Root Cause Analysis of Missed Appointments

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Notes from the Author

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I dedicate this to my daughter Majel Aurora Errante-Wolfe who died the day before I started the DNP program. She is my writer and had planned to assist with the grammar and wording of this project. Unfortunately, she did not get to see what her mother had accomplished. I also dedicate this to my father, who died while working on this project. He did not get to see what his daughter accomplished. The COVID-19 pandemic created tragedy for many of us during this time.

Abstract

Objective: Missed appointments are a global issue, particularly in mental health. Missed appointments cause reduced client outcomes and increased stress on providers. This project is to reduce missed client appointments in a small mental health practice in the US. It is often assumed that clients miss appointments due to a lack of commitment to treatment. Method: In a small mental health practice setting, clients who had missed multiple appointments and would have received a letter of warning or termination were given a survey to find out what barriers were causing it to be challenging to maintain appointments. Then interventions were done to assist these patients/clients and help them keep their appointments, and a second survey was done to assess the interventions. Results: All of the participants who received an intervention maintained their appointments. Conclusion: The participants demonstrate that they are dedicated to treatment but have barriers causing them to miss multiple appointments. Contacting participants to find out the barriers and then assisting in removing those barriers significantly decreased missed appointments. Keywords: missed appointments, mental health, no-show

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Section I. Introduction

Background

Missed medical appointments are an issue globally. The more problematic is when a person does not show at all for an appointment, often called a "no-show" appointment, and when a patient cancels the day of the appointment called "late cancelation". Missed appointments can have an adverse effect on patient outcomes as well as on healthcare providers. Missed appointments have shown an increased risk of mortality and increased risk of comorbidities, including mental health (McQueenie et al., 2019). No-show and late-canceled appointments also affect patients by causing longer waiting lists and long wait times, delaying treatment, and diagnostics (Clough et al., 2017). In addition, missed appointments have been shown to have a negative emotional toll on healthcare providers and inefficient use of staff time (Binnie & Boden, 2016). Globally no-show rates can range from 3% to 80%. This can depend on the country, the type of clinic, and the patient population (Dantas et al., 2018). According to the Veterans Health Administration (Milicevic et al., 2020), no-show rates can range from 10%-60%, depending on the specialty. The highest rates are in mental health. In addition, this creates a high financial cost to the health care systems.

Organizational Needs Statement

Between November 1, 2020, and November 1, 2021 the no-show and late cancelation rate in a small outpatient psychiatric mental health practice was 10%. In March of 2020, the outpatient practice changed from all in-person treatment to all telehealth with a small portion of exceptions due to the COVID-19 pandemic (personal communication, November 1, 2021). In the beginning, the no-show and late cancelation rate had decreased; however, it has increased over time. Even though a 10% no-show and late cancelation rate is on the low end compared to

the literature, it negatively impacts patient outcomes, provider morale, increases the non-reimbursable workload for support staff and providers, and contributes to the healthcare financial burden. According to the office manager (personal communication, November 1, 2021), the practice already utilizes automated reminders the day before the appointment and a text reminder with the telehealth link the day before the appointment. The practice policy (UVMH 2018), utilizes customary punitive measures to try and prevent no-shows and late cancelations. These measures include a fee for missed appointments and a termination policy if too many consecutive no-show appointments or too many missed appointments occur within a specific time frame.

Behavioral health clients are not getting the necessary care they require when they cannot maintain their appointments. Multiple missed appointments reduce client satisfaction with their healthcare and cause an increase in the cost of healthcare for everyone. Based on the Triple Aim Framework (*The Triple Aim*, n.d.), 10% of the clinic's population is not receiving what is needed for quality healthcare, is not having an appropriate client experience, and healthcare costs are not decreasing. This can be mitigating by reducing repetitive no-shows and late cancelation appointments to improve this population's quality of care and treatment outcomes.

Problem Statement

This private psychiatric mental health outpatient practice wanted to find out the causes of the multiple missed appointments and see if there were ways to assist clients in keeping their scheduled appointments. In addition, they wanted to decrease further no-show and late cancellation appointments with a policy and procedure that is not punitive.

Purpose Statement

This DNP project implemented a survey to discover causes for clients' no-shows and late cancelation appointments. This assisted this practice to create non-punitive solutions to help

these patients and clients decrease no-show and late cancelation appointments. Additionally, this can assist other psychiatric, mental health outpatient practices with a similar issue regarding missed appointments.

Section II. Evidence

Literature Review

The literature search was done using the Laupus Health Sciences Library. The filters were set for peer-reviewed articles only and publications within the last five years. The only articles over five years old are articles that were used as reference materials by other articles and are from the original authors, also considered primary source articles. Phrases such as *decreasing no-show appointments* and *decreasing patient missed appointments* were used. Then terms such as *patient care*, *patient safety*, and *patient outcomes* were added to the no-show and missed appointment phrases. Many articles focused on predicting missed appointments and did not apply to this project. The term *predictive* was added as an exclusionary word. The exact phrases and keywords were used with the PsychINFO database to access literature specific to mental health. Melnyk levels of evidence were utilized, and only level VI and above articles were selected.

Current State of Knowledge

It is generally accepted that missed appointments are detrimental to patients and providers. Patients who no-show appointments can result in long wait times, increased mortality rates, increased comorbidities, poor treatment outcomes, poorer levels of health, and exacerbation of symptoms (McQueenie et al., 2019; Clough et al., 2017; Binnie & Boden, 2016). For providers, it can be a demoralizing, costly, inefficient use of staff time, wasted resources, scheduling difficulties, and increased healthcare costs (Milicevic et al., 2020; Parsons et al., 2021; Xiao et al., 2017; Lagman et al., 2021; Clough et al., 2017; Williamson et al., 2017). Globally the average no-show rate is 3-80% depending on the country, type of clinic, and patient population (Dantas et al., 2018). According to the Veterans Administration, it ranges from 10%-

60% depending on the specialty, with mental health at the highest level (Milicevic et al., 2020). Bai and Berg, (2021) found that in the United States, the no-show rate is 20%-40%.

There are many reasons for missed appointments. It has been shown that it can be based on age. Those who are younger are more likely to miss appointments than those who are older (Faiz & Kristoffersen, 2018). Other reasons include forgetting, transportation issues, lack of insurance, weather, socioeconomic background, and long wait times (Zhang et al., 2020; Parsons et al., 2021; Neal et al., 2005). According to Milicevic et al. (2020), the best indicator of whether someone will miss appointments is their attendance history. When it is available, the no-show rate over the previous two-year history can indicate the patient's chance of not showing for a present appointment. Another risk of missed appointments was the length of time between scheduling the appointment and the appointment date and time. Milicevic et al. (2020) found that anything over 60 days increased the chance of a missed appointment. One systematic literature review some attributes of clients who missed appointments included socioeconomic factors, younger adults, place of residence in relation to the clinic, and lack of insurance (Dantas et al., 2018). One study in an endoscopy clinic found that most no-show appointments were due to unforeseen circumstances such as work issues, medical issues such as illness, or other family obligations (Finn et al., 2019).

The themes throughout the literature were forgetfulness and long wait times between scheduling the appointment. One factor that was not addressed frequently in the literature was patients not wanting to see a provider. Patients not wanting to see a particular provider was mentioned indirectly by mentioning certain specialties of providers, usually mental health, having higher no-show appointments compared to other specialties (Milicevic et al., 2020; Xiao et al., 2017). A study was not found regarding mental health clients missing appointments due to

it being a mental health referral by their primary care and the client not agreeing with this. Also not addressed in the studies are clients missing appointments when seeing a mental health provider and deciding they no longer want to see that provider. It is possible that patients might indicate being forgetful of an appointment when there are other reasons behind that statement.

Current Approaches to Solving Population Problem(s)

Many approaches to mitigate no-show appointments have been utilized. Types of interventions used to reduce or handle no-show appointments include overbooking appointments, open access, reminders of appointments, and practice management (Dantas et al., 2018). Open access and overbooking can lead to increased stressors on the provider, less productive time with patients, less patient satisfaction, and require elaborative algorithms and predictive models (Kuo et al., 2020). In mental health, specifically psychotherapy, overbooking is not a plausible strategy. Instead, some type of appointment reminder is often utilized and can effectively reduce no-show appointments. A study in a dermatology practice demonstrated a reduction in no-show rates from 16% to 13.1% when an automated patient reminder system was initiated (Snodgrass & Schoch, 2019). At an endoscopy clinic, the use of a phone call seven days before the scheduled appointment reduced no-show appointments from 16.5% to 12.8% (Childers et al., 2016). And in a psychiatric setting focusing on new patients found that a call within two weeks of the referral to obtain and give basic information and then another call the day prior to the appointment had a 7% reduction in initial no-show appointments (Clouse et al., 2017). One small study found that a telephone call is more effective than a text message (Lance et al., 2021).

Some type of contact with the patient for a reminder of an upcoming appointment has become common in many healthcare practices, whether it is someone calling the patient, an automated phone call, or even a text message can help reduce clients' no-show rates. In all these

studies, there is a reduction in no-show appointments, but there continued to be no-show appointments. One strategy is to contact patients who have frequent no-shows and ask them what occurred to cause the missed appointments and then individualize a plan to assist the patient in keeping their appointment.

Evidence to Support the Intervention

The proposed strategy for this project was to contact patients who have no-showed several appointments to find out why they are missing the appointments. Once the reasons were identified, they were analyzed, and an individual plan was created to help clients keep their appointments. Phone calls, texting, and automated contact demonstrated effectiveness. However, there were still some missed appointments, including no-show appointments. At an endoscopy clinic, Finn et al. (2019) contacted clients who had no-showed appointments. They found that their clients provided reasons for missing appointments that were outside the typical reasons within the literature. Finding out why patients missed appointments and addressing these reasons decreased their no-show rate from 14% to below 10%. Rashid et al. (2021) used a multi-phase strategy to reduce no-show appointments at a psychiatric oncology clinic. The initial phase included contacting patients who were not showing for appointments to determine the reasons and what the patients needed to increase appointment attendance. In the next phase, they created an individualized strategy to help patients keep their appointments. Finally, they assessed the success of the intervention evaluated the strategy. As a result, they were able to increase appointment attendance from 77% to 84%.

In this project's practice setting, reminder calls and reminder texts were already being utilized. And even though punitive strategies such as charging for missed appointments and terminating care have been used, these were not helping patients with their treatment needs.

Also, those clients whose insurance was Medicaid could not be charged for missed appointments due to contractual obligations. In this practice, 45% of the client population insurance was Medicaid. Contacting patients who had not-showed for several appointments and individualizing a reminder strategy and working with clients to maintain future appointments as part of their treatment plan was presumed to be more beneficial than terminating the client.

Evidence-Based Practice Framework

The system and conceptual framework of King's theory of goal attainment was used (I. M. E. King, 2006). I.M.E.King's (2006) theory presented a system framework in that it deals with the interaction of individuals within systems and is a conceptual theory of making decisions and achieving goals. King conceptualized personal, interpersonal, and social systems. In this project, the personal system was the client, the interpersonal system was the providers and staff in the facility, and the social system was the community. King called these interactions between these systems transactions. King's theory focused on attaining the goal through the processes of these transactions between the systems. Its focus was on clients and providers working together to meet the mutual goal, which was the improvement of the client's health.

King's theory of goal attainment listed "observable behaviors which are action, reaction, disturbance, mutual goal setting, means to achieve the goal agreeing on means to achieve the goal and transactions (I. M. King, 1992). Using I.M. King's (1992) list of "observable behaviors" in this project were as follows. The action was an appointment. The reaction was a no-show for the appointment. The disturbance was the problem that occured due to missed appointments. The mutual goal setting is contacting the client to find out what was interfering with keeping appointments. Exploring the means to achieve the goal was working on ways to assist the client in keeping appointments. Working with the client on ways to keep appointments

was agreeing on means to achieve the goal. Hence, the transaction was made, and then evaluated as to whether the goal was met.

Ethical Consideration & Protection of Human Subjects

The subjects in this project were clients at this facility who had no-showed or late canceled enough appointments to be considered for termination from the practice. Their identifying information was protected. Other means of identification was utilized to protect and maintain their confidentiality. No invasive medical procedures were used in this project. Verbal permission was obtained since the client contact was primarily conducted by telephone and telehealth appointments. The survey design allowed clients to express themselves openly without judgment or negative repercussions based on their answers. Staff administering the survey were trained to accept all answers without judgment.

CITI modules were completed and followed in this project design. All University and Medical Center IRB criteria were followed. The project did not require IRB approval as it was deemed quality improvement.

Section III. Project Design

Project Site and Population

The site of this project was a small private psychiatric mental health practice. It offers outpatient services for a variety of psychiatric, mental health diagnoses. All the providers and staff were supportive of the project. A primary barrier to project success was the risk that clients would not reply when contacted or that they would decline participation. This posed a possible limitation on an already small number of participants.

Description of the Setting

As previously mentioned, the setting was a small private psychiatric mental health outpatient practice that had four therapists, two nurse practitioners, one office manager, and two support staff. The survey was presented to clients who had missed enough appointments to receive a warning or termination letter as per the criteria of the current policy.

Description of the Population

The age of the client population at this outpatient practice was between the ages of 3 years old to 85 years old. In the case of clients below the age of 18, the survey was presented to the parents. The survey was given to all clients who met the criteria, regardless of diagnosis. The current policy and procedure is found in Appendix A.

Project Team

The project team consisted of the project leader, project faculty advisor, project site champion, and the support staff at the project site.

Project Goals and Outcome Measures

A survey with two open-ended questions gathered information related to missed appointments. The focus was clients with no show and late cancelation appointments. The

responses were analyzed into common themes to find client-reported reasons or barriers for frequently missing appointments. When client responses were collected, solutions for interventions were assessed and implemented. Follow-up data was collected, providing a way to evaluate the benefit of the individualized interventions in helping clients keep their appointments.

Clients who had frequently missed appointments and were at risk to receive a warning or termination letter were contacted. Clients were asked to provide verbal consent, prior to participation. The verbal consent was then documented. No identifying information was documented for this project. When consent was received, the survey questions were asked, and the answers documented. After review of the clients' responses, the solutions and interventions were proposed, implemented, and documented. Data was collected. Refer to Appendix B for the survey questions utilized for missed appointments and follow-up.

Description of the Methods and Measurement

This was a descriptive, qualitative improvement project using convenience sampling. Each of the themes for frequently missed appointments was assigned a code utilizing nominal data. The nominal data was used to find the most common themes and reasons for frequently missed appointments. As these themes were found, strategies were developed and used to avert missing appointments. The strategies used were documented and the information was collected and evaluated. The data was simple- "Did the client keep their appointment or continue to miss their follow-up appointment"?

Discussion of the Data Collection Process

Clients who were at risk of receiving a warning or termination letter were contacted by support staff seeking clients' permission to participate in the survey in lieu of the warning or

termination letter. The survey questions were asked, and the client continued scheduling an appointment. The responses to the survey questions were documented and analyzed for themes of client-perceived causes for missed appointments. Once the themes were analyzed, strategies were put in place to help the client keep the next appointment. The strategy used and the result were recorded.

Implementation Plan

Once implementation began, all clients who met the criteria were contacted, consented, and presented with the survey. Clients were made aware that their answers would not be recorded with any identifying information, but that the responses were simply part of the aggregated data collection and analysis. They were then asked the survey questions, and their responses were documented. At the end of the implementation period, the data was analyzed for recurring reasons for missed appointments. As these reoccurring reasons were documented a strategy was created that addressed each client's individual responses. The strategy was implemented to mitigate the missed appointments, and the project lead recorded the outcomes of appointment attendance.

Timeline

The project survey began on January 15, 2022 and ended on April 15, 2022. Data was analyzed and strategies developed and implemented throughout the timeframe. Data collection extended through June 14, 2022, due to some appointment scheduling until this date.

Section IV. Results and Findings

Results

Data for January 15, 2021, to April 15, 2021, were collected and analyzed to establish the current state prior to project implementation. During the data review it was noted that for the review period there were 337 missed appointments out of 4,174 total appointments. Missed appointments made up 8% of the total appointments. Twenty clients (6% of the clients missing appointments) met the criteria of multiple missed appointments and letters of warning or termination from treatment were provided. During the same quarter for 2022, the project was implemented. Between January 15, 2022, to April 15, 2022, there are 241 missed appointments of 3,950 total encounters. This indicated a missed appointment rate drop from 8% in 2021 to 6% in 2022. There were 24 clients, or 10% of those with missed appointments, that met criteria for a warning or termination letter. This was an increase of four percentage points from the previous year.

Sixteen surveys were completed in leu of the warning or termination letter. One survey was not conducted due to support staff being unable to make contact. In addition, seven letters were sent out in error. Of the sixteen completed surveys, two clients stated they did not feel they needed anything different than was already being done to remind them of their appointments. Four clients stated they plan to make sure the appointments are placed in their own calendars. Three clients requested not to continue appointments via telehealth, instead attending appointments in-person. However, the practice had not returned to in-person appointments, citing COVID-19 positivity rates as the issue, and were waiting on epidemiology reports of COVID-19 in the area to reach safe levels. As a point of transparency, the practice did allow in-person sessions on a limited case-by-case basis. Six clients requested an extra reminder one hour

prior to the appointment. A reminder note was set in the electronic health record so that the support staff would know what clients were to receive a reminder call or text (client's preference) one hour prior to the appointment. This was not followed for the first two clients who were to receive a reminder call or text an hour prior to their appointment. One client did show up for their appointment, and the other client did not show up for their appointment without the extra reminder contact. This was corrected and a reminder call or text one hour prior to the appointments did occur for the following appointments. One client stated that they missed appointments due to occurrence of break-through signs and symptoms. The provider planned to discuss this issue at the next appointment and to remind the client to tell the provider when there are break-through symptoms so they can be treated appropriately. All sixteen surveyed clients kept their follow-up appointments.

Discussion of Major Findings

When the protocol was applied, there was a substantial increase in clients keeping their follow-up appointments. 100% of those surveyed and for whom an individualized intervention was created kept their follow-up appointments. The two responding to the survey stating they did not need an individualized intervention also kept their appointments. However, the sample size is very small with only sixteen clients receiving a survey. Even with this small sample size clients missing multiple appointments went from 10% to 3 %. That 3% is reduced to 0.4% when it is considered that the 3% includes those who were not given the survey and were inadvertently sent a warning or termination letter.

Section V. Interpretation and Implications

Costs and Resource Management

Initially, it was demonstrated that the cost and resources needed would be negligible. It was concluded that the paper and time required to conduct the survey was no different than the cost and time to create and send the warning or termination letters. What did occur is support staff found it easier to fall back on the old policy, which became an unforeseen barrier. This unexpected barrier occurred due to an unanticipated decrease in support staff during the implementation period. There were some added costs and increased management requirements during the follow-up and intervention stages. These costs were intangibles for which the specific value is difficult to quantify. Planning for in-person sessions during the pandemic caused an increase in support staff time to clean the lobby and office areas. It also created costs for supplies such as cleaning products and masks. This would not be an issue during typical operations of the practice. The support staff reported that adding an extra reminder call or text one hour prior to the appointment was easy to forget and time-consuming in an already busy workplace that ended up being understaffed. During the implementation portion of the project, there were unforeseen barriers that led to the implementation protocol not being completely followed. Due to the COVID-19 pandemic, support staff were exposed to the virus and tested positive. As a result, there were days when only one support staff was working. It was realized near the end of implementation that the electronic health record could be set up to do the added reminders to clients at no additional cost. This added electronic reminder relieved the support staff from having to make extra reminder calls or texts for those clients who had requested a text or call one hour prior to their appointment. Total revenue loss of 1 appointment by the 24 clients

who met criteria for the project was $9600. The total revenue gained by those 24 clients keeping their appointment is $2870 (Appendix C).

Even though the sample size is small, finding out why clients are missing multiple appointments and working on solutions to mitigate this did result in clients keeping their follow-up appointments. The increase in clients attending their appointments increased the practice revenue and hence offsets the small amount of increased costs. In addition, the primary area of increased cost was the support staff making an extra reminder contact to clients. This cost was eliminated when it was realized that it can be done by the electronic health record program.

Implications of the Findings

Why clients miss appointments is not always known. It can be considered that clients have diagnose and disabilities that contribute to the missed appointments. One area of concern is clients with hearing or sight impairments. They have greater barriers than clients without these sensory disabilities. It is not unusual to hear providers make comments such as it is up to the client to keep their appointments even when they have barriers, or how clients keeping appointments is a way to determine their commitment to treatment. However, this can be considered ableist because clients' barriers and unique situations are not being considered nor the assistance to finding solutions to overcome these barriers being given.

Implications for Patients

Overall, the implementation of the survey and working with clients on ways to help them maintain their follow-up appointments was helpful to all the clients given the survey; changes were made to assist clients in keeping their appointments. Clients have diverse barriers requiring assistance in finding unique solutions. The clients, with only one exception, demonstrated a desire to keep their appointments and receive treatment. Able-bodied providers

might not appreciate or be aware of clients' barriers to attending follow-up appointments if clients are not asked.

Implications for Nursing Practice

When clients do not keep their appointments, they do not receive the treatment they need, which places them at risk. This project is one solution that can engage nurses to help clients maintain their treatment plans. Further, the project can give nurses some insight into what is occurring in the client's life that proves to be a barrier to their treatment. An aspect of nursing care is to be an advocate. One cannot advocate for a client if it is not known what issues or barriers the client is navigating.

Impact for Healthcare System(s)

Missed appointments are costly to the healthcare system. Attending follow-up appointments and maintaining treatment regimens can help decrease those costs by reducing the occurrence of multiple missed appointments resulted in avoidable sequalae. When multiple appointments are missed, and especially if the client is terminated from the practice, treatment is missed or delayed, placing the client at increased risk for expensive hospitalization. The personal costs for the client are mental and emotional distress, and financial burdens.

Sustainability

The number of clients who met the criteria for warning or termination letters was already small. This implementation protocol increased appointments attended by 100% of the clients who received the survey. However, sustainability has some barriers. Providers need to be entirely on board for this solution to work. Providers themselves create barriers by declining to have clients contacted by the support staff. Another provider-driven barrier is when the provider believes that only clients unwilling to receive treatments incur missed appointments. This

perception creates an environment where solution-based interventions are unsustainable. This solution-focused intervention requires there to be enough support staff to do the survey and follow-up with the clients' needed interventions. If a facility is understaffed this will likely be process cut from the daily workflow. When these barriers are overcome, this project is sustainable and assistive for clients. An example of overcoming a support staff staffing barrier is when it was discovered that the electronic health record in place was already designed to do added reminder calls or texts to clients.

Dissemination Plan

This project will be presented at East Carolina University College of Nursing on July 12, 2022. The formal project report will be published to The ScholarShip, the university's online repository for graduate and professional work. There are no other plans for the dissemination of this project.

Section VI. Conclusion

Limitations and Facilitators

The number of clients with multiple missed appointments is small for this practice, resulting in a small sample size. This was further reduced when only 16 out of 24 eligible clients completed the surveys. A significant barrier that caused the reduced number of surveys being administered was that not all providers were engaged with the project though they did not vocalize this during the preparation meetings prior to implementation. These providers eventually stated that clients missing multiple appointments were seen as non-committed to care; hence, not worth the provider's time. It was demonstrated that this was not the case and that committed clients need assistance in alleviating their barriers to attend appointments and receive needed healthcare.

Recommendations for Others

This author recommends longer preparation time to ensure that all providers and support staff understand the need to decrease missed appointments and the benefits for all stakeholders – clients, providers, practice, and the healthcare system at-large. More information regarding clients' barriers and the associated repercussions to well-being needs to be available for providers and support staff. Improved understanding may help healthcare personnel as they work with clients navigating diverse barriers to care, including appointment attendance. This requires that clients have the opportunity to identify their barriers and collaborate on meaningful solutions. The system of care must present this information in such a way as to offset the belief that the responsibility for treatment rests solely with the client. Shared responsibility, strong advocacy, and collaborative care concepts will assist clients to overcome their barriers.

Recommendations Further Study

Multiple missed appointments are an issue in all outpatient settings that might lead to warning letters perceived by clients as threats. This perception might reduce the therapeutic communication between clients and providers. It can also lead to the termination of the client, causing them delays in receiving the care they need. Further research or projects delving into why clients miss multiple appointments is needed so that solutions can be found to help clients receive necessary care. Clients can have many barriers for which providers and support staff are not aware. During this project it was found that clients with sight or hearing impairments have barriers with telehealth equipment. Clients with sight impairment have difficulty with paperwork. And client confidentiality is at-risk for those with sight or hearing impairment, simply due to some interventions and where those interventions are employed within the practice setting. This might be especially at risk in a mental health setting when these barriers are not addressed.

Final Thoughts

Missed-client appointments can have detrimental effects on several levels. First, the impact on the healthcare system is that facilities do not obtain the revenue they need to function. The missed appointment slots cannot be offered to others needing care, potentially delaying care for other individuals. This leads to subpar mental health care for the client missing the appointment and the client who would have attended the appointment if it had been available to them. This results in systemic reduced treatment and poor client outcomes. When the client returns to care after many missed appointments, they are often in crisis, which could have been prevented. Providers of mental health services might be at risk when on-call services are necessary, often the result of missed appointments. Even with appointment reminders, clients miss appointments

to the point of being sent a warning letter or being terminated from care. This does not help the client, increasing the risk of poor outcomes, and costly care, including hospitalization. This project was to establish an understanding of some of the reasons that clients miss multiple appointments and find feasible solutions to assist the client in maintaining their appointment schedules and treatment regimens to improve client outcomes.

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Appendices

Appendix A

Policy: No shows, Late Cancellations, and Late reschedules

Scope: This procedure applies to all providers / support staff

Purpose: When a patient/client misses an appointment without canceling 24 hours ahead this places an undue burden to patients/clients on the cancelation list. It causes those seeking treatment on the cancelation list to wait longer than necessary and delays their treatment.

Procedure:

1. As a courtesy all patients/clients will receive a reminder of their upcoming appointment. This will be either a text or call based on their preference. It is automated within the Valant EMR. It is ultimately the responsibility of the patient/client to keep their scheduled appointment.
2. If a client/patient arrives 10 minutes late for a scheduled appointment: NPs: they will be considered a late cancelation and will have to reschedule. Therapists: ask first if they can continue to see the client for a shorter session.
3. After a no show a letter of warning and reminder of the policy will be sent to the patient/client. If the next appointment is also a no show they will be terminated.
4. After 2 consecutive late cancelations, late reschedule or combination a letter of warning will be sent. If there is another within 6 months, the patient/client will be terminated.
5. If there are 3 missed appointments of any mix of no show, late cancelation, and late reschedule within 6 months a warning letter will be sent. On the 4th no show, late cancelation, or late reschedule the client/patient will be terminated.
6. Nurse Practitioner and Psychotherapist missed appointments are counted separately. A patient/client can be terminated from 1 provider's service and continue with another.
7. All providers can make an arrangement with their patients/clients that allow more leeway due to their circumstances.
8. Support staff has some leeway to excuse a now show or late cancellation, i.e.: client/patient was in a motor vehicle accident that day.
9. Warning letters will be sent out automatically. Providers must sign the termination letter.
10. There will be a $65 fee for all medical psychiatric no shows, late cancellations and late reschedules. There will be a $80 fee for all psychotherapist no shows, late cancelations and late reschedules.
11. A warning letter must be sent out prior to there being a termination of services.

Appendix B

Survey Form for Missed Appointments

Date:_____ Time Start:_____ Time complete:_____

Gender:_____ Race_____ Age_____ Parent answered for pt/ct:_____

1) Obtain verbal consent and inform the patent/client any identifying information will not be used for the project.
   Patient/Client gives consent: _____
   Patient/client declines and does not give consent: _____

2) Ask the patient/client if there are any particular issues or reasons that make it difficult to keep their appointments. Tell them there are no wrong answers and more than one answer is ok as well. Also mention that whatever their answer is no one will be offended or upset by their answer.

   Document their answer:

3) Ask the patient/client if they have any ideas of what might help them in keeping their appointments. Remind them all answers are valid however, not all suggestions will be enacted but will give us information to better assist them.

   Document their answer.:

Thank them for helping us with answering these questions and continue with making their future appointment. We will inform them if our policy has any changes regarding missed appointments based on the information collected.

Follow Up Results of Survey Form

Identifier _____

Was anything changed to help client/patient keep their next appointment? If so, what?

Did client/paint keep their next appointment after the intervention?

Appendix C

Budget

Support staff average = $5/15min

Providers average = $90/15 min

Reminder calls automated = $0

Warning/Termination procedure

Average time for support staff to make calls and do paperwork = 30 min = $10

Provider average paperwork time for entire process = 45 min = $270

Loss with 1 appointment missed by 24 clients

Support staff $10 x 24 = $240

Provider $300 x 24 = $6480

Revenue loss $120 x 24 = $2880

Total revenue lost = $9600

Implementation

Support staff survey and intervention = 30 min = $10

Provider added time to standard workday = 0

Revenue gained from appointments kept $120 x 24 = $2880

Total revenue gained $2880 - $10 = $2870

Appendix D

Root Cause Analysis of Missed Appointments Project Implementation Summary Report

Project Goal

This DNP project aims to reduce no-shows and late canceled appointments in a small psychiatric mental health outpatient practice. To accomplish this, a survey was administered to those clients/patients who would have received a warning letter or a termination letter due to no-show or late canceled appointments based on the current policy. The survey is designed to find causes and possible interventions to help clients/patients maintain their appointments. Then the intervention is to be administered to prevent missing appointments. This benefits the client/patient, so they receive the treatment they need. In addition, it benefits the providers so that they can give the treatment the clients/patients need and decrease revenue loss. Finally, it helps the organization reduce the cost of missed appointments and reduce the loss of revenue due to missed appointments.

Accomplishments of the Project

This DNP project decreased missed appointments by 89% by April 20th, 2022. There is still data to collect on six more clients/patients. It is not entirely certain if it accomplished this by contacting clients/patients rather than a letter of warning or the interventions alone. The intervention was not done with one patient, and they still kept their next appointment. It increased clients/patients keeping their appointments and, hence, decreased missed appointments by those who frequently missed appointments. Reducing the no-show and late cancelation appointments benefits clients/patients, providers, and the organization. The primary goal of the DNP project was accomplished.

Appendix E

DNP Project Poster

PROJECT – Root Cause Analysis of Missed Appointments

Implications

- Find why there are frequently missed appointments
- Assist in finding and using non-punitive solutions for clients to keep appointments

Background

Missed appointments:

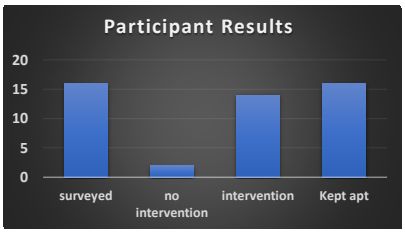
- globally no-show rates are 3-80%
- can have a negative effect on client outcomes
- financial strain on the healthcare system
- higher rates in the mental health population
- assumed to be clients not vested in treatment
- ways to control are often punitive

Process

- Participants were clients who would have received a warning or termination letter
- Survey given asking reasons for missed appointments
- Intervention designed based on survey information
- Follow up survey on results of the intervention

Results

- Total 24 clients met criteria
- 7 received warning or termination letters
- 1 could not be contacted
- 16 were given the survey
  - 3 returned to face-to-face sessions
  - 6 were contacted 1 hour prior to appointments
  - 4 assisted to manage their appointments on their personal calendars
  - 1 required symptom management, scheduled earlier in day, and contacted 1 hour prior to appointment
  - 2 had no extra intervention
- Of the 16 given the survey 100% kept their follow-up appointments



Purpose

- Clients invested in treatment but have barriers to keeping appointments
- Knowing what intervention will work requires knowing what the barriers are
- Clients keep their appointments when they are assisted in removing the barriers
- Clients have better outcomes when appointments are kept
- Decreases the financial strain and reduces financial loss related to missed appointments

Barriers

- Not all providers were on board with the changes during implementation though all stated they were during meetings prior to implementation
- This caused 7 clients to be given warning or termination letters
- One provider felt it overrode their ability to chose to not see a client for other reasons

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