

Evaluation of a Referral Management Program in the Retail Telehealth Setting Integrated in a Large Healthcare System

Jeffrey D. Vu, MS, RN, FNP-BC & Vinciya Pandian, PhD, MBA, MSN, RN, ACNP-BC



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Background

- Prolonged connection to referral services contributes to the 12 million diagnostic errors occurring every year in ambulatory care
- 1 in 3 adult patients is referred totaling over 100 million clinical referrals annually in the US
- A reliable and patient-centered referral management program can benefit health systems by improving timely referral follow-up and treatment, decreasing diagnostic errors, and healthcare costs

Objectives

This quality improvement pilot project evaluated the effects of a referral management program in a retail telehealth clinic setting.

Aims: To determine whether a referral management program will:

- result in an increase in referrals appointments initiated
- result in an increase in referrals completed
- result in an increase in appointments referred to in-network clinicians

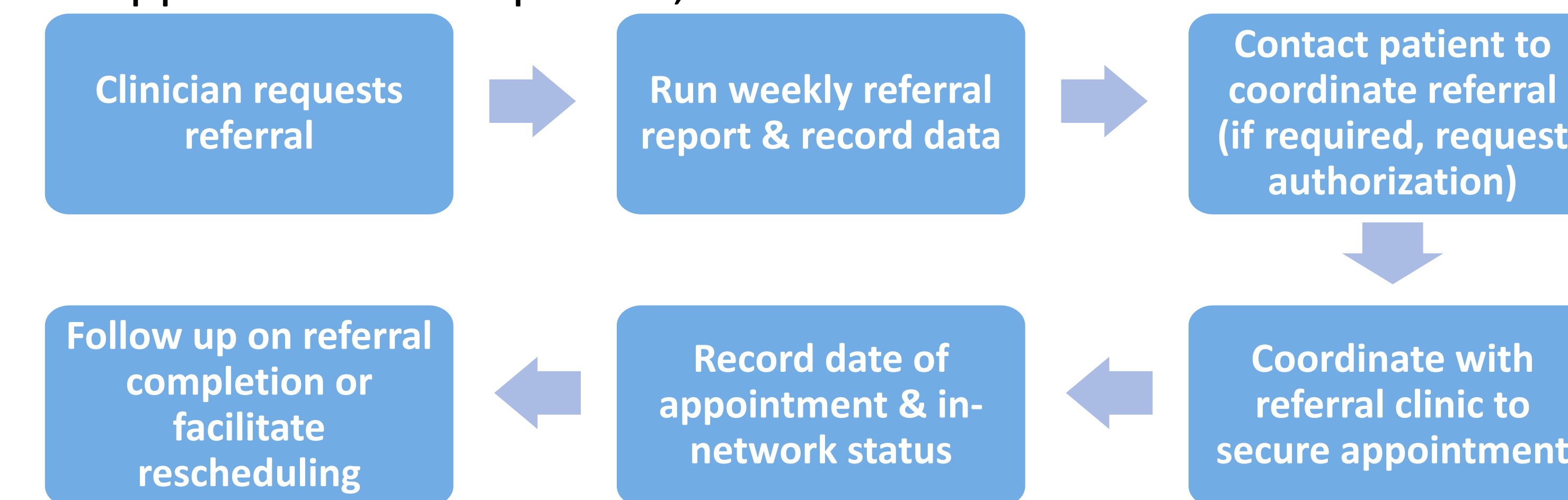
Design

- **Design:** pre-post intervention design with different groups
- **Setting:** a retail telehealth clinic setting in a large health system
- **Sample:** convenience sample of 158 total referrals, >18 years old
- **Exclusions:** insurance not covered by the clinic
- **Timing of Intervention:** Sep-Nov 2020 enrollment period
- **Analysis:** Fisher's Exact test compared binary categorical data

Measures	Description	Numerator/Denominator
Referral Initiation	Patients scheduled for referral appointment	$\frac{\# \text{ of appointments scheduled}}{\# \text{ of patients referred}}$
Referral Completion	Patients that attend referral appointment	$\frac{\# \text{ of appointments attended}}{\# \text{ of patients referred}}$
In-network Referral	Referrals scheduled in-network clinician	$\frac{\# \text{ of in-network referrals}}{\# \text{ of patients referred}}$

Evidence Based Intervention

- Referral Care Coordinator: dedicated staff to contact patients and coordinate referral appointments
- Referral Tracking Sheet: documents demographics, contact information, status of appointment initiation, referral appointment completion, and in-network referral status

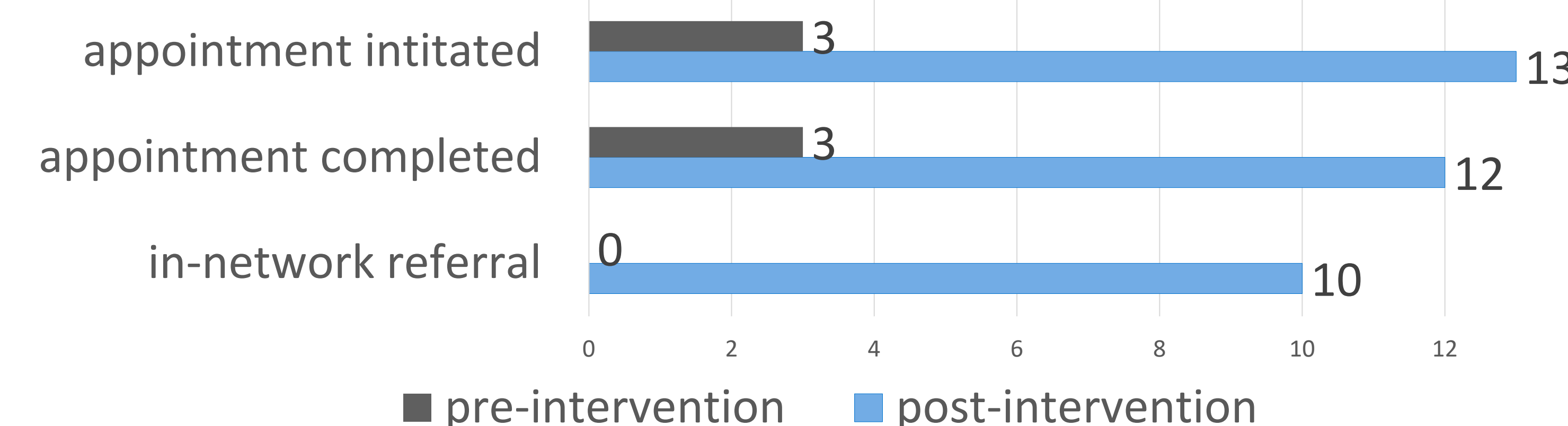


Sample Demographics

Characteristic	pre-intervention (n=56)	post-intervention (n=102)
Age, mean (SD)	34.3 (12.3)	36.6 (13.3)
Sex, n (%)		
Male	27 (48.2)	40 (38.5)
Female	29 (51.8)	64 (61.5)
Specialty Type, n (%)		
Primary Care	55 (98.2)	88 (84.6)
Medicine Specialty	1 (1.8)	14 (13.5)
Allied Health	0 (0)	2 (1.9)
Other	0 (0)	0 (0)

SD = standard deviation

Results



Findings

Referral Initiation	Increase in absolute number from 3 appointments pre-intervention to 13 appointments in the intervention group (p=0.113)
Referral Completion	No statistical difference between pre- and intervention groups (p=0.669)
In-network referral status	Statistically significance in increasing in-network referrals (p<0.01)

Discussion & Conclusion

- A Referral Management Program can increase the number of patients that schedule their follow-up appointment improving safety
- The Referral Management Program drives patients back to in-network referrals
- Health systems are financially incentivized to manage referral in a timely manner
- Findings align with evaluation of similar referral management programs
 - Smaller sample size may contribute to differences in statistical significance
- Evaluation of a Referral Management Program in telehealth is a novel setting
- The telehealth setting leads to asynchronous communication affecting engagement with patient contact

A referral management program streamlines the process benefitting patient safety & incentivizes the health system

- **Limitations:** Implementation during the COVID-19 Pandemic limited availability to non-urgent clinical appointments which affected referral outcomes during the observation period. In addition, dedicated staff for the Referral Care Coordinator was restricted due to pandemic response.
- **Sustainability:** the health organization recognizes the benefit of maintaining a robust Referral Management Program and has committed to dedicating staff in multiple regions to the role of Referral Care Coordinator

Key Resources

Fabre, J. C., Andresen, P. A., & Wiltz, G. M. (2020). Closing the loop on electronic referrals: A quality improvement initiative using the care coordination model. *The Journal of Ambulatory Care Management*, 43(1) Retrieved from https://journals.lww.com/ambulatorycaremanagement/Fulltext/2020/01000/Closing_the_Loop_on_Electronic_Referrals_A.9.aspx

Forrest, C. B., Majeed, A., Weiner, J. P., Carroll, K., & Bindman, A. B. (2002). Comparison of specialty referral rates in the United Kingdom and the United States: Retrospective cohort analysis. *BMJ*, 325(7360), 370-371.

National Academies of Sciences, Engineering, and Medicine. (2015). *Improving diagnosis in health care*. Washington, DC: The National Academies Press.

Spahr, J., Coddington, J., Edwards, N., & McComb, S. (2018). Implementing comprehensive primary care referral tracking in a patient-centered medical home. *Journal of Nursing Care Quality*, 33(3) Retrieved from https://journals.lww.com/incajournal/Fulltext/2018/07000/Implementing_Comprehensive_Primary_Care_Referral.9.aspx