Reducing Missed Psychotherapy Appointments at Urban Community Health Centers

Margaret K. Boyle, MSN, ARNP, NP-C, PMHNP-BC; Jessica Schwinck, DNP, ARNP, FNP-BC
Pacific Lutheran University

Introduction

Despite ongoing efforts toward the goals of health care reform goals, annual health care expenditures in the United States reached $3.8 trillion[1] in 2019 as life expectancy declined.[2] Missed appointments, including client no-shows and appointments canceled with less than 24 hours' notice (late cancellations), pose significant challenges to the health care system. Such appointment failures contribute to the inefficient use of resources as they cost $150 billion annually,[3] delay treatment,[4] and result in worse health outcomes.[5] Rates of missed appointments vary widely depending on specialty and setting,[6] span 5% to 55% in primary care,[7] and are nearly twice as high in behavioral health (BH) clinics.[8]

Appointment adherence rates provide objective measurement of client engagement. Engagement refers to the active participation and collaboration of clients, professionals, and all individuals involved in the treatment process.[9] Successful engagement in BH treatment relies on a strong therapeutic alliance to support ongoing treatment participation, enabling clients to pursue their recovery and wellness goals.[10] Increasing motivation, specifically intrinsic motivation, is an effective strategy to improve client engagement and appointment attendance.[11] Interventions using Motivational Interviewing (MI) techniques can facilitate intrinsic motivation, increase engagement, and improve appointment attendance.[12] The most effective evidence-based practice (EBP) interventions to reduce missed appointments involve a combination or bundled approach.[13-15]

Methods

This quality improvement (QI) project investigated the effect of a Psychiatric Mental Health Nurse Practitioner (PMHNP)-led telephone orientation protocol (TOP) on adult psychotherapy appointment attendance in two urban community outpatient BH clinics located in the Pacific Northwest. The goal of this project was to reduce missed appointment rates by improving client attendance behavior early in the treatment process.

The Transtheoretical Model of Change and Self-Determination Theory provided the theoretical framework. A quasi-experimental design was used. A convenience sample of new and returning adult clients aged 18 years of age and older engaging in BH services comprised the study population. English-speaking clients who enrolled in psychotherapy services during the fall of 2020 were included.

Clinic schedules were examined daily to identify potential participants. Participants were contacted via telephone up to three times to obtain verbal consent and conduct the TOP. A twelve-step flowchart (table 1) was used during each TOP intervention. Participant demographic and appointment data was collected from the electronic health record system.

Table 1. Telephone Orientation Protocol (TOP) Flowchart.

Action	Rationale
1. Welcome participant to clinic and express staff's interest in facilitating treatment goals.	1. Promotes respectful client-centered care. Initiates therapeutic rapport.
2. Explain QI project and obtain verbal consent.	2. Upholds ethical responsibilities.
3. Discuss clinic attendance expectations, policy, and consequences of missed appointments.	3. Informs participants of clinic expectations. Sets ground rules.
4. Discuss appointment cancellation and rescheduling procedures.	4. Informs participants of clinic procedures.
5. Provide psychoeducation regarding client engagement.	5. Educates participants regarding the treatment process.
6. Obtain verbal acknowledgement of policy.	6. Acknowledges participant's understanding.
7. Advise participant a paper copy of the policy will be mailed to their residence.	7. Reinforces participant's understanding.
8. Use MI techniques to explore treatment goals, identify potential barriers to engagement, and encourage participants to search for possible solutions.	8. Attempts to explore and resolve ambivalence. Strives to increase intrinsic motivation. Increases therapeutic rapport.
9. Use MI techniques to investigate the participant's motivation and readiness for change. Allow participants to decide for themselves whether or not to change.	9. Attempts to explore and resolve ambivalence. Strives to increase intrinsic motivation. Increases therapeutic rapport.
10. Verify participant's next scheduled psychotherapy appointment, remind to call at least 24 hours in advance to cancel or reschedule.	10. Reminds participant of appointment, reinforces policies and procedures.
11. Thank participant for their time and participation. Reiterate staff's interest in facilitating their treatment goals.	11. Respectfully terminates intervention and offers time for debriefing. Increases therapeutic rapport.
12. Ask participant if they have any questions. Connect participant to appropriate staff as needed.	12. Allows time for debriefing and assists with any concerns participant may have.

Results

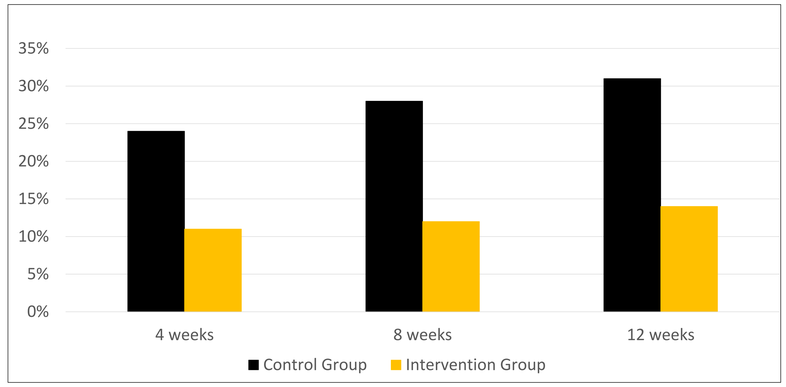
90 individuals comprised the final sample, with 45 participants in each of the intervention and control groups. The average age of participants in years was 36.77 (*SD* = 13.41). More females (63.33%) participated in the study compared to males (33.33%) and nonbinary individuals (3.33%). Most participants were white not Hispanic or Latino (58.89%), single (47.78%), housed (93.33%), and unemployed (56.67%). Nearly all participants had state-funded insurance (61.11%) or were uninsured (24.44%). The average TOP duration in minutes was 8.54 (*SD* = 3.70, Min = 2.13, Max = 16.73). Missed appointment rates were calculated for the control and intervention groups. Independent samples t-tests were significant at 4, 8, and twelve weeks when comparing missed appointment rates between the two groups.

Table 2. Two-Tailed Independent Samples t-test for Missed Appointment Rate.

	Comparison Group (*n* = 45)		Intervention Group (*n* = 45)				
Missed Appointment Rate	*M*	*SD*	*M*	*SD*	*t*	*p*	*d*
4 Weeks	0.24	0.31	0.11	0.18	2.44	*0.017	0.51
8 Weeks	0.28	0.27	0.12	0.17	3.50	***<0.001	0.74
12 Weeks	0.31	0.26	0.14	0.18	3.75	***<0.001	0.79

Note. $N = 90$. $p^* < .05$. $p^{***} < .001$. *d* represents Cohen's *d*.

Figure 1. Missed Appointment Rate by Group.



Discussion

The TOP intervention significantly reduced the missed appointment rate by 55% over the twelve-week study period by improving client attendance behavior early in the treatment engagement process. Consistent with previous studies, the TOP used a bundled approach[13-15] where the EBP interventions of reviewing the appointment attendance policy,[13] providing psychoeducation regarding client engagement,[13] MI techniques,[16,17] and appointment reminders[13] were combined to effectively increase psychotherapy appointment attendance rates in two urban community outpatient BH clinics.

MI is an effective method of fostering change across a variety of health behaviors by activating a client's intrinsic motivation,[12] and this study successfully targeted appointment attendance behavior early in the treatment process. Project results can be used to inform clinical practice. The minimal training required to conduct the intervention and the brief duration of the TOP indicate it could easily be replicated by other clinic staff and not significantly impact normal clinic operations. The TOP could readily become clinic policy and procedure during orientation to increase client engagement, appointment attendance, and clinician productivity.

Study findings add to the knowledge base of motivation and treatment engagement. Project results further support the importance of MI training in nursing education as EBP. Future studies are needed and could investigate the effect of similar protocols in populations including pediatrics, adolescents, and clients being discharged from inpatient or correctional settings.

PMHNPs strive to create and nurture strong therapeutic alliances with clients to reach treatment goals, and are well-suited to employ MI techniques during the orientation process to increase intrinsic motivation and improve client engagement in the BH setting. Decreasing missed appointments will reduce costs, increase access to services, improve client outcomes, and ultimately boost efficiency within the entire health care system.

Contact

Margaret K. Boyle, MSN, ARNP
Pacific Lutheran University
12180 Park Ave S
Tacoma, WA 98447
boylemk@plu.edu

References

1. Centers for Medicare & Medicaid Services (2020). National health expenditure data: Historical. Retrieved from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical
2. Woolf, S. H., & Schoomaker, H. (2019). Life expectancy and mortality rates in the United States, 1959-2017. *JAMA, 322*(20), 1996-2016. doi:10.1001/jama.2019.16932
3. Gier, J. (2017). Missed appointments cost the U.S. healthcare system $150B each year. *Healthcare Innovation.* Retrieved from https://www.scisolutions.com/uploads/news/Missed-Appts-Cost-HMT-Article-042617.pdf
4. Mohammadi, I., Wu, H., Turkcan, A., Toscos, T., & Doebbeling, B. N. (2018). Data analytics and modeling for appointment no-show in community health centers. *Journal of Primary Care & Community Health, 9*, 1-11. doi: 10.1177/2150132718811692
5. Nguyen, D. L., DeJesus, R. S., & Wieland, M. L. (2011). Missed appointments in resident continuity clinic: Patient characteristics and health care outcomes. *Journal of Graduate Medical Education, 3*(3), 350-355.
6. Rust, C. T., Gallups, N. H., Clark, W. S., Jones, D. S., & Wilcox, W. D. (1995). Patient appointment failures in pediatric resident continuity clinics. *Archives of Pediatric Adolescent Medicine, 149*, 693-695.
7. George, A., & Rubin, G. (2003). Non-attendance in general practice: a systematic review and its implications for access to primary health care. *Family Practice, 20*(2): 178-84. doi: 10.1093/fampra/20.2.178. PMID: 12651793
8. Mitchell, A. J., & Selmes, T. (2007). Why don't patients attend their appointments? Maintaining engagement with psychiatric services. *Advances in Psychiatric Treatment, 13*, 423–434. doi: 10.1192/apt.bp.106.003202
9. Carman, K. L., Dardess, P., Maurer, M., Sofaer, S., Adams, K., Bechtel, C., & Sweeney, J. (2013). Patient and family engagement: A framework for understanding the elements and developing interventions and policies. *Health Affairs, 32*(2), 223-231. doi:10.1377/hlthaff.2012.1133
10. National Alliance on Mental Illness (2016). Engagement. A new standard for mental health care. Retrieved from https://www.nami.org/Support-Education/Publications-Reports/Public- Policy-Reports/Engagement-A-New-Standard-for-Mental-Health-Care/NAMI_Engagement_Web
11. Lawrence, P., Fulbrook, P., Somerset, S., & Schulz, P. (2017). Motivational interviewing to enhance treatment attendance in mental health settings: A systematic review and meta-analysis. *Journal of Psychiatric Mental Health Nursing*, 1-20. doi:10.1111/jpm.12420
12. Rollnick, S., Miller, W. R., & Butler, C. C. (2008). *Motivational interviewing in health care: Helping patients change behavior*. New York, NY: The Guilford Press.
13. Gandy, J., Sawin, E. M., Zook, S., & Eggert, L. (2019). Improving adherence to mental health treatment in a low-income clinic. *SAGE Open*. doi:10.1177/2158244019851015
14. Marbouh, D., Khaleel, I., Al Shanqiti, K., Al Tamimi, M., Simsekler, M. C. E., Ellahham, S.,...Alibazoglu, H. (2020). Evaluating the impact of patient no-shows on service quality. *Risk Management and Healthcare Policy, 13*: 509-517 https://doi.org/10.2147/RMHPS232114
15. Molfenter, T. (2013). Reducing appointment no-shows: Going from theory to Practice. *Substance Use & Misuse, 48*(9), 743-749. doi:10.3109/10826084.2013.787098.
16. Chiappetta, L., Stark, S., Mahmoud, K. F., Bahnsen, R., & Mitchell, A. M. (2018). Motivational interviewing to increase outpatient attendance for adolescent psychiatric patients. *Journal of Psychosocial Nursing, 56*, 31-35. doi:10.3928/02793695-20180212-04
17. Pantalon, M., Murphy, M. K., Barry, D. T., Lavery, M, Swanson, A. J. (2014). Predictors and moderators of aftercare appointment-keeping following brief motivational interviewing among patients with psychiatric disorders or dual diagnosis. *Journal of Dual Diagnosis, 10*(1), 44-51. https://doi.org/10.1080/15504263.2013.867785