POSTER ABSTRACT

Caregiver needs and formal long-term care service utilization in the Andersen Model: An individual-participant systematic review and meta-analysis

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The aims of this study were to (i) provide precision on the existence, magnitude and direction of the relationship between informal caregiver needs – burden, health status and depression, and formal long-term care service (LTCS) utilization, (ii) provide evidence to support caregiver training programmes, and (iii) propose a new model of factors for formal LTCS utilization.

Electronic searches of major scientific databases such as MEDLINE and PsycINFO, and hand-searches of ProQuest were conducted. Studies were included if they used the Andersen Model to guide variables selection, collected data directly from caregivers, and had the use of at least one LTCS as a criterion variable. Studies that did not report data required for meta-analyses were excluded. Separate meta-analyses were conducted for each of the three predictors. The effect size was the magnitude difference in any one predictor between LTCS users and non-users. Pearson correlation coefficients were extracted or calculated for each study and combined using appropriate effects models.

Of the 40 studies identified, 18 were excluded upon abstract screening and a further 14 were excluded upon full-text screening. Of the remaining seven studies, six were reported in journal articles, and one in a dissertation. Of these seven studies, four had American, one had Mexican American, one had Canadian, and one had Australian participants. The final sample included a total of 1,073 caregivers with a range of mean ages from 47.9 to 80.3 years. Using random effects models, the combined unadjusted Pearson rs between LTCS use and caregiver burden (n = 4), health (n = 3) and depression (n = 4) were modest – .08 (p = .003), .08 (p = .031), and .09 (p = .193) respectively. The confidence intervals were .03 to .13, .01 to .15, and -.08 to .25 respectively. The effect of caregiver burden on LTCS use was homogeneous, Q = 2.66, p = .448, I2 = 0.00%. The effect of caregiver health on LTCS use was also homogeneous, Q = 2.80, p = .247, I2 = 28.5%. The effect of depression on LTCS use, however, was heterogeneous, Q = 24.23, p < .001, I2 = 87.6%. Moderator analyses found that mean caregiver age did not influence the effect of caregiver depression on LTCS use, β = .56, p = .341. No publication bias was found in both the homogeneous effects.

Within the Andersen Model, higher caregiver burden and poorer caregiver health are related to a modest, albeit real, increase in LTCS use. Integrated LTCS design should consider the

caregiver. Caregiver training programmes aimed at addressing caregiver burden and health status should be a part of LTCS. The Andersen Model, when expanded to include caregiver needs, is potentially a useful framework that may guide LTCS and integrated care utilization.

Although the sample was small, this was the first systematic review and meta-analyses of the effect of self-reported caregiver needs - burden, health and depression - on LTCS use within the Andersen Model.

The PRISMA-P adapted protocol of this unfunded study is available from the first author.