments, no shows, poverty, trauma, non-attendance

Dates received: 16 December 2021; revised: 14 January 2022; accepted: 5 February 2022.

## Introduction

Medical non-attendance or “no shows” occur when individuals fail to attend their medical appointments without prior rescheduling or cancellation. In the United States, no show rates range from 5% to 55% in primary care settings,<sup>1-3</sup> and unfilled appointments limit the ability of clinics to provide efficient care.<sup>2</sup> Further, patients who have high no show rates are more likely to utilize emergency departments and in-patient care.<sup>4,5</sup> No shows are commonly framed as healthcare systems issues, yet missing clinical appointments has adverse effects on patient health. Patients with high no show rates are less likely to complete preventive screenings<sup>5</sup> and more likely to have unmanaged chronic disease<sup>5-7</sup> compared to patients with low no show rates. Patients who frequently miss medical appointments also

have worse continuity of care<sup>8</sup> which can result in lower patient satisfaction.<sup>9,10</sup>

While a strong body of evidence has been established on the impact of no shows on the healthcare system and patient health, less attention has been devoted to the patient's experience with missing medical appointments. Quantitative

<sup>1</sup>Oregon Institute of Technology, Klamath Falls, OR, USA

<sup>2</sup>California State University, Chico, Chico, CA, USA

<sup>3</sup>Middlebury College, Middlebury, VT, USA

<sup>4</sup>Klamath Health Partnership, Klamath Falls, OR, USA

<sup>5</sup>Oregon Health & Science University, Klamath Falls, OR, USA

## Corresponding Author:

Kyle A. Chapman, Oregon Institute of Technology, 3201 Campus Drive, 109 Semon Hall, Klamath Falls, OR 97601, USA.

Email: kyle.chapman@oit.edu



research has shown that issues such as miscommunication<sup>11</sup> or not being notified about the appointment,<sup>12</sup> forgetfulness, work, and transportation are barriers to primary care appointment attendance.<sup>11,12</sup> Beyond reasons for missing appointments, research has also found that being of younger age, lack of insurance, scheduling a check-up visit, and 2 or more previous no show visits increase the likelihood of missing appointments.<sup>13</sup> Further, only 1 purely qualitative study in the U.S has explored the contextual factors that influence primary care appointment attendance behavior. Lacy et al<sup>14</sup> found that not understanding the scheduling system, emotions related to the appointment, and perceived disrespect from staff are key factors in non-attendance. Likewise, 1 qualitative study from the U.K. identified issues such as competing priorities for patients, patient/staff relationships, and appointment booking systems.<sup>15</sup>

Previous research has not focused specifically on the role of social and economic factors, particularly poverty and access to healthcare in a rural environment. For example, Martin et al<sup>15</sup> do not explicitly examine the experience of rural patients. Further, while some studies on the patient perspective described their clinics as predominately serving low-income patients,<sup>11,14</sup> they lack detail on the context in which patients live and make decisions. As low-income populations have a higher risk of missing appointments,<sup>16</sup> and experience greater disparities in health outcomes,<sup>17</sup> it is of particular importance to understand the role that poverty and related contextual factors may play in no show behavior in these communities.

Living in a poverty context (ie, financial instability and limited wealth) results in persisting hardships and events which make one's ability to meet their personal needs less attainable.<sup>18</sup> Poverty has various adverse effects including a decreased quality of physical and mental health.<sup>19</sup> Given the influence of poverty on instability and health outcomes, further exploration of medical appointment behavior among those experiencing poverty is warranted. The landscape of primary care in the US and in the State of Oregon is complex and variable. Rural populations have more limited access to primary care physicians than those in urban areas and tend to be older, have more health conditions, and experience higher rates of poverty.<sup>20</sup> Research suggests that Medicaid (state sponsored health insurance for low-income people) expansion is associated with greater access to care, greater use of preventive services, and improved chronic disease management.<sup>21</sup> Therefore, it is imperative to understand the additional barriers to adequately utilizing available care, particularly among low-income, rural populations. This study aims to provide an in-depth and contextually grounded understanding of primary care non-attendance among low-income patients in a rural environment. This study is needed to give providers a better understanding of the conditions outside of the exam room that influence attendance. The study employs qualitative interviews to

explore patient experiences with non-attendance and describes individual and community level factors that shape these experiences.

## Materials and Methods

We employed a grounded theory approach<sup>22-24</sup> centered on a process of purposeful sampling, systematic inductive coding, category and theme identification, and evaluation of data saturation. The study uses both qualitative interviews and a psychosocial questionnaire with low-income individuals living in a rural area. Individuals were classified as low-income if they were enrolled in Medicaid, state subsidized health care for low-income individuals in the state of Oregon, otherwise known as the Oregon Health Plan. Individuals qualify for the Oregon Health Plan based on a maximum income of less than approximately \$1400 per month for an individual and less than \$2800 per month per month for a family of 4 during 2017 (the year study participants were recruited).<sup>25</sup> Approximately 25% of Oregonians are enrolled in the Oregon Health Plan.<sup>26</sup> We conducted semi-structured interviews with Medicaid members in a rural Oregon county (USA) to understand their experiences missing primary care appointments. Purposive sampling was employed to recruit participants from specific groups (ie, men and non-White individuals). We recruited adults enrolled in the local Coordinated Care Organization's Medicaid plan. Participants were patients at a variety of local primary care clinics, including a Federally Qualified Health Center, a family medicine residency clinic, a hospital-affiliated primary care clinic, and 2 private primary care clinics. To be included in the study, participants must have been between the ages of 18 and 64, been enrolled in the Oregon Health Plan, and had missed 4 or more appointments in the previous year. Health status and comorbidities were not considered for inclusion or exclusion in the study.

The majority of interviews were conducted in-person in a private room at a community work space (n=26) while a few were conducted over the phone (n=6). Twenty-nine of the 32 interviews were recorded and transcribed verbatim. Three interviews were not recorded due to participant refusal; detailed notes were taken during these interviews. Qualitative interviews lasted an average of 35 min ranging from approximately 20 to 95 min. Additional information related to psychosocial characteristics (ie, ACES, resiliency, personal mastery, and life chaos) and health and healthcare (medical mistrust and self-rated health) was gathered through a questionnaire.

Participant recruitment concluded once saturation of data was reached.<sup>27</sup> Data saturation occurs in the coding process where existing information and codes are prevalent and new codes do not emerge. Reaching data saturation did require additional criterion based purposeful sampling of participants based on select demographic characteristics

including males, people of color, and individuals under the age of 30. The research team obtained informed consent from each participant, and interviewees received a \$50 gift card as incentives for participation. This study was conducted in collaboration with a local Coordinated Care Organization and was approved by the Institutional Review Board at Oregon Institute of Technology.

### Interview Protocol

The semi-structured interview protocol covered topics such as experiences with the medical system, routines and procedures related to scheduling and attending appointments, barriers and facilitators to attending medical appointments, and recommendations for improving appointment attendance rates. Participants were asked questions related to how they chose their doctor or clinic and if they were satisfied with their health care. They were also asked questions such as, “Is it ever difficult to make the appointments?” and “Can you tell me about a time you didn’t make it to an appointment?” Participants were asked about events leading up to the appointment and their actions after having missed appointments. They were asked about the role of work, family, and everyday life in attending medical appointments. Finally, they were asked about how the medical office could help ensure that patients were able to attend medical appointments.

### Questionnaire Measures

To provide greater context to the experiences of participants, the sample was asked to complete a questionnaire that included range of psychosocial and health metrics. These measures were included to provide a psychosocial profile in addition to demographic characteristics of the participants and to explore the extent to which factors such as adverse childhood experiences, medical mistrust, and life chaos might be present among those who recurrently miss appointments. Further, these measures contextualize and reinforce the interview findings. Measures included self-rated health,<sup>28,29</sup> the Brief Resilience Scale,<sup>30</sup> the Pearlin Mastery Scale, measuring the extent to which an individual regards their life chances as being under their personal control,<sup>31</sup> the Medical Mistrust Index,<sup>32</sup> the Confusion, Hubbub, and Order Scale (CHAOS), assessing the organization and routine of daily life,<sup>33,34</sup> and the Adverse Childhood Experience Scores.<sup>35</sup>

### Qualitative Data Analysis

The analysis largely followed established methods of the constructionist grounded theory<sup>22-24</sup> in the sense that data reduction was achieved through an inductive approach. Interview data was analyzed in Provalis QDA Lite software.

**Table 1.** Summary of Demographic Characteristics, n=32.

	Frequency
Gender	
Female	24
Male	8
Race/Ethnicity	
White only	24
Latinx	4
African American	3
American Indian/Native Alaskan	1
	Average (range)
Age	41 (19-64)
# of missed appointments (last 12 months)	6.9 (4-11)

Analysis consisted of 3 stages. The first stage involved open coding to summarize the content. The second stage consisted of axial coding and categorization, where major themes were established and patterns within these themes were identified. Finally, selective coding occurred in which supporting evidence and related categories were matched with the primary themes. Coding and analysis was carried out by 2 experienced researchers. The researchers brought differing perspectives from social science and public health which reduces the likelihood for analytical bias.<sup>36</sup> Further, 2 researchers coded the transcripts and came together to discuss codes and identify relevant themes. Differences in interpretation and code and category assignment were resolved through conversation. Elements of more recently developed qualitative techniques such as flexible coding as outlined by Deterding and Waters<sup>37</sup> were employed as well. Flexible coding refers to the coding of attributes and creating of indexes by which comparison of broad topics, rather than specific codes, can be used to more directly address a specific research question. The final themes were developed by examining both the inductively coded categories and the contextual attributes identified in both the interviews by participants and the responses to the questionnaire instrument.

## Results

### Individual Level Demographics

Table 1 presents sample demographic information. A total of 32 people, 24 women and 8 men, participated in interviews. Twenty-four participants identified as White, 4 as Latinx, 3 as African American, and 1 as American Indian or Native Alaskan. Average age of the participants was 41 (range 19-64). The number of missed appointments in the past 12 months ranged from 4 to 11.

Table 2 presents a summary of the questionnaire measures. These quantitative data provide the context in which the participants experience medical appointments, shown

**Table 2.** Summary of Individual Contextual Factors, n=32.

	Frequency	% or mean	Defined thresholds
Self-rated health			
Excellent	1	3.1%	—
Very good	5	15.6%	—
Good	12	37.5%	—
Fair	10	31.3%	—
Poor	4	12.5%	—
Brief resiliency scale	—	3.01	Low resiliency $\leq 3.0$ —High resiliency $\geq 4.3$
Personal mastery scale	—	2.5	Low mastery $> 1.5$ , moderate mastery 1.5-3.5, high mastery $> 3.5$
Medical mistrust index	—	2.6	Low mistrust $< 1.5$ , moderate mistrust 1.5-3.0, high mistrust $> 3.0$
Life chaos score	—	2.4	Low chaos $< 2$ , moderate chaos 2-3, high chaos $> 3$
Adverse childhood experiences score			
0	0	0%	High—more than 4
1-2	6	18.8%	
3-4	6	18.8%	
5-6	3	9.7%	
7-8	11	34.4%	
9-10	5	15.6%	

through the qualitative themes. Overall, self-rated health was low. The average resiliency score just above the “low resiliency” threshold and far less than the “high resiliency” threshold. Participants had low to moderate feelings of control over their lives and moderate levels of medical mistrust as well as life chaos. Finally, adverse childhood experiences were extremely prevalent with three-quarters of the group scoring 4 or more ACES and over half scoring 7 or more.

### Qualitative Themes

**Theme 1: (Dis)Interest in the medical encounter.** Participants referenced a range of issues related to interest, or lack thereof, in the medical encounter. These issues included: medical barriers, apprehension due to perceived judgment, and patient/provider relationships including alignment of treatment plans between patient and providers, continuity of care, and positive interactions. Table 3 presents direct quotes related to Theme 1.

**Medical barriers: Physical and mental.** Many participants described their own health as the issue that discouraged attendance. Specifically, participants highlighted how mental health made it difficult to attend a medical appointment. The process of attending a medical appointment was described as stress inducing and for those with existing anxiety issues; the encounter only worsened their mental health. Ultimately, missing, canceling, or delaying the appointment was considered the most logical path forward. Physical health seemed to reduce interest in attending appointments in similar ways as mental health. However,

physical health was most often discussed as a competing demand. This observation is unsurprising given that only 6 participants reported very good or excellent health.

**Perceived judgment.** Individuals also expressed some fears of confrontation related to lifestyle or health issues that they did not want to discuss with a provider. Individuals described a disinterest in being told to change lifestyle habits or having an illness-related appointment be dominated by conversations of weight, diet, and substance use. Similar stories were expressed related to domestic abuse or sexual behaviors. Participants noted that this fear of confrontation adds to the anxiety of the appointment and results in either less motivation to attend an appointment or non-attendance. While not explicitly defined as childhood experiences, issues such as those mentioned above may be indicative of a trauma history—the participants reported an average of nearly 6 ACES. Additionally, these experiences seem to undermine the trust between patient and provider and discourage future plans to make and attend appointments.

**Patient and provider relationship: Treatment alignment, continuity, positive interactions.** While few individuals explicitly identified the relationship between themselves and their provider as a reason for non-attendance, many individuals did discuss how comfort level with a provider influenced their desire to attend appointments. Most participants described, at length, issues of perceived misdiagnosis or what they viewed as careless treatment plans that undermine their trust in providers. One woman described how she would cancel

**Table 3.** Theme 1: (Dis)Interest in the Medical Encounter.

Medical barriers	<p>"I mean I have a lot of anxiety, and so I don't go to the doctor as much as I should."</p> <p>"Yeah. I just wouldn't go to anything. I was just too overwhelmed with everything."</p>
Perceived judgment	<p>"I was there for the flu, but [the provider] kept asking me about drinking and if I smoke and my weight."</p> <p>"People don't like to see the doctor. Sometimes you just don't want to hear someone tell you that you need to do things differently or that you need to have a bunch of tests run. Sometime people are just like, not today"</p> <p>"So, I can't go to my appointment because I have a black eye and I don't want to talk to the. . . doctor about it."</p>
Patient/provider relationships	<p>"Give people the same doctors. I would be inclined to go if I knew that I was seeing the same person."</p> <p>"I think it would be absolutely 90 to 100 percent better if you establish that connection with that one doctor, you don't have to run around to everyone else trying to tell them what's going on multiple times."</p> <p>"Yeah, they compare notes well. That's true. It's irritating when you go to a different doctor and they have no idea what's going on."</p> <p>"I know a lot of doctors are overworked and they work non-stop so that can be tiring for them. . . then you feel like you're being treated poorly because they want to go home."</p> <p>"I don't think I would be as open [with other providers] . . . I wouldn't get my medical needs met."</p> <p>"She totally went out on a limb for me and got [training] for me. She believed in me. . . Not one doctor in this town had a Suboxone license and she did it."</p>

appointments or not show up for appointments because she did not want to hear that her physical health problem was instead mental or behavioral. Others described scenarios in which they had received a misdiagnosis that led to unnecessary surgeries, medications, and interventions. Some even referred to using the emergency room as a last resort for treatment because the clinic was unable to see them. The observation is corroborated by the moderate levels of medical mistrust reported in the questionnaire.

Many participants appeared to prefer provider continuity. Participants expressed that they were sometimes unable to see the same provider consistently, which may have undermined their interest in the appointment. While individuals did not state continuity of care as a direct cause of missing an appointment, many reported this as a problem with which they were concerned. The importance of continuity translated to the perception of quality and interpersonal connection. Several participants described frustration related to seeing new doctors. One individual described both the benefits and drawbacks of attending a clinic that utilizes a "team" model in which if their assigned physician is unavailable, they are able to see a clinician from the same "team" of providers thus providing more continuity. This frustration led some to request a change in doctor or to not make appointments until they could see their assigned provider.

Similarly, participants noted that doctors seemed rushed and overworked and while sympathetic they express concerns of quality. Similarly, others said they were reluctant to attend appointments because they knew their problems would take too long to discuss and that the providers simply did not have the time to discuss all of the issues that they needed to address. The issues of continuity of care and quality of care seem to compound existing issues such as trust, anxiety, and disinterest in attending.

While disinterest in attending appointments may have been compounded by stress-inducing characteristics of the encounter, many participants suggested case management and positive relationships with providers are key to fostering interest in attendance. Participants highlighted that trust, respect, and positive experiences made it less likely they would miss appointments. Some described the role of the trusting relationship as a reason to attend appointments, engage in healthy behaviors, and be open enough with their providers to get the treatment they need. Others mentioned a desire to attend appointments and follow their provider's guidance because they do not want to disappoint their doctors. In fact, multiple participants suggested that if they did not have positive relationship, they would not go to the appointments and would forego seeing a provider in the first place. Participants described the connection to providers and the "above and beyond" mentality of some providers. This emphasizes the importance of the patient-provider relationship. From the participant's perspective, this relationship seems to be paramount to their interest or disinterest in attending the appointment.

Overall, this group of patients described the role of interest in the medical appointment as key in attendance. Participants highlighted issues of anxiety, trust, and confidence. The experience of poverty and instability builds anxiety and undermines trust and confidence. Given these individuals have experienced numerous adverse experiences, the need for stability in the medical encounter appears to be important for building interest or disinterest in attending appointments. In fact, when those relationships are built on trust and providers are accessible, the patients seem to have much more interest in the medical encounter. Even so, building and maintaining interest in the appointment is just a portion of the factors that influence attendance. Living in poverty further complicates patients'



**Table 4.** Theme 2: Competing Demands.

Childcare and employment	<p>“[Referring to children] I put myself on the backburner sometimes because it’s what you gotta do, you know.”</p> <p>“She [child] was screaming, biting, type of thing. And I just. . .came and went and when I looked at my calendar later that afternoon I realized I had missed it because I was in the moment.”</p> <p>“But I still end up working every single day. Like every day of the week. So, I don’t have a day off where I can just go. . .oh can we make it for Thursday because that’s going to be my day off? I don’t have that option so it’s kind of like a hit and miss with appointments.”</p> <p>“Well I try not to [miss], but I have missed because I couldn’t get off work. No could cover and if left I wouldn’t have gotten overtime which I need.”</p>
Relationships	<p>“There’s a lot of people who live in poverty who don’t have family or reliable transportation who can’t afford the two dollars they charge you to take one way on the bus.”</p> <p>“Well, I guess that I lost my job and then I lost my truck cause I was making payments on it and then it got repossessed so my sister or her boyfriend would take me to my appointments and there has been a couple days where they were both working and I was stuck with no car.”</p>

ability to overcome the struggles of everyday life even if patients are encouraged to attend due to a positive relationship with their provider.

**Theme 2: Competing demands.** The second theme concerned the host of competing demands that individuals had to manage daily. Attending medical appointments were often characterized as important, but missing the appointment was considered a necessary sacrifice or unfortunate reality. The vast majority of participants spoke about conflicting tasks that took priority over their appointments. Some of these issues were related to children and childcare, employment, and relationships. Table 4 presents direct quotes related to Theme 2.

**Childcare and employment.** Several participants highlighted parent responsibilities as a barrier. One participant described a time in which she was prepared for her appointment until her child with autism experienced an emotional episode preventing her from making the appointment.

Alternatively, many others identified employment as impeding attendance of appointments. Many of the individuals expressed that their employment schedule was not flexible or that they worked in shifts, clinic hours conflicted with work schedules, and hourly wages made attendance a financial burden. When asked about work scheduled 1 single mother stated that she works 2 jobs where one is supposed have a set schedule and the other is more unpredictable. Similarly, individuals expressed a strain between missing appointments and missing out on much needed wages. In these examples, it is clear that the context of poverty presents individuals with an array of obstacles to overcome. Those without employment obviously have various competing demands and barriers, but those who are employed, the working poor, appear to have a different set of obstacles.

Participants discussed the many steps they must take in order to get to their appointments. One woman described the process of getting her child a check-up involved an undetermined window of time that required her to hire a

babysitter for her other children. She was unsure if she needed a babysitter for just an hour or if the appointment, that includes drive time, waiting, exams, tests, driving back home, would take 2 or 3 hrs. She said the process was difficult and discouraged her from attending her own appointments because she had no idea of how long the process would take on a given day, and that she had experienced appointments of very different lengths of time. For some, uncertainty in the process led participants to seek services from the emergency department. These issues were compounded by uncertainty in transportation and employment constraints in addition to various problems related to disinterest in the appointments.

**Relationships.** Many participants emphasized that their reliance on others for transportation rendered appointment attendance out of their control. Sometimes others were not able or willing to transport them to appointments and the participants were left with few options. One participant discussed his temporary reliance on his sister for transportation and issues with attending appointments due to the instability of her work schedule. Another participant explained that she had made prior arrangements to have others take her to her appointment but the individuals were not available when the time came. The issues of family disorder, relationships, and transportation relate directly to the elevated levels of life chaos as reported in the questionnaire.

Generally, participants referenced a range of competing demands and responsibilities that were experienced by both themselves and those with whom they depend on for support.

These findings highlight the experience of role strain. The participants clearly outlined the diminished capacity to overcome a host of barriers related to attending medical appointments many of which are directly tied to economic disadvantages and family responsibilities. The disadvantages experienced by this group resulted in little control over many areas of the lives including their health. They expressed a consistent need to sacrifice attendance in favor

**Table 5.** Theme 3: System Insufficiency.

Transportation	<p>“If you take the bus, it can be hard cause if you miss it then you have to walk and that takes a while.”</p> <p>“I don’t want to ride the bus and so I would miss a lot of my appointments because nobody told me that there was medical transport”</p> <p>“[Referring to reminders for appointment the day of] That’s really helpful [sarcasm] cause I can’t call medical transport and get a same day ride.”</p>
Reminder systems	<p>“So [the reminder system] is very convenient in fact because I get down the line six months, I don’t think about a doctor’s appointment.”</p> <p>“Or, like I have an appointment on Monday so, rather than calling say on Sunday they called me yesterday [Friday] to tell me I had a doctor’s appointment.”</p> <p>“There have been times when I’ve missed appointments and I never got a reminder until it was like an hour passed my appointment.”</p>
Patient recommendations	<p>“Now at [clinic] there are a couple days a week where they’re open during the evenings, so they are open until 8pm. . .you don’t have to worry about missing work.”</p> <p>“It’s easier for people to sit at home in their pajamas and in their comfort zone then to be put out there [in a clinic] and dealing with the stress of everybody around them like talking with people for Amazon on face chat and it makes it easier to communicate.”</p>

responsibilities deemed more important and given their limited resources were left with very few options.

**Theme 3: System insufficiency.** The final theme relates to the insufficiency of systems designed to facilitate appointment attendance. This theme includes transportation, reminder systems, and patient recommendations for system improvement. While participants acknowledged the efforts to improve appointment access through transport services and reminder systems, they stressed that these services did not fully resolve transportation barriers or issues of forgetfulness. Further, some highlighted the interest in alternative appointment times or formats. Table 5 presents direct quotes related to Theme 3.

**Transportation.** The majority of individuals discussed issues of transportation as a barrier to attendance. Participants discussed not having a car or not having the time or money to ride a bus as main barriers to attendance. This was particularly problematic for individuals considering the limited transportation infrastructure they described. Several people discussed the issue of lack of transportation services available in the community. The primary areas of concern were the distance of clinics from places of residence as well as public transportation and other transport services. Issues of cost, time, and safety were discussed as transportation related barriers. Some participants mentioned that while the free medical transport service was helpful, it posed additional barriers to use including having to make the appointment 24 h in advance. One participant noted that they often do not know that they need transport until a few hours before the appointment yet the free transport service cannot accommodate same-day transportation.

**Reminder systems.** Further, many participants discussed the automatic reminder system in place at their clinic. Most individuals suggested that if it were not for the reminders,

they would not attend their appointments, considering their lives are busy and appointments are made so far in advance. However, many participants highlighted problems with the reminder system. Some participants explicitly described clinical systems-related issues such as scheduling errors or reminder issues as reasons for not attending appointments. Several participants also expressed that the length of time between reminders and the actual appointment caused problems. Some claimed the reminders were too far away from the appointment resulting in forgetfulness and some were too close to the appointment resulting in conflicting in responsibilities and limited transportation options. Some participants expressed that individual factors, such as forgetfulness, sometimes compound clinical issues related to reminder systems. Reliance on reminder systems was pervasive among the sample. Others describe scheduling errors such as being told a different time or day than the clinic had scheduled.

**Patient recommendations.** Participants had many recommendations for improved reminder systems. Many individuals expressed interest in not only phone calls but text messages as well. Some preferred text messages to phone calls because they were able to retain the message and easily access it on their phone. The ability to put the appointment into a phone was a recurrent point. Having this ability allowed individuals to keep up with their appointments and have access to the appointment information at all times. Further, participants offered other suggestions for how clinics could better accommodate their needs. Some expressed interest in alternative appointments, such as after-hours or tele-health formats. A few individuals talked about later hours of operation as an important facilitator of attendance.

Overall, the findings related to insufficient systems suggest that these individuals occupy a particularly difficult place in society. Given, the participants’ questionnaire

responses indicated only moderate levels of mastery or control over their lives and limited levels of resiliency it is understandable that this group of people would likely be more impacted by barriers to attendance. Their ability to control their own lives, overcome obstacles, and attend appointments is either aided or diminished by the systems in which they operate. Systems should alleviate stressors or remove barriers to empower these individuals to attend appointments and influence the degree to which they use health care services.

## Discussion

Our results indicate that appointment disinterest, competing demands, and insufficient systems contribute to primary care appointment non-attendance among low-income patients. Our data provides a more nuanced understanding of the interplay between living in poverty and health care-related decision making. The qualitative approach of this study provides a more detailed account of how health care attendance decisions are made and the factors that influence individual's ability to make those decisions, thus giving researchers and practitioners an opportunity to design more relevant strategies to reduce barriers to appointment attendance for similar populations.

The first theme elucidates the complex factors that play into appointment disinterest. First, feelings of judgment by providers regarding lifestyle behaviors played a role in non-attendance in our study. Similarly, Drury and Louis<sup>38</sup> note that some obese patients may delay or avoid health care due to weight-related reasons such as being told to lose weight. Our study highlights that perceived judgment of lifestyles by providers may contribute to appointment non-attendance of patients, particularly those of low-income backgrounds who already are stigmatized in healthcare.<sup>39</sup> Second, patient perceptions of quality of care appeared to play a role in no show behavior. Some participants noted their dissatisfaction with their experiences with providers. These findings are similar to those in Green et al's<sup>40</sup> study of low-income women with trauma histories. Many of the patients in this study noted their provider was not meeting their needs. A strong patient-provider relationship is particularly crucial for those with current trauma, as these individuals are more likely to report not being respected by or having quality communication with their primary care providers.<sup>41</sup> Overall, our findings are consistent with other qualitative research findings in that the patient-provider relationship may both promote<sup>42</sup> and deter<sup>15,42</sup> appointment attendance.

Our findings highlight a previously unexplored context of trauma in no show behavior and potential areas in health care that can be improved for individuals with high no show rates that have experienced both pervasive poverty and trauma. This group of individuals reported very high ACES, described negative life experiences such as substance abuse,

family disorder, and mental health issues, and detailed experiences related to an inability to overcome obstacles to attend appointments. Utilization of health care services are important for individuals with these experiences. One study found higher ACES scores were associated with greater utilization of health care services<sup>43</sup> suggesting a greater need for health care services and a greater consequence for missing medical appointments. Both trauma-informed care and continuity of care may be beneficial for improving patient-provider relationships and thus reducing no show rates among low-income patients with these histories. Examples of trauma-informed care at the clinic level include promoting awareness and understanding of trauma within the healthcare facility and making sure providers are equipped to recognize trauma-related symptoms and behaviors that may indicate traumatic experiences.<sup>44</sup> At the provider level, a tenant of trauma-informed care is empowerment, voice, and choice.<sup>45</sup> Examples include explaining why the provider is doing something, asking permission before examining patients, and giving patients choices.<sup>46</sup> There is some evidence that provider trainings on trauma-informed communication improves patients' perceptions of their partnership with providers in the general population, though not in those with trauma histories.<sup>47</sup> Additional studies are needed to explore this further. Finally, continuity of care is also associated with positive patient perceptions of provider communication,<sup>48</sup> patient satisfaction,<sup>9</sup> and higher quality of care for patients.<sup>49</sup> Future interventions to reduce no show rates among low-income individuals might consider incorporating methods to address patient-provider relationships and continuity of care.

Our second and third themes highlight that, while individuals experience high rates of life chaos and instability, the health care systems they interact with are able to address some of the barriers to attendance but unable to provide the resources needed to regain control and overcome the instability of their personal lives. Our theme of competing demands is similar, yet not identical, to another qualitative study that found competing priorities, such as family or employment and increased forgetfulness about appointments.<sup>15</sup> Specifically, our findings illustrate the insufficiencies of both scheduling and transportation systems to meet patients' needs. Martin et al<sup>15</sup> had similar findings in relation to scheduling systems; appointment booking systems were a barrier to attendance. Current efforts to prevent no shows are predominantly centered on scheduling and reminder systems.<sup>50-52</sup> Of relevance to our study, phone reminders from a staff member appear to have a positive impact on no show rates as compared to automatic reminders.<sup>52</sup> McLean et al<sup>51</sup> hypothesize that direct, personal reminders via telephone for groups who are vulnerable to appointment non-attendance may help this group overcome attendance barriers. In our study, reminders from the clinics were primarily auto-generated. Personal reminders may not



only reduce no show rates but also align with trauma-informed practices of strengthening relationships and communication. Further, some in our sample expressed interest in alternate means of appointments, either after-hours or remote appointments, to help overcome individual and environmental barriers to attendance. As a result of COVID-19, the use of telehealth as a means to distribute primary care has increased dramatically.<sup>53</sup> Further, a scaling up of telehealth appointments during the pandemic offers promising evidence for a reduction in no show rates.<sup>54</sup> Our study suggests that these modes might be considered as a means of engaging patients outside of a pandemic context.

Findings also demonstrate that the transportation structures currently in place are far too rigid for participants with competing demands and limited resources. Transportation, though less pervasive, is a barrier to non-attendance in other studies.<sup>11,14</sup> Noting this barrier, 1 study implemented a ride-share program with pre-scheduled rides for Medicaid patients and found it to be effective in reducing no show rates.<sup>55</sup> Our findings suggest that effectiveness may be higher with real-time transport options. Individuals in our sample noted the inability of the current free transport system to accommodate same-day appointments. On-demand or day-of transportation may be a promising option for populations vulnerable to continuously evolving schedules and demands. Addressing transportation structures may be complicated by issues such as living in rural community or areas with less developed systems (eg, public transportation, ride-share programs, and medical transport).

This study has limitations. The demographic characteristics (eg, personal mastery and ACES) related the context of poverty for participants are meant to describe the population and is not an attempt to make conclusions about the relationship between these characteristics and appointment attendance. Instead, we provide recommendations on how to account for the demographic characteristics in order to tailor no show reduction strategies. While we make recommendations for populations with similar demographics, larger, population-based studies are required to determine the relationship between non-attendance behavior and factors such as trauma, and thus if the recommendations below are transferable to other contexts. Finally, recruitment was challenging in this study. Many participants did not show up for their scheduled interviews. It is possible those that did not participate in interviews may have even greater barriers to appointment attendance that made it difficult for them to participate. Additional strategies for recruiting hard-to-reach populations are needed.

## Conclusions

This study provides a comprehensive view of how poverty, rurality, and adverse life experiences contribute to individuals missing appointments. Our findings suggest that a lack

of interest in and fear of the medical encounter reduce motivation to attend appointments. Other demands pertaining to economic and family systems outcompete and overshadow the appointment's importance. Finally, the systems intended to facilitate attendance prove insufficient in the poverty context and instead make appointment attendance even more difficult. Our results point to the need for modified structures that allow low-income patients more control over their personal health. Further research is needed to generalize findings to a broader population.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported, in part, by Cascade Health Alliance. Cascade Health Alliance is a Coordinated Care Organization in Oregon that manages the Oregon Health Plan for Medicaid recipients.

## ORCID iDs

Kyle A. Chapman  <https://orcid.org/0000-0001-6170-0527>

Stephanie S. Machado  <https://orcid.org/0000-0002-2520-8313>

## References

1. George A, Rubin G. Non-attendance in general practice: a systematic review and its implications for access to primary health care. *Fam Pract*. 2003;20(2):178-184.
2. Kheirkhah P, Feng Q, Travis LM, Tavakoli-Tabasi S, Sharafkhaneh A. Prevalence, predictors and economic consequences of no-shows. *BMC Health Serv Res*. 2016;16:13. doi:10.1186/s12913-015-1243-z
3. Fiori KP, Heller CG, Rehm CD, et al. Unmet social needs and no-show visits in primary care in a US Northeastern Urban Health System, 2018-2019. *Am J Public Health*. 2020;110(S2):S242-S250. doi:10.2105/AJPH.2020.305717
4. Nguyen DL, Dejesus RS. Increased frequency of no-shows in residents' primary care clinic is associated with more visits to the emergency department. *J Prim Care Community Health*. 2010;1(1):8-11. doi:10.1177/2150131909359930
5. Hwang AS, Atlas SJ, Cronin P, et al. Appointment "no-shows" are an independent predictor of subsequent quality of care and resource utilization outcomes. *J Gen Intern Med*. 2015;30(10):1426-1433. doi:10.1007/s11606-015-3252-3
6. Parker MM, Moffet HH, Schillinger D, et al. Ethnic differences in appointment-keeping and implications for the patient-centered medical home—findings from the Diabetes Study of Northern California (DISTANCE). *Health Serv Res*. 2012;47(2):572-593. doi:10.1111/j.1475-6773.2011.01337.x
7. Schectman JM, Schorling JB, Voss JD. Appointment adherence and disparities in outcomes among patients with diabetes. *J Gen Intern Med*. 2008;23(10):1685-1687. doi:10.1007/s11606-008-0747-1

8. Nguyen DL, DeJesus RS, Wieland ML. Missed appointments in resident continuity clinic: patient characteristics and health care outcomes. *J Grad Med Educ.* 2011;3(3):350-355. doi:10.4300/JGME-D-10-00199.1
9. van Walraven C, Oake N, Jennings A, Forster AJ. The association between continuity of care and outcomes: a systematic and critical review. *J Eval Clin Pract.* 2010;16(5):947-956. doi:10.1111/j.1365-2753.2009.01235.x
10. O'Malley AS. Current evidence on the impact of continuity of care. *Curr Opin Pediatr.* 2004;16(6):693-699.
11. Kaplan-Lewis E, Percac-Lima S. No-show to primary care appointments: why patients do not come. *J Prim Care Community Health.* 2013;4(4):251-255. doi:10.1177/2150131913498513
12. Alkomos MF, Mendez D, Mazzei-Pifano D, et al. Patients' reasons for missing scheduled clinic appointments and their solutions at a major urban-based academic medical center. *J Community Hosp Intern Med Perspect.* 2020;10(5):426-430. doi:10.1080/20009666.2020.1796903
13. Ahmad MU, Zhang A, Mhaskar R. A predictive model for decreasing clinical no-show rates in a primary care setting. *Int J Healthc Manag.* 2021;14(3):829-836. doi:10.1080/20479700.2019.1698864
14. Lacy NL, Paulman A, Reuter MD, Lovejoy B. Why we don't come: patient perceptions on no-shows. *Ann Fam Med.* 2004;2(6):541-545. doi:10.1370/afm.123
15. Martin C, Perfect T, Mantle G. Non-attendance in primary care: the views of patients and practices on its causes, impact and solutions. *Fam Pract.* 2005;22(6):638-643. doi:10.1093/fampra/cmi076
16. Traeger L, O'Cleirigh C, Skeer MR, Mayer KH, Safren SA. Risk factors for missed HIV primary care visits among men who have sex with men. *J Behav Med.* 2012;35(5):548-556. doi:10.1007/s10865-011-9383-z
17. Braveman PA, Cubbin C, Egerter S, Williams DR, Pamuk E. Socioeconomic disparities in health in the United States: what the patterns tell us. *Am J Public Health.* 2010;100(Suppl 1):S186-S196. doi:10.2105/AJPH.2009.166082
18. Shafir E. Decisions in poverty contexts. *Curr Opin Psychol.* 2017;18:131-136. doi:10.1016/j.copsyc.2017.08.026
19. Wadsworth ME, Raviv T, Reinhard C, Wolff B, Santiago CD, Einhorn L. An indirect effects model of the association between poverty and child functioning: the role of children's poverty-related stress. *J Loss Trauma.* 2008;13(2-3):156-185. doi:10.1080/15325020701742185
20. Bolin J, Bellamy G, Ferdinand A, Kash B, Helduser J, eds. *Rural Healthy People 2020.* Vol. 1. Texas A&M Health Science Center School of Public Health, Southwest Rural Health Research Center; 2015. Accessed January 10, 2021. <https://srhrc.tamhsc.edu/docs/rhp2020-volume-1.pdf>
21. Gruber J, Sommers BD. The Affordable Care Act's effects on patients, providers, and the economy: what we've learned so far. *J Policy Anal Manage.* 2019;38(4):1028-1052. doi:10.1002/pam.22158
22. Bryant A, Charmaz K. *The SAGE Handbook of Grounded Theory.* SAGE Publications; 2007. Accessed March 23, 2021. <http://site.ebrary.com/id/10668447>
23. Charmaz K. *Constructing Grounded Theory.* SAGE Publications; 2014.
24. Glaser BG, Strauss AL. *The Discovery of Grounded Theory: Strategies for Qualitative Research.* Aldine Publishing; 1967.
25. Oregon Health Insurance Marketplace. What am I likely eligible for? Published online 2017. Accessed January 11, 2021. <https://healthcare.oregon.gov/DocResources/5063.pdf>
26. Oregon Health Authority. Percentage of people with health insurance remains high, according to Oregon Health Insurance Survey. Accessed January 11, 2022. <https://www.oregon.gov/oha/ERD/Pages/2019-Oregon-Health-Insurance-Survey.aspx>
27. Morse JM. The significance of saturation. *Qual Health Res.* 1995;5(2):147-149. doi:10.1177/104973239500500201
28. Bombak AE. Self-rated health and public health: a critical perspective. *Front Public Health.* 2013;1:15. doi:10.3389/fpubh.2013.00015
29. Strawbridge WJ, Wallhagen MI. Self-rated health and mortality over three decades: results from a time-dependent covariate analysis. *Res Aging.* 1999;21(3):402-416. doi:10.1177/0164027599213003
30. Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, Bernard J. The Brief Resilience Scale: assessing the ability to bounce back. *Int J Behav Med.* 2008;15(3):194-200. doi:10.1080/10705500802222972
31. Pearlin LI, Schooler C. The structure of coping. *J Health Soc Behav.* 1978;19(1):2-21.
32. LaVeist TA, Isaac LA, Williams KP. Mistrust of health care organizations is associated with underutilization of health services. *Health Serv Res.* 2009;44(6):2093-2105. doi:10.1111/j.1475-6773.2009.01017.x
33. Matheny AP, Wachs TD, Ludwig JL, Phillips K. Bringing order out of chaos: psychometric characteristics of the confusion, hubbub, and order scale. *J Appl Dev Psychol.* 1995;16(3):429-444. doi:10.1016/0193-3973(95)90028-4
34. Wong MD, Sarkisian CA, Davis C, Kinsler J, Cunningham WE. The association between life chaos, health care use, and health status among HIV-infected persons. *J Gen Intern Med.* 2007;22(9):1286-1291. doi:10.1007/s11606-007-0265-6
35. Felitti VJ, Anda RF, Nordenberg D, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med.* 1998;14(4):245-258. doi:10.1016/s0749-3797(98)00017-8
36. Denzin NK. Strategies of multiple triangulation. In: Denzin NK, ed. *The Research Act.* Routledge; 2009:297-313.
37. Deterding NM, Waters MC. Flexible coding of in-depth interviews: a twenty-first-century approach. *Sociol Methods Res.* 2021;50(2):708-739. doi:10.1177/0049124118799377
38. Drury CAA, Louis M. Exploring the association between body weight, stigma of obesity, and health care avoidance. *J Am Acad Nurse Pract.* 2002;14(12):554-561. doi:10.1111/j.1745-7599.2002.tb00089.x
39. Allen H, Wright BJ, Harding K, Broffman L. The role of stigma in access to health care for the poor. *Milbank Q.* 2014;92(2):289-318. doi:10.1111/1468-0009.12059
40. Green BL, Kaltman SI, Chung JY, Holt MP, Jackson S, Dozier M. Attachment and health care relationships in low-income

- women with trauma histories: a qualitative study. *J Trauma Dissociation*. 2012;13(2):190-208. doi:10.1080/15299732.2012.642761
41. McNutt LA, van Ryn M, Clark C, Fraiser I. Partner violence and medical encounters: African-American women's perspectives. *Am J Prev Med*. 2000;19(4):264-269. doi:10.1016/s0749-3797(00)00233-6
  42. McLean S, Gee M, Booth A, et al. *Patterns and Influences on Health-Care Attendance Behaviour: A Narrative Overview of Key Themes and Issues*. NIHR Journals Library; 2014. Accessed May 11, 2021. <https://www.ncbi.nlm.nih.gov/books/NBK260108/>
  43. Bellis M, Hughes K, Hardcastle K, et al. The impact of adverse childhood experiences on health service use across the life course using a retrospective cohort study. *J Health Serv Res Policy*. 2017;22(3):168-177. doi:10.1177/1355819617706720
  44. Center for Substance Abuse Treatment (US). *Trauma-Informed Care in Behavioral Health Services*. Substance Abuse and Mental Health Services Administration (US); 2014. Accessed April 27, 2021. <http://www.ncbi.nlm.nih.gov/books/NBK207201/>
  45. *SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach*. Substance Abuse and Mental Health Services Administration; 2014. Accessed April 27, 2021. <https://calio.dspacedirect.org/handle/11212/1971>
  46. Rittenberg E. Trauma-informed care—reflections of a primary care doctor in the week of the Kavanaugh hearing. *N Engl J Med*. 2018;379(22):2094-2095. doi:10.1056/NEJMp1813497
  47. Green BL, Saunders PA, Power E, et al. Trauma-informed medical care: patient response to a primary care provider communication training. *J Loss Trauma*. 2016;21(2):147-159. doi:10.1080/15325024.2015.1084854
  48. Love MM, Mainous AG, Talbert JC, Hager GL. Continuity of care and the physician-patient relationship: the importance of continuity for adult patients with asthma. *J Fam Pract*. 2000;49(11):998-1004.
  49. Cabana MD, Jee SH. Does continuity of care improve patient outcomes? *J Fam Pract*. 2004;53(12):974-980.
  50. Guy R, Hocking J, Wand H, Stott S, Ali H, Kaldor J. How effective are short message service reminders at increasing clinic attendance? A meta-analysis and systematic review. *Health Serv Res*. 2012;47(2):614-632. doi:10.1111/j.1475-6773.2011.01342.x
  51. McLean SM, Booth A, Gee M, et al. Appointment reminder systems are effective but not optimal: results of a systematic review and evidence synthesis employing realist principles. *Patient Prefer Adherence*. 2016;10:479-499. doi:10.2147/PPA.S93046
  52. Parikh A, Gupta K, Wilson AC, Fields K, Cosgrove NM, Kostis JB. The effectiveness of outpatient appointment reminder systems in reducing no-show rates. *Am J Med*. 2010;123(6):542-548. doi:10.1016/j.amjmed.2009.11.022
  53. Alexander GC, Tajanlangit M, Heyward J, Mansour O, Qato DM, Stafford RS. Use and content of primary care office-based vs telemedicine care visits during the COVID-19 pandemic in the US. *JAMA Netw Open*. 2020;3(10):e2021476. doi:10.1001/jamanetworkopen.2020.21476
  54. Kotsen C, Dilip D, Carter-Harris L, et al. Rapid scaling up of telehealth treatment for tobacco-dependent cancer patients during the COVID-19 outbreak in New York City. *Telemed J E Health*. 2021;27(1):20-29. doi:10.1089/tmj.2020.0194
  55. Chaiyachati KH, Hubbard RA, Yeager A, et al. Rideshare-based medical transportation for Medicaid patients and primary care show rates: a difference-in-difference analysis of a pilot program. *J Gen Intern Med*. 2018;33(6):863-868. doi:10.1007/s11606-018-4306-0