Title : Effects of a physical restraint reduction program

A non-randomized control trial with parallel groups were implemented to evaluate the effectiveness of a physical restraint (PR) reduction program in two public rehabilitation hospitals in Hong Kong. The study employed convenience sampling and there were two wards each in control group (CG) hospital and intervention group (IG) hospital. The intervention components of the PR reduction program included sixteen 1.5-hour sessions nursing education program and 32-hour on-site consultation on physical restraint reduction. Full time nurses working in IG received study intervention and nurses working in CG did not receive intervention. Patients were observed for restraint condition once per shift, three shifts a day for 9 shifts before and after intervention. The outcome measures were the PR prevalence rate and restraint proportion before and after intervention. Whenever patient was once restrained in the 9 shifts, the prevalence was counted "yes". The restraint proportion was the number of shifts being restrained over the occupied shifts within 9 shifts.

The study recruited a total of 116 nurses, in which 59 were in CG and 57 in IG. A total of 1,959 patients were observed in the study with 1019 were male and 940 were female patients. The patient's age median (IQR), male : 84 (78-90), female : 83 (75-88). The physical restraint prevalence of both CG and IG were reduced after intervention but of no statistical significance. It was found that for the restraint proportion, the between group difference was with $p=0.026$ (OR: 0.639, 95% CI : 0.430-0.948),within group difference with $p<0.001$ (OR: 0.630, 95% CI :0.524-0.757), and the interaction effect with $p=0.008$ (OR:1.407, 95% CI :1.093-1.811) by negative binomial regression model analysis.

The study showed that through nursing education program and on-site consultation on PR reduction, patient's PR proportion was significantly reduced after intervention.

Biography :

Timothy WONG is working as a registered nurse in a public hospital in Hong Kong. He is now undertaking a part-time doctoral nursing program in a local university. His research interest is on physical restraint and rehabilitative nursing.