

Using A Smartphone App To Improve Cancer Medication Adherence



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Background

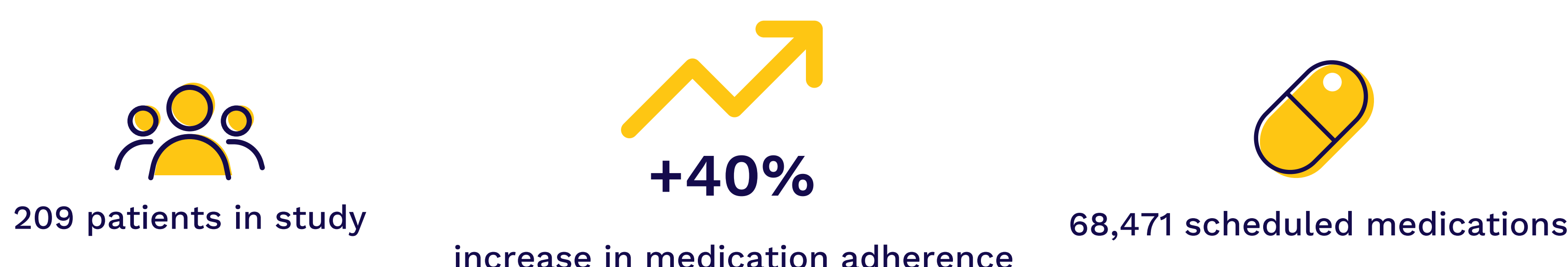
Compliance and adherence to prescribed cancer medication is essential for optimising patient thriving and survival¹. Nonadherence can lead to clinical deterioration and increased healthcare costs². Studies show adherence rates for self-administered (e.g. oral) medications average 50% and range from 15% to 97%³. Evidence suggests patients' use of smartphone apps to manage self-administered medications can complement nurse-led efforts and have a positive effect on adherence⁴. This study examines medication adherence by cancer patients using a smartphone app to manage self-administered medications.

Methods

We performed a retrospective analysis of medication adherence for 209 patients undergoing cancer care between January and December 2021. Patients voluntarily used a smartphone app called Vinehealth Cancer Companion to manage their self-administered cancer medications at home. Patients input their medication(s) into the app using the NHS Digital SNOMED CT medication list and received push notification reminders to take their medications as prescribed. In this review, we undertook a descriptive analysis of medication adherence by comparing the number of medication doses taken versus scheduled during the period of analysis.

Results

209 patients reported using 272 different medications and scheduled 68,471 medication doses. A comparison of the number of doses taken versus scheduled demonstrated an average medication adherence rate of 70% across all self-administered medications (excluding Pro re nata analgesics). Compared to an average adherence rate of 50% from the literature, patients using the app demonstrated a significantly higher average rate of adherence to their self-administered cancer medications.



Conclusion

This study demonstrates smartphone apps with reminder functionality have the potential to improve cancer medication adherence rates, which may lead to improved patient outcomes and reduced treatment monitoring demands on nurses. Further evaluation and research is needed to investigate the impact of smartphone applications on medication adherence as compared to a control group and across a larger population of cancer patients.

References

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