

Title: System of Adherence/Self-Management, Emergency Visits and Hospital Admissions in a Sample of Patients with Diabetes: 'Challenges of bridging the gap between big data analysis and qualitative data analysis.'

OBJECTIVE

Understanding the factors associated with increased emergency room (ER) visits and hospital admissions (HAs) in patients with diabetes. We wanted to study the relationship of the system of self-management (diet, exercise, regular intake of medications, regular doctor visits, and regular glucose monitoring) and the emergency visits and hospital admissions.

RESEARCH DESIGN AND METHODS

We obtained electronic medical records (EMR) data of 24,560 patients from a diabetes clinic. We randomly selected 8000 patients that were sent anonymous online surveys. We received 698 responses from the online surveys and 98 from paper surveys. In total, we evaluated 773 surveys. We were able to match the DE identified qualitative survey data to the EMR data. We obtained 250 perfect matches. The match helped us verify the survey data from the EMR data.

RESULTS

We found that 51.4% of the survey respondents were not adherent to all 5 areas of self-management. Our regression models indicate that the system of adherence has a significant effect in reducing the ER visits and HAs in a random sample of patients with diabetes.

CONCLUSIONS

Adherences to all five or at least four areas of self-management are modifiable factors associated with decrease in emergency visits and hospital admissions.