

Technological Hindrances of Behavioural Medicine Patient Access: A Literature Review

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Abstract

Technology is a pervasive tool utilized throughout inpatient and outpatient hospital care. Behavioral medicine has a plethora of technology to integrate and support medical infrastructure and processes.

A systematic literature review was performed to classify the technological hinderances that specifically plague behavioral medicine. Researchers examined articles contained within the databases of CORE, Elsevier, PubMed, ResearchGate, and ScienceOpen and pulled all relevant articles. A total of 85 articles were collected after the removal of duplicates.

Several themes have been identified in the systematic literature review that negatively affects behavioral medicine treatment at the provider, clinical staff, non-clinical staff, patient, and organizational levels. These themes are a lack of behavioral medicine patient resources, a surfeit of stigmas surrounding treatment, higher levels of comorbidities in these patients as compared to non-behavioral medicine specialties, and a reliance on outdated educational protocols for training staff. The themes significantly affect patients within the behavioral medicine specialty more than other subsectors of medicine due to the unique ailments that behavioral medicine encompasses.

The future climate of behavioral medicine treatment could be affected by the aforementioned hinderances. However, evidence in the literature review displays positive findings when employee education and technological integration are combined. Further research should be directed towards the implementation of SBE into clinical and non-clinical behavioral medicine employee training.

Keywords: Ambulatory • Behavioral health • Behavioral medicine • Continuity of care (COC) • Electronic health record (EHR) • Primary care provider (PCP) • Scenario-based education (SBE) • Situ-simulation

Abbreviations: SBE: Scenario-Based Education • BH: Behavioral Health • COC: Continuity of Care • PCP: Primary Care Provider • EHR: Electronic Health Record

Introduction

Prior to World War I, a majority of education in clinical settings was conducted in a traditional lecture-based process by which students seldom participated in their own learning [1,2]. Coincidentally, the advent of war increased the necessity for hands-on training for clinical staff to improve knowledge, decrease anxiety, and improve confidence during trauma situations [3-6]. Healthcare institutions have adopted this format of education and training for clinical personnel, such as nurses and medical students, to improve practitioner skills prior to patient interactions [5-7].

The same measures have not been implemented into non-clinical positions, such as registration and scheduling [8-10]. An abundance of role-related problems, such as poor communication with patients and insufficient use of technology, persistently exists in non-clinical healthcare environments that negatively affect patient care [10,11]. These issues, coupled with the specific attributes of the behavioral medicine specialty, have created a chaotic structure of ineffective relationships with patients and non-clinical personnel [8-13].

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Methods

Researchers conducted a comprehensive search of research databases for the most relevant articles. The research databases included CORE, Elsevier, PubMed, ResearchGate, and ScienceOpen. We only included published, peer-reviewed articles written in English.

The search strategy was designed and tested by an academic librarian. The chosen keywords and the affiliations between these keywords were standardized for searches in each database: (behavioral medicine OR behavioral health OR electronic health record OR electronic medical record) AND (scenario-based education OR situ-simulation OR simulation-based training). A date range was not applied to the search as the field is narrow with limited research.

Results

Limited behavioral medicine resources

The challenges facing patients suffering from behavioral health ailments in geographical locations with few health care resources can increase the likelihood of health deterioration [14,15]. In these locations, the burden of responsibility for treating behavioral health patients often falls on the available resources, such as emergency departments (EDs), urgent cares, and PCPs [14-16]. The spectrum of behavioral health morbidities can range widely from low severity issues, such as acute anxiety and attention-deficit hyperactive disorder (ADHD) to homicidal and suicidal ideation, extreme depression, and schizophrenia. These issues can erupt when resources are limited, and available forms of care attempt to treat these cases [14,15]. One study identified that 50% of all behavioral medicine patients who arrive at the ED do so between the hours of 4 P.M. and midnight; a time when

most ambulatory offices are closed [16,17]. The researcher also discovered from the year 2012 to 2015, the number of behavioral health-related ED cases rose by 85%, displaying an increase in the utilization of outpatient-alternative treatments [14,16,17].

While some geographic locations may be plagued by a lack of behavioral health resources, evidence shows that limited access is also apparent in resource-abundant areas [16-18]. One study interviewed 240 psychiatrists specializing in post-traumatic stress disorder (PTSD) regarding appointment availability for acute patients [17]. Of these providers, only 21% (n=88) were accepting new patients. Of the available openings, a patient's ability to receive one was strongly correlated to what type of insurance they possessed. Only 15% of the 88 offices accepted new patients with Medicaid, 34% accepted Medicare, 54% took Anthem BlueCross, and 93% accepted self-pay [8,17-19]. These findings correlate to the unwillingness of providers to negotiate with insurance companies to cover services, and a strong association to not accept government-funded insurance (Centers for Medicare & Medicaid Services) [17,18,20]. While ambulatory specialists are not required to provide each patient with a visit, EDs must treat any patient who requests to be seen, which could be contributing to higher emergency care volumes. Proactive care is much more affordable than ED treatments, and this cost savings benefit provides greater emphasis on improving care access and the processes needed for educating healthcare personnel [8,16-19]. This includes improving the emphasis and quality of non-clinical staff education.

Combating stigmas hindering behavioral medicine treatment

Behavioral medicine-related symptoms are often submerged in stigmatizations that can hinder the access and quality of care that patients receive. These beliefs can reside in the clinical staff assigned to treat patients on a conscious and subconscious level. Additionally, the negative attitudes associated with behavioral medicine can disengage patients from taking an active role in their treatment, further creating a void in care [21-23]. This belief was tested with an experiment that was conducted with a male actor who visited 166 primary care (42.2%) and behavioral health specialist (57.8%) offices seeking treatment for back pain [21]. Survey data were collected from each provider post-visit, along with results from the visit. An inverse relationship was observed between providers that had behavioral health stigma perceptions and their level of comfort with treating a patient with associated symptoms such as PTSD, schizophrenia, and substance abuse [21,22,24]. Furthermore, PCPs that endorsed stigmatization characteristics of behavioral health were less likely to refer a patient to a behavioral medicine specialist [21]. As literature will further attest, a passive perspective of a patient's treatment can have destructive effects on the appointment scheduling process [16,21-24].

Attributes currently inhibiting access to behavioral health treatment include financial hurdles, resource limitations, and the presence of comorbidities. Examined in this review are the confines associated with the appointment scheduling process between a PCP and a behavioral medicine specialist, and how educating staff to handle such difficulties can improve outcomes. Discussed in this research is the flow of behavioral medicine patients being referred to a specialist from a PCP, and the obstacles within this process. The literature review has displayed evidence of organizations overcoming these obstacles through improving staff education and strategies used when communicating with behavioral medicine patients [4,25].

The stigmatizations surrounding behavioral health can negatively affect children as well as adults [15,16,21]. A study published in the *Journal of Psychiatric Services* emphasizes this point of pediatric behavioral medicine clinical stigmatization. The researcher in this study posed as the parents of children suffering from adolescent depression attempted to schedule an appointment with 264 psychiatric outpatient offices [15]. Less than two-thirds of participants could obtain an appointment with a provider. Of the subjects who were not able to make an appointment, 19% were not given a referral to another specialist. Of those parents that made an appointment,

most subjects had to make two or more phone calls and talk to two or more people before the appointment was made. Coincidentally, the researcher also discovered that race, ethnicity, urbanicity, and insurance did not present a correlational relationship to appointment scheduling [15,16].

While the previous research findings cannot be generalized to all behavioral medicine patients, it does provide insight to obstacles that need to be accounted for when training new personnel [26,27]. Additionally, it emphasizes how important it is to create education tapered to the user's specialty in which they will be employed. If not, the user could lose interest in the education being disseminated due to its generic and non-associated context [21,28].

Educating staff on the attributes associated with behavioral medicine patients

The characteristics commonly found in behavioral medicine are unique compared to general practice and other sub-specialties. These differences affect the workflows of clinical and non-clinical personnel, and as such, training should be tapered to account for these differences. One unique attribute with behavioral medicine are the frequent association with high-severity encounters; a morbidity that could have severe consequences to one's health if not treated immediately [29-31]. From 2008 to 2012, medical encounters labeled with status of "high-severity" rose in the United States by 1.45 million [30,31]. High-severity problems in this study included "disruptive behavior disorders, mood disorders, anxiety disorders, and psychoses and developmental disorders" [30]. Patients that sought treatment rose to 43.9% by 2012, and low-severity patients that sought treatment rose to 9.6% by the same year. While low-severity patients accounted for the most significant population subgroup, high-severity patients associated with the highest percentage of help seekers [30,31].

While the demand for higher levels of seamless, accessible treatment is continuously growing, the rates of patient absenteeism remain a constant obstacle within behavioral medicine [29-32]. When patients present poor attendance, the care and accessibility of fellow patients can suffer [29,32,33]. From 1998 to 2008, research was conducted at the Veterans Affairs Medical Center of Houston, Texas, on the effects of patients not attending a scheduled appointment without canceling or rescheduling [29]. This behavior is often labeled a no-show. The researcher discovered multiple factors could affect patient attendance including proximity to the office, financial burdens, appointment forgetfulness, and poor patient-staff communication. When a no-show appointment slot does not get filled by another visit, the costs associated with that visit remain. These costs include paying the provider and support staff and the related infrastructure expenses to keep an office open. It was calculated that the average price of a no-show was \$196, and the highest rate of no-shows occurred in specialty offices [29]. Clinical staff can be trained to identify these attributes and target the most at-risk patients with stronger communication techniques. Staff can also use medical record system reports to determine groups of patients with common denominators [29-32,34].

For healthcare organizations (HCOs) to combat the issue of poor patient attendance, research has sought to discover behavioral patterns and trends associated with missed appointments, and to incorporate these identifiers into healthcare training [35-37]. If these patterns can be identified, HCOs can create more-robust education for new and established staff. Research has discovered common patient characteristics isolated within behavioral medicine that could help construct a predictive behavior model [36,37]. Patients most likely to miss an appointment often have a comorbid disease burden, and current diagnoses of mood and substance use disorders [38]. However, historical research has not examined the behavioral medicine subspecialty in comparison to general medicine. This chasm displays a need for additional research on attributing characteristics that could be affecting patients in this field, such as substance abuse disorders, high absenteeism rates, and lack of autonomy [36-38].

Five humanistic attributes were discovered as being associated with decreasing no-show appointments among all specialties within healthcare:

- The promotion of information and resources to patients.
- Case management referral to and from the e-service.
- Coaching support on how to use the system.
- Symptom-focused treatment by developing a patient assessment and directed care plan.
- Comprehensive therapy that addresses a multi-variable patient-centered approach [37-39].

It was surmised that behavioral medicine organizations who wish to integrate e-resources into their practice model should do so while allocating sufficient resources to the five trends [35-39].

Education for new hire behavioral staff should include methods for decreasing missed appointment rates [35-39]. Specific individual attributes have been identified as character traits of patients who commonly no-show for their scheduled appointment. These attributes include individuals who are younger, nonwhite, male, or have been diagnosed with behavioral health issues. The researcher also found interventions to improve compliance could be targeted at these individuals to decrease the burden of no-shows on health care systems. This reinforces the patient-centered method of appointment responsibility instead of solely on the provider or organization's responsibility [25,38,39].

It has been highlighted that the COC model at the primary care level can break down due to patient noncompliance. However, it is important to mention the evidence does not constitute a cause and effect relationship between any attributes and appointment no-shows, but only a significant relationship. Medical offices can reject patients if repetitious noncompliance behavior is displayed [25,38,39].

The importance of highlighting obstacles attributed to behavioral medicine is important for educating clinical and non-clinical personnel who represent this subspecialty. To provide these staff with generic or similar training as different specialties would be discounting problems linked to behavioral medicine [35-39]. Furthermore, the absence of properly identifying these characteristics in a formal training curriculum could hinder patient-staff relationships and ultimately cause an increase in No Show appointments.

One issue associated with poor behavioral health outcomes has been shown to be a lack of understanding the physical, social, mental, and behavioral issues that patients incur. One solution which has displayed success when combating physical ailments, such as cancer and dementia, has been improved communication between a provider and a patient's family [32]. By discussing behavioral health symptoms and possible treatment options in an open forum, providers can build a rapport with a patient's family while developing an understanding of the disease. This does not conflict with Health Insurance Portability and Accountability Act (HIPAA) regulations if patient identifiers are kept anonymous. Since providers are often gatekeepers to treatment options, it is imperative these stigmas present in healthcare staff be overcome. Evidence has shown when providers are educated on the importance of communicating with family/caregivers, treatments appear to have higher success rates [15,21,31,32].

In addition to enforcing healthcare staff communication with patients/caregivers through education, research has shown improving knowledge of treatment success through decreasing stigma perceptions can have a positive holistic outcome for the patient. These stigmas can be overcome through additional educational interventions such as highlighting sensitive patient-staff communication, creating SBE curriculum, and by integrating role processes into Epic education [31,32]. These methods can be implemented by immersing behavioral medicine staff into scenario-based exercises by designing curriculum that meets this need [21,31]. The importance of educating clinical staff on the stigmas associated with behavioral health patients can improve a patient's accessibility to treatment and overall outcomes [15,21,31,32,40].

While the importance of SBE on overcoming stigma-related issues

has shown benefits, organizational and cultural changes can also have a significant impact on treatment outcomes. Healthcare organizations are charged with providing adequate training to their staff. However, when a company's culture fails to identify and implement improvement measures through adequate training, the outcomes can have negative impacts on patients. When marginalized cultures or subgroups are provided with inadequate resources, such as infrastructure and policy-driven initiatives, these groups can receive negative ramifications as a result. This applies to healthcare organizations that do not create enough behavioral medicine treatment facilities, staff facilities with plentiful providers, or provide proper education to staff. When healthcare organizations facilitate a macro approach to improving the outcomes of minority groups, these changes can have immediate positive effects, and create an environment of sustainability [10,17,41,42].

Behavioral medicine-based situational education

Implementing education to clinical and non-clinical employees pertaining to the awareness of issues surrounding behavioral medicine-specific diagnoses has shown to improve a patient's overall experience [15,21,31,32]. Scheduling and registration employees are typically the first staff to interact with a patient when arriving to an outpatient or ambulatory setting. As discussed in this study, behavioral medicine patients have unique attributes that can differentiate their behaviors, perceptions, and attitudes in contrast with other medical specialties [38,43]. These unique patients are better handled by staff that can react to these variables.

Education targeted at schedulers in behavioral medicine should be specific enough to accommodate for the most-common situations one may face [15,21]. Due to the possible strenuous situations that could arise in this setting, sensitive communication should be top priority when interacting with patients [13,17,26]. Being courteous, conscientious, and caring are communication factors taught to schedulers when greeting and communicating with patients [15]. Avoiding stressful communication and negative behaviors from the patient is imperative for all parties involved [13,26].

Schedulers and registrars learn in repetitional practice that not all patients fit the same mold, which requires variations to the education they receive [38,43]. Specifically, schedulers should be trained on the scenarios in which the non-ideal patient calls to make an appointment, or checks-in for their appointment. The personal and financial issues often displayed in behavioral medicine patients can lead to scheduling mishaps. Common issues that can impede a typical scheduling workflow is the patient not having a physical address, working telephone number, reliable emergency contact, and no health insurance [8,17,18]. Studies show that these missing pieces more-commonly affect patients seen in behavioral medicine compared to all other specialties [8,18]. Schedulers in this field should receive education on the processes to follow when obstacles such as these are encountered.

Discussion

In addition to providing quality customer service, behavioral medicine schedulers are in a unique position to engage positive behaviors in patients. The importance of a patient receiving treatment for an issue is imperative, however, poor patient-staff interaction can deter patients from continuing to seek assistance [15,21,31,32,44]. Patients tend to follow through with treatment when the process is calm and non-burdensome. Clinical and non-clinical staff use tactics to engage and sustain engagement with patients while being sensitive to possible signs of aggression [44]. Some of the tactics shown to generate patient engagement from the scheduler role are:

- Using positive greetings such as (a) hello, (b) welcome, (c) how may I help you, and (d) thank you [15,21,32]
- Provide patients with an estimated wait time at check-in [15,21,32].
- Be familiar with the process for scheduling and checking-in patients who do not have certain demographic pieces such as a mailing

- address, phone number, or health insurance [15,21,32].
- Create an environment where patients feel they have independence and control over the care they will receive [44].
- Never tell a patient they are forced to do something.
- Never threaten to refuse treatment for noncompliance, unless used as a last resort.
- Be accommodating and courteous to patients [15,21,31,32,44].
- These tools should be emphasized when training new and established behavioral medicine schedulers.

Theoretical Framework

SBE is a form of education that utilizes specific scenario-based tools to mimic real-life situations the students may encounter [45,46]. Common apparatuses used in this format are videos displaying simulations, scenario-based exercises, teach-backs, and follow-up questions [45-47]. Teach-back is a term used to describe a student who teaches material back to the class and/or instructor to verify understanding and competency. This form of student-led training is commonly used in clinical situations [47].

Andragogy is the educating of adult learners, and SBE has been found to be an effective tool in this field [45-49]. However, adult learners come with unique obstacles not found in pedagogy [48,50-52]. Adult learners are unlike younger students who flourish with traditional instruction, lecturing, and a guided process based on an absence of pre-learned knowledge [48-51]. Adult learners tend to thrive when they can participate in learning exercises, and when their feedback is used to tailor education to their specific demands [48,49]. Educational material tends to be ingested by the learner at greater rates when the principles of andragogy are implemented within the adult training (Figure 1) [48,49,53].

Data has shown an improvement of knowledge, situational confidence, and lowered anxiety when SBE is used in healthcare and non-healthcare

settings with adult students [3,48,54,55]. Found mostly in clinical settings, SBE can prepare students for real-life occupational events by submerging them into possible situations they may encounter. SBE is a controlled environment that allows for instructors to test students in various situations with different variables. The greatest benefit from this type of training is the elimination of harm applied to real patients [3,54,55].

While the individual student benefits to scenario-based training have been well documented at the clinical level, very little information is known about SBE results on non-clinical adults [3,54,55]. Additionally, no studies were found that demonstrated testing this educational tool on behavioral medicine non-clinical employees [45,46,49].

Figure 2 displays a portrait of andragogy being applied to behavioral medicine non-clinical staff education. The model is based on evidence collected during the review of literature and depicts some of the common issues found in healthcare organizations related to poor quality or inadequate education (Figure 2) [13,15,56].

Communication and Scheduling in the continuity of Care Model

Communication is the most crucial variable in the COC model [23,34]. When communication between clinical staff and patients deteriorates, the resulting treatment can decline. Educating staff on the importance of COC by emphasizing transparent communication and providing patients with accessible treatment resources is crucial to improvement [10,23,34].

The COC process is an established protocol for treatment handoff from one care entity to another, and heavily involves scheduling [4,25,57]. The initial process within the primary care setting was heavily patient-dependent. Now, health staffs have begun to utilize multiple software programs within their individual roles that improve the efficiency of and shorten the COC timeline. This has created a greater need for EHR and system education to be integrated into employee training [10,39,45,58]. Specifically, behavioral medicine schedulers can complete most of their job responsibilities, including make appointments and document on patient charts, within an EHR [4,10,25]. The COC model has transferred responsibility from pa-



Figure 1: Theoretical Framework-The components to the theory of Adult Learning.

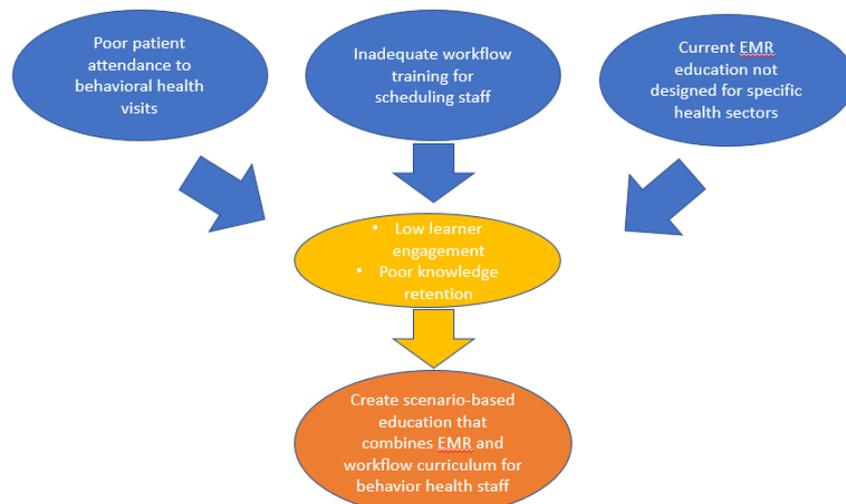


Figure 2: Andragogy theory applied to Behavioral Medicine staff education.

tient to non-clinical staff, such those who schedule appointments [57,59].

Problems associated with the COC process in behavioral medicine outpatient environments include the following:

- Patients having poor relationships with behavioral medicine staff.
- Experiencing frequent setbacks and anxiety due to breaks in poor provider-patient relationships.
- Poor timeliness of staff getting in contact with patients.
- Long wait times at appointment check-ins.
- Not getting quality or appropriate help when needed.
- Having a one-sided struggle with staff.
- Having an array of support options to choose from with little guidance.
- Feeling confused and insecure about making a medical choice [4,10,25]

Communication limitations continue to be an obstacle in behavioral medicine treatment. Communication between PCPs and specialist providers (SPs) about patient care has recently been examined by peer-reviewed studies [60-62]. Results collected from a survey gathered from the Health System Survey were analyzed in 2008. The study found contrasts in the perceptions of PCPs and SPs related to the referral process. Most PCPs (69.3%) had positive attitudes towards their actions conducted in the referral process [62]. PCPs stated that they routinely ordered referrals and created a comprehensive chart to transfer along to the SP. However, only 34.8% of SPs agreed that they regularly receive health documentation related to the patient from the PCP. Of the SPs surveyed, over 80% stated that they routinely provide feedback of the consult appointment to the PCP, but only 62.2% of PCPs agree that they routinely receive such feedback. This evidence encapsulates another example where education is needed to improve process facilitation and to emphasize the negative aspects resulting from failed communication [60-62].

A crucial piece of the COC scheduling process is the communication between the patient or patient's representative, and scheduling staff [41,61,62]. It is important to remind patients' days in advance of an upcoming appointment to eliminate possible absenteeism. In addition to reminder timeliness, the volume of appointment reminders has shown to increase the likelihood of a patient arriving and presenting on time for their appointment [8,14,63]. When a breakdown in communication occurs, a patient's treatment could be delayed or terminated [31-34,41].

Emphasizing EHR features associated with behavioral medicine processes

Research shows that patients who are reminded of their visits with a phone call, email, or text message tend to have significantly higher attendance records than patients who do not receive a reminder [10,58]. One tool used to improve patient attendance is text messaging. Studies show that this tool can be used in four primary ways: appointment reminders, informational messages, supportive messages, and self-care monitoring of one's symptoms. Research suggests that while phone and written communication are still utilized most often when contacting patients, appointment reminder text messages are becoming more prevalent [10,58]. EHR systems often provide documentation features for schedulers to note on specific patients and visits [64,65].

Patients suffering from behavioral health morbidities are unique compared to other specialties due to their propensity towards behaviors that result in greater appointment absenteeism, even when appointment reminders are utilized [39,42]. One study in the *Journal of Psychiatric Services* compared different types of communication tools and strategies used when contacting patients to alert them of an upcoming appointment [10]. In this study, appointment reminders resulted in three outcomes: (1) a live phone call where a representative spoke with the patient, (2) a voicemail left on the

patient's phone, (3) and no answer by the patient. Of the 250 patients, 221 (88%) attended their appointment at the scheduled date and time. Of the patients in whom a representative could get ahold of them, only 3% were no-shows. Of the voicemail reminder group, 24% were no-shows, and 39% of the no-answer patients were no-shows. This study showed that appointment reminders are an important tool used to combat absenteeism, and an inverted correlation was observed between the volume and frequency of reminders and absenteeism rates [10].

Patients with comorbidities may require stronger or flexible communication techniques from non-clinical and clinical outpatient staff to improve appointment attendance [10,39,42,53]. Research has shown that when communication barriers between a treatment team and a patient are removed, this effect correlates with positive patient health outcomes [53]. Options for improvements include having the patient's family or caregivers be present during communication with medical staff, and having communication take place in an environment with limited distractions [10,39,41,53]. One example of this is to check-in a patient in a space away from others to ensure the confidentiality of private information [10,39]. Educating staff on the importance providing patients with transparent and specific details pertaining to their scheduled appointment are important holistic features to a patient's treatment [39,41,66].

Evidence of past studies have linked positive health outcomes with consistent patient attendance at scheduled appointments. Due to the unique psychosocial attributes associated with behavioral health symptomatic patients, medical staff should review their workflows and communication strategies to better accommodate the needs of these patients [10,39,66]. A tool used by healthcare staff to improve health communication and patient attendance is an appointment reminder system. Past research has highlighted how contacting patients utilizing an appointment reminder system, either in an automatic or manual form, can improve the attendance rate of office visits [10,39]. Education designed to facilitate the teaching of appointment reminders in association with improved communication techniques, including the emphasis on live patient contact, has shown to improve patient attendance and treatment outcomes [10,23,34,39,41,66].

Another tool used by scheduling employees to combat patient absenteeism is to overbook or double-book the schedule. Research has discovered that some outpatient medical offices will schedule two or more patients for the same time slot while assuming that one of the patients will never arrive for their appointment. Patients are often selected based on their pattern of noncompliance or absenteeism with the office, being diagnosed with substance abuse, or having another significant medical issue [8,63]. Studies have shown that patients with a diagnosis of alcohol or drug-associated abuse have a greater likelihood of not showing for their scheduled outpatient appointments [8,58,63]. Furthermore, behavioral medicine patients with existing comorbidities also have a higher rate of absenteeism in the aforementioned setting [34,58].

Benefits to SBE

One key difference between medical and non-medical employee training in healthcare is the strategy of solving a specific problem. Providers and clinicians are often trained in programs using problem-based learning (PBL) as tool in SBE. Clinical staff uses PBL to diagnose and to treat a patient suffering from an ailment. During this course of learning, these subjects are exposed to related treatments, associated ailments, and protocols that occupy the periphery. This type of learning is best for creating job experience and employee confidence as students are exposed to realistic role-related problems [67,68].

Non-clinical healthcare employees, such as schedulers and registrars, may also take part in PBL or SBE. However, this training is often less financially supported by healthcare organizations than its clinical contrast. This weak support can cause non-clinical staff to not have the same learning infrastructures, resources, or accessibility to organizational education as medical providers [69,70].

The benefits to having quality SBE programs are vast. The positive impacts can reach far beyond the individual student, with reverberations continuing throughout an organization [67,68]. However, immediate impressions are felt within the classroom on students. This form of training can be as useful to schedulers as it is for clinicians. Some of the major benefits to SBE include:

- Advancement of skills at a faster rate than traditional lecture-based education.
- Ability to manipulate the training environment to match a targeted context.
- Versatility of SBE to be tapered to various skill and experience levels.
- Avoiding potential harm to patients by eliminating staff-patient interactions during training [67,68].

Evidence has displayed how SBE can improve one's confidence, expertise level, and knowledge in a workplace context [67,68]. These efficient and rapid results are supported by the Theory of Adult Learning [48,49]. This theory supports the proof that adults perform better overall in a SBE training setting compared to lecture-based education due to the participation, stimulation, and engagement occurring within this situational learning. Furthermore, this type of learning format has shown increased ability in students to go teach others on what they learned. This can create a ripple effect of learning [48,49,67,68].

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Conclusion

The literature has shown a disconnect between patients and clinical and non-clinical staff due to a lack of transparent communication [10,11,23,39,66]. Poor communication between behavioral medicine staff and patients has shown to result in greater appointment absenteeism, creating a gap in patients receiving crucial care. Improving staff educational resources to help resolve these obstacles has shown to improve patient absenteeism rates [8,14,63].

The literature also identified issues with new hire training for scheduling personnel [11]. To overcome the traditional educational approach of lecture training, research has shown that new hires would benefit greatly from the implementation of SBE with specific exercises tapered to the department with which they will be associated. This may entail creating SBE curriculum around specific role scenarios commonly displayed by scheduling staff in the target environments [26,71,72].

Per the literature, including examples of consistent obstacles pertaining to behavioral medicine into this SBE would improve the role of schedulers, the rate of No Show appointments, and the confidence of staff. Patients with behavioral medicine-associated symptoms can struggle to make a scheduled appointment with a psychiatrist, psychologist, social worker, or other behavioral medicine resource due to a limited resources and staff,

payer source complications, and adverse personality attributes commonly linked with these patients [73].

The industry of clinical healthcare training already displays an abundant amount of integrated education in simulation and scenario-based formats [74-76]. Examples of this type of education include CPR training on artificial patients, trauma exercise simulation, and situ-simulation of medical staff in real-time environments [77-79]. While the evidence of positive outcomes with scenario-based training has been abundantly observed within clinical roles, it has yet to be expanded upon non-clinical positions to a substantive level [45,46,49]. Research questions one and two of this study dive deeper into this subject for answers. Identifiable abnormalities exist in behavioral medicine that could be improved through upgraded educational practices, but the various types of suitable education in the target context have not been examined in peer-reviewed studies. Research questions one, two, and three were created to discover more about this specialty.

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