

Project Title

Differences in Causes and Factors of Medication Non-Adherence Among Young and Old Community-Dwelling Adults: A Cross-Sectional Study

Project Lead and Members

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Organisation(s) Involved

National Healthcare Group HQ

Healthcare Family Group(s) Involved in this Project

Nursing, Pharmacy

Applicable Specialty or Discipline

Public Health, Community Health

Aims

To 1) estimate the prevalence of intentional and unintentional medication non-adherence in young adults (aged 21-64 years) and older adults (aged ≥ 65 years) respectively; 2) identify and compare the main causes of medication non-adherence; and 3) examine the association between potential factors and medication non-adherence in each age group.

Background

Medication non-adherence has become a striking problem among patients with chronic diseases worldwide, with different prevalence in young and older adults. Hence, it is necessary to identify context-specific factors and causes that contribute to medication non-adherence in these two age groups. We conducted this study to 1) estimate the prevalence of intentional and unintentional medication non-adherence in young adults (aged 21-64 years) and older adults (aged ≥ 65 years) respectively; 2)

identify and compare the main causes of medication non-adherence; and 3) examine the association between potential factors and medication non-adherence in each age group.

Methods

This cross-sectional study sampled 1,528 participants on medications from the Phase 2 Population Health Index Survey conducted in the North and Central regions of Singapore in 2019. Unintentional and intentional medication non-adherence was determined by participants' responses to two questions on their frequency of forgetting to take their medications (unintentional) and purposely missing a dose of medication or adjusting it to suit own needs (intentional). Causes of medication non-adherence were collected using a modified questionnaire containing 17 pre-defined causes in 5 domains (Figure 1). Chi-squared tests and Fisher's Exact tests were conducted to examine the differences in characteristics and causes of medication non-adherence between two age groups. Multiple logistic regressions were conducted to identify demographic characteristics, lifestyle factors and comorbidities associated with medication non-adherence.

Results

The prevalence of non-adherence (reported "sometimes" or more frequent) was 20.0% and 10.4% in young and old adults, respectively, with young adults reporting higher unintentional (17.4% vs 7.8%) and intentional non-adherence rates (8.3% vs 3.5%) than older adults. As shown in Table 1, being afraid of developing drug dependence, forgetting to take their medication, and having issues with taking their medication at a specific timing were the most common reasons for non-adherence in both groups. Compared to young adults (1.7%), older adults were more likely to report a lack of understanding of medication labels as a reason for non-adherence (6.5%, $p < 0.05$). The presence of depressive symptoms was associated with higher odds of non-adherence in both young and older adults. Being of Malay ethnicity, employed, of personal income of \leq S\$1000, and a smoker were associated with higher odds of non-adherence in young adults.

Conclusion

Some differences in causes of medication non-compliance and factors associated with it in young and older adults were identified. A deeper understanding of these reasons for non-compliance and patient profiles could potentially guide healthcare professionals in designing tailored interventions for respective groups to ensure patients are able to take their medication as intended.

Additional Information

Accorded the Singapore Health & Biomedical Congress (SHBC) 2022 Best Poster Award (Nursing) Poster Category

Project Category

Applied/ Translational Research

Quantitative Research

Keywords

Medication, Adherence, Non-Adherence, Compliance, General Population

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