The effectiveness of daily pre-packed medication with pictogram labelling (DPM-PL) in improving medication adherence of haemodialysis (HD) patients in Sibu Hospital

Ling Ding Ee[1], Hii Evangelin Hui Hui[1], Sii Pei Jen[1], Ting Grace Yien Ling[1], Mah Angelica Xiao Hei[1], Kong Min Xian[1], Hii Lawrence Wei Soon[2], Ting Chuo Yew[3]

[1]Sibu Hospital, [2]Sarawak General Hospital, [3]Sarawak State Health Department

ABSTRACT

Introduction: Medication non-adherence has been a common issue among haemodialysis (HD) patients with multi-pharmacological treatment. We aim to assess the efficacy of daily pre-packed medication with pictogram labelling (DPM-PL) to improve medication adherence among HD patients. **Methods:** A quasi-experimental study was conducted with 33 HD patients in Sibu Hospital for 3 months. HD patients who were taking ≥6 oral medications with poor medication adherence where Pill count (PC) <85% and Medication Adherence Assessment Tool (MyMAAT) score <54 were eligible. Pre-intervention PC, MyMAAT, medications Dose, Frequency, Indication and Time of administration (DFIT) score, pre-HD blood pressure (BP), and serum phosphate levels were compared against post-intervention readings. Data were analysed using paired-t test and repeated-measure of ANOVA test. **Results:** Based on PC, medication adherence showed significant improvement at week 4 (p=0.02) and week 6 (p=0.03). The mean post-intervention MyMAAT score (56.7 ± 3.91) was significantly higher compared to mean pre-intervention score (41.7 ± 9.49) with the mean score difference of 15 (p<0.001). Meanwhile, post intervention DFIT median [96.9 (IQR=7.3)] was significantly higher compared to pre-intervention DFIT median [91.7 (IQR=8.9)] with the median score difference of 5.2 (p=0.001, p<0.05). However, the difference in pre-HD BP over time was statistically insignificant (p=0.908 for systolic BP, p=0.761 for diastolic BP, p>0.05). The mean serum phosphate level decreased by 0.1mmol/L overall but was deemed statistically insignificant (p=0.273, p>0.05). **Conclusion:** This study depicted evidence that DPM-PL has a positive impact on patients' medication adherence over time based on PC, MyMAAT and DFIT score.