



## IMPACT OF COOPERATIVE PHYSICIAN-PHARMACIST MEDICATION THERAPY MANAGEMENT TOWARD POLYPHARMACY ELDERLY 多種用藥老人病患之醫藥合作藥物治療照護模式 之成效評估

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**Background:** The elderly are vulnerable to adverse drug outcomes due to aging, multiple chronic illnesses, inappropriate use of polypharmacy and poor adherence to treatment. It would be beneficial to develop a cooperative physician-pharmacist (PP) model to facilitate appropriate medication use among the elderly. The aim of this research was to evaluate the impact of a cooperative PP medication therapy management (MTM) model for polypharmacy elderly in Taiwan.

**Methods:** A randomized, controlled intervention study was designed and implemented to recruit the loyal elderly patients who regularly visited more than one medical specialty, possess more than three chronic diseases, and were polypharmacy in a 2000-bed medical center in Taiwan. While patients in PP-MTM group received intensive, continuous, cooperative care and monitored for one year, those patients in usual care (UC) group received only follow-up assessment for one year. The economic and humanistic (e.g., EQ5D, GDS15, IADL) outcomes among two groups were compared using descriptive analysis.

**Results:** Totally, 178 elderly patients in two groups (87 in PP-MTM group and 91 in UC group) were recruited, while 1,200 potential patients were approached to solicit their intention of participation. Male were predominant in both groups and all patients' mean age was 78.2±6.0 year-old. Although PP-MTM group had higher proportion of diabetics than UC group (46% vs 25%,  $p=0.0039$ ), there was no statistically significant difference in age, gender, other chronic diseases, health related quality of life and functional assessments between two groups at baseline. Over one-year implementation, the PP-MTM group spent \$3,183,814NTD less than UC group. The EQ-VAS among



PP-MTM group was significantly higher than UC group ( $p=0.01$ ).

Conclusion: The implementation of collaborative physician-pharmacist medication therapy management was truly beneficial toward the elderly patients. Further analysis is needed to assess the effect of PP-MTM service on clinical outcomes.

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