

# Older Adult Medication Management

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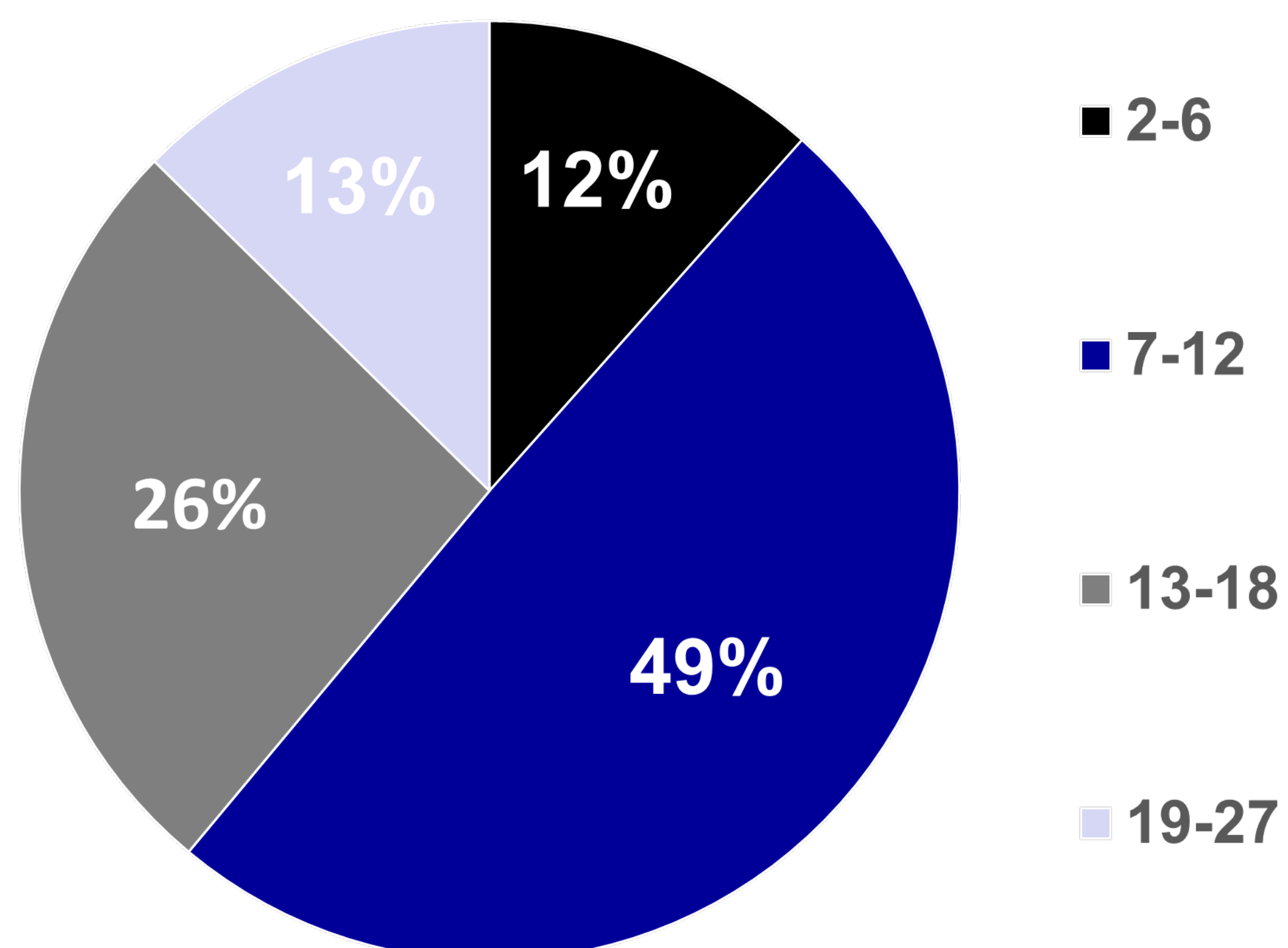
## Background

At present, 42% of older adults experience the effects of disease, and are treated with medication (Salive, 2013). Nearly 60% of adults over 65 take 5 or more medications and 20% take 10 or more, placing them at risk for adverse drug events (Carter, Barnette, Chrischilles, Mazzotti, & Asali, 1997). Medication Management Therapy (MTM) addresses issues of polypharmacy and preventable adverse drug events (Barnette, Murphy, & Carter, 1996).

## Intervention

A MTM project was implemented within a geriatric home-based community to decrease medication related falls, emergency department (ED) visits and acute care (AC) admissions. During the study nurses (n=8) were educated in MTM with an online and in-class protocol, tested on MTM knowledge and were given MTM tools to guide practice. The nurses reviewed medications, monitored drug-to-drug interactions and provided interdisciplinary coordination in the participants' homes.

## Total Medications Taken



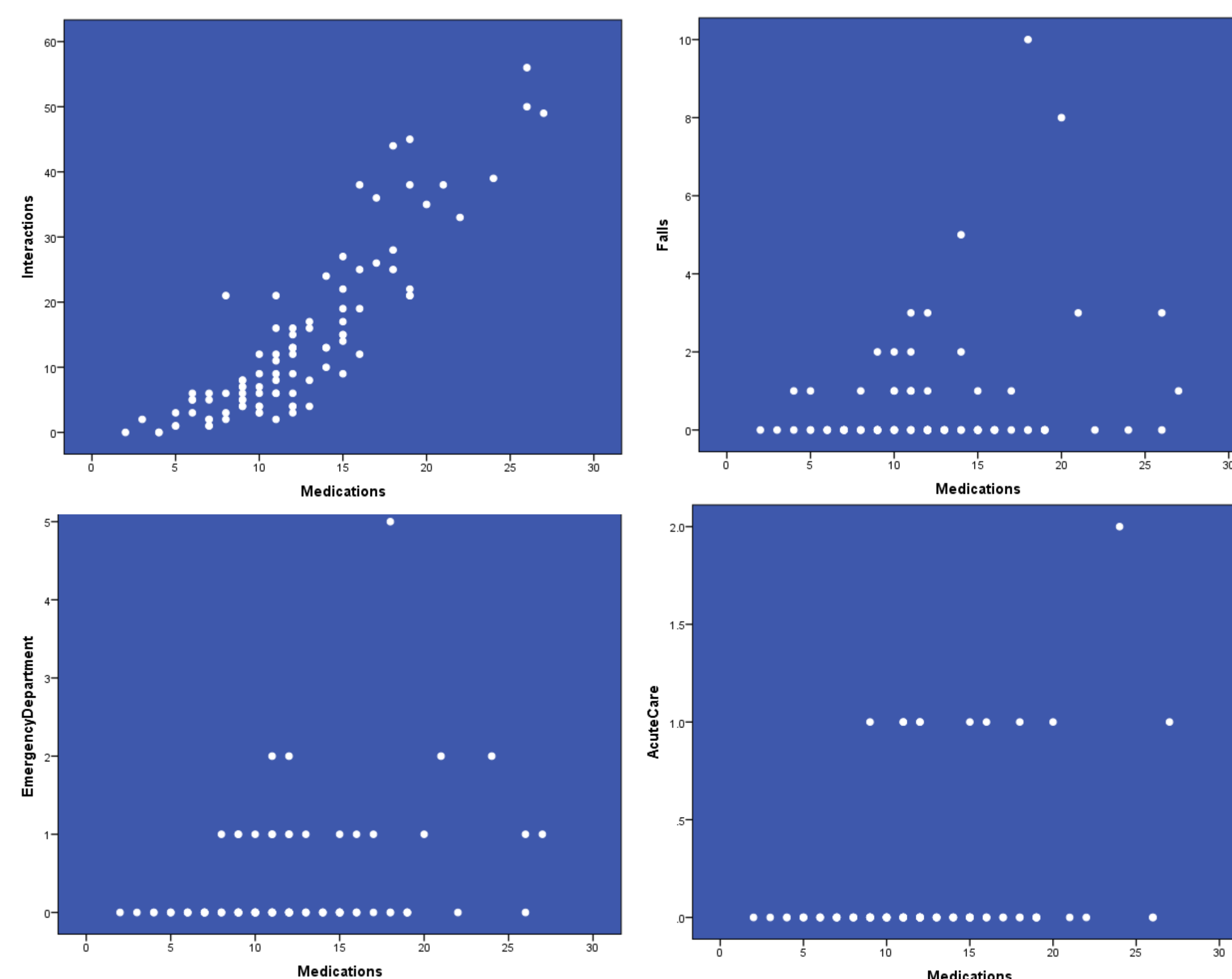
88% of participants took 7 or more medications on a daily basis.

## Methods & Design

Data were collected via a retrospective chart review of RN documentation on a sample of 100 participants ages 54-105 years (M=80.15 yrs., SD= 10.15). Five participants dropped out of the study due to pre-existing medical conditions that precluded participation. All participants were enrolled in a community based care setting and were closely monitored by RNs.

## Results

Preliminary data show that the total number of medications taken were highly correlated with an increased number of medication interactions ( $r = .87, n = 95, p < .001$ ), falls ( $r = .24, n = 95, p = .019$ ), ED visits ( $r = .29, n = 95, p = .004$ ) and AC admissions ( $r = 0.29, n = 95, p = .003$ ).



Falls, ED visits, AC admission and medication interactions all increased when 7 or more medications were taken on a daily basis.

## Conclusions

On average, a single ED visit fee is \$1,233 (Caldwell, Srebotnjak, Wang, & Hsia, 2013) and a three-day AC admission is \$30,000 (U.S. Centers for Medicare & Medicaid Services [CMS], 2017). With healthcare costs continuing to rise for older adults living in home-based settings, the impact of MTM on falls, ED visits and AC admissions merits further investigation.

## Nursing Implications

Nurses must remain vigilant of the association between medication interactions and adverse events. They must be proactive in the presence of polypharmacy for the older adult population living at home.

## Correlations

		Falls	Emergency Department	Acute Care	Medication Interactions
Medications Taken Daily	Pearson Correlation	.240*	.291**	.298**	.879**
	Sig. (2-tailed)	.019	.004	.003	.000
	N	95	95	95	95

\*. Correlation is significant at the 0.05 level (2-tailed).  
\*\*. Correlation is significant at the 0.01 level (2-tailed).

## References

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