PATIENT-CENTERED APPOINTMENT REMINDER INTERVENTION

Evidence-Informed Structural Intervention
Evidence-Informed for Engagement in HIV Care

INTERVENTION DESCRIPTION

Goals of Intervention
- Increase engagement in HIV care

Intended Population
- Urban clinic patients with HIV

Brief Description

The Patient-Centered Appointment Reminder Intervention is designed to decrease the number of missed appointments. Prior to the intervention, patients had the choice of receiving appointment reminders via phone or e-mail. Appointment reminders, based on patients' preference, are made 2 weeks before, and within 24-48 hours of the scheduled appointment. The intervention includes a risk-stratified protocol developed and implemented to identify patients at risk for missing the next appointment. Patients at medium risk for missing their next appointment receive a pre-visit planning call from an assigned case manager. The case manager attempts to reach the patient via phone to provide a reminder about the appointment, identify and remove barriers to appointments (e.g., transportation and insurance issues) or offer incentives (e.g., gift card for food, bus pass, etc.). If the patient was not reached by phone, attempts are made to reach patient by text or e-mail. Patients at high risk for missing appointments receive a home visit by the patient-peer navigator who is a person with HIV and trained on motivational interviewing and peer support. The peer navigator uses a questionnaire to assess reasons for chronically missing appointments and offers a same-day medical appointment which includes transportation incentives. All no-show patients are contacted by clinic staff (i.e., physician/medical assistant, administrative director) within 24 hours of a missed appointment to reschedule and discuss barriers to appointment attendance. These cases are then referred to the case manager for mitigation.

Theoretical Basis
- Johns Hopkins Nursing Evidence-Based Practice Model

Intervention Duration
- Ongoing

Intervention Settings
- Patient's residence (for home visits)
- Phone (for reminders)
- Urban Ryan White Park C HIV clin

Deliverers
- Case manager
- Clinic staff (i.e., physician/medical assistant, administrator director)
- Patient-peer navigator

Delivery Methods
- Case management
- Emails
- Home visits
- Peer-based navigation
- Phone calls
- Text messages

Structural Components
- Access – HIV medical care
  - Increased access to HIV medical care by addressing barriers to appointments (e.g., addressing transportation/insurance issues and offering incentives for food or transportation)
- Capacity building—Technology
  - Added text message reminder service to options for patient-centered appointment reminders
- Policy/Procedure – Institutional policy/procedure
  - Developed and implemented text message appointment reminder service
  - Designed and implemented a protocol to assess risk of missing the next appointment, based on the attendance at the last scheduled appointment, current CD4 count, medication adherence, prior antiretroviral (ART) use, history of ART failure, history of substance abuse, and recent viral load
  - Implemented pre-visit planning phone calls for patients at medium-risk for missing the next appointment, and home visits for patients at high-risk for missing the next appointment
- Social Determinants of Health—Survival
  - Reduced barriers to appointment keeping by offering incentives (i.e., gift cards) for food, addressing insurance issues and transportation issues through provision of bus passes, taxi-cab vouchers, or money for shared ride services

INTERVENTION PACKAGE INFORMATION

An intervention package is not available at this time. Please contact **Judith Ann Adams**, Outpatient Education, Allegheny Health Network, 4900 Friendship Avenue, Pittsburgh, PA 15224.

Email: judy.adams@ahn.org for details on intervention materials.

EVALUATION STUDY AND RESULTS

Study Location Information
The original evaluation study was conducted in southwestern Pennsylvania between January and May 2017.

Key Intervention Effects
- Increased engagement in HIV care (as measured by a decrease in no-show appointments)

Study Sample
The post-intervention cohort included 1,653 HIV clinic patients. Characteristics of the study participants were not reported.

Recruitment Settings
- Ryan White Part C HIV Clinic

Eligibility Criteria
Participants were eligible if they were 18 years or older and current clinic patients.

Comparison
The study used a pre-post design with a historical comparison. Data from the post-intervention cohort of patients with clinic appointments from January to May 2017 (n = 1,653) were compared to data from the pre-intervention cohort of patients with clinic appointments from January to May 2016 (n = 1,648).

Relevant Outcomes Measured
- Engagement in care was measured as the percentage of no-show appointments
    - No-show appointments were defined as a missed regularly scheduled appointment (i.e., return or follow-up visits) without advance notification.
    - Monthly rates of no-show appointments were calculated as the ratio of no-show appointments to the total number of scheduled appointments.

Participant Retention
Retention was not reported. The PRS Project does not evaluate participant retention for the Linkage to, Retention, and Re-engagement in HIV Care chapter.

Significant Findings on Relevant Outcomes
- There was a significant decrease of 3.8% in the no-show rate in the post-intervention cohort compared to the pre-intervention cohort (30.3% vs. 26.5%, p = 0.023).*

Strengths
- None identified

Considerations
Additional significant positive findings on non-relevant outcomes
- None reported

Non-significant findings on relevant outcomes
- None reported

Negative findings
- None reported

Other related findings
- There was a slight decrease in the percentage of appointment attendance from pre to post (52.9% vs. 52.5%).

- There was an increase in the percentage of rescheduled canceled appointments from pre to post (44% vs. 54%).*
- A total of 687 patient charts were reviewed for risk stratification:
    - 79% (n = 544) were assessed as being low risk for missing their next appointment
    - 19% (n = 130) were identified at medium risk
        - Only 57% (n = 74) of medium-risk patients received the planned pre-visit (PVP) call as required by the protocol.
        - Medium-risk patients who received the PVP call (n = 36) including a caring conversation and verbal reminder (n = 21), incentives (n = 5), or transportation (n = 10) had a 31% (n = 11) no show rate as compared to 58% (n = 34) no show rate for those who did not receive a PVP call or only a voicemail (n = 28).
        - Voicemail reminders for medium-risk patients were associated with the highest (68%, n = 19) no-show rate.
    - 2% (n = 12) were considered high risk
        - Patient-peer navigator completed 10 home visits, resulting in 2 same or next-day appointments.
        - All 12 patients identified for home visits completed an appointment within the project period although 2 did not receive home visits.

Implementation-research related findings

- None reported

Process/study execution related findings

- Phone calls were the preferred means of appointment reminders, though 52% (n = 30) of 58 patients in the 19 to 29-year-old age group preferred text messages over other methods of reminders.
- Staff completed 258 follow-up phone calls within 24 hours of a missed appointment, resulting in 71 (28%) patients rescheduling and keeping the next appointment.
- Most attempts to contact patients resulted in leaving voicemail messages (61%; n = 156).
- Thirty-one of the 130 patients at medium-risk (23.8%) received no PVP calls due to staffing shortage in the clinic.
- Twenty-eight of the 130 patients at medium-risk (21.5%) did not answer their phones and received only a voicemail reminder.
- The practice of attempting to reschedule missed appointments within 24 hours was discontinued after the project, as contacting patients was costly, resulted in mostly phone messages, and did not improve the no-show rate.

Adverse events

- None reported

*****Information provided by author.

Funding

- None reported

REFERENCES AND CONTACT INFORMATION

Adams, J. A., Whiteman, K., & McGraw, S. (2020). Reducing missed appointments for patients with HIV: An evidence-based approach. *Journal of Nursing Care Quality, 35(2),* 165-170. doi: 10.1097/NCQ.0000000000000434.

Researcher: **Judith Ann Adams, DNP, RN**
Outpatient Education
Allegheny Health Network
4900 Friendship Avenue
Pittsburgh, PA 15224

Email: judy.adams@ahn.org