

$p = 0.262$). Neither difference proved statistically significant.

We had hoped to recruit much larger numbers of residents and family carers but our strict inclusion criteria proved an obstacle. This greatly limited the study's statistical power. These pilot study results look promising nonetheless and warrant further exploration.

Older people make increasing use of the internet and many nursing homes now provide internet access to residents' rooms (Australian Bureau of Statistics, 2014). It makes sense therefore to harness new digital technology to help cognitively impaired residents engage more fully with family members between visits. Volunteers might also play a role as "communication therapists" (van der Ploeg *et al.*, 2014). Our findings suggest, but do not prove, that combining visual with auditory sensory inputs captures attention and reduces agitated behaviors more effectively than auditory inputs alone.

Conflict of interest

None.

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Mental healthcare for older adults in rural Greece

Community mental healthcare in rural and remote areas of Greece is mostly delivered by generic Community Mental Health Teams (CMHTs), namely the Mobile Mental Health Units (MMHUs). In Epirus, north-west Greece, one of the poorest regions in Europe, the MMHU of the prefectures of Ioannina and Thesprotia (MMHU I-T) has been established in 2007

and provides services to a population grossly estimated at 100,000 per size of the catchment area in remote and mostly mountainous rural areas. The establishment of the MMHU I-T and its contribution to the care of patients with psychosis has been described elsewhere (Peritogiannis *et al.*, 2011).

Here, we report on care delivery for elderly patients. In particular, we aimed to compare the type of delivered care (home- or office-based) between patients with an age-related disorder, such as dementia and patients with other diagnoses.

All diagnoses have been made according to the International Classification of Diseases-10th Revision criteria, based on usual clinical assessment with no regular use of a structured clinical interview. All medical records of active patients were reviewed in the six-month period from July to December 2013. "Active" is defined in this context as patients who regularly attended scheduled follow-up appointments. From a total of 264 service-engaged patients, 137 (51.9%) were elderly (≥ 65 years). Most of the elderly patients were women (68%) and their mean age was 76.8 years. We also categorized the 137 patients into four groups according to disease type (dementia, mood disorders, psychotic disorders, and other) and calculated the median age with interquartile range (IQR) for each of the four patient groups. We compared median age between groups using Kruskal–Wallis test. To explore whether there is a correlation between the mode of delivery for psychiatric healthcare and disease type, we performed univariate logistic regression including home-based care as dependent variable and disease type as independent variable. All p -values less than 0.05 were considered as statistical significant. Statistical analyses were performed in SPSS 21.0. Our analysis showed that patients with dementia were more likely to receive care with regular follow-up appointments at their homes than patients with mood disorders (20/37, 55% vs. 11/61, 18%; $p < 0.01$), and patients with other diagnoses such as anxiety disorders, somatoform disorders, alcohol misuse, etc (20/37, 55% vs. 5/21, 24%; $p = 0.03$). No differences were yielded with regard to patients with psychosis (Supplementary Table S1, available as supplementary material attached to the electronic version of this paper at www.journals.cambridge.org/jid_IPG). The median patient age was higher for patients with dementia. We have previously reported that age was associated with the type of care delivery by our unit (office- or home-based); the older the patient the more likely they received care with regular domiciliary visits of the team (Peritogiannis *et al.*, 2013). However, the observed differences between diagnostic categories within the elderly patients could not be attributed to age differences. Median patient age was not statistically different for patients with dementia (82 years, IQR 9) and patients with mood disorders (75 years, IQR 13.5), or other diagnoses (76 years, IQR 14). Only patients with psychosis had a significant lower median age (71.5 years, IQR 10.25) than patients with dementia, but rates of home-based care did not differ in these two groups. It seems that age is not accountable alone for the observed differences in the type of delivered care. Other factors, such

as symptomatology and service-related factors may better explain the differences. For instance, the behavioral and psychological symptoms of dementia (BPSD) may be a barrier for accessing office-based care. On the other hand, patients with psychosis are a priority for MMHUs and although relatively younger they often received home-based care. For most of those patients, this was the only opportunity to receive mental healthcare at their place of residence. Such an approach is resource consuming, because the team members may have to travel long distances in mountainous areas to examine elderly patients at their homes. However, given the burden of dementia on patients, caregivers and the health system, this approach is essential for the care of those patients and their caregivers.

The generalizability of our findings is unknown. However, MMHUs in Greece follow uniform operational principles, thus we believe that this may be the case of other similar units in our country, but replication of these results in larger, multisite studies is needed. Evidence from Japan suggests that a home-based medical model for patients with dementia presenting with BPSD is an effective approach by taking into account the impact of the symptoms on the daily routine of the patients when releasing treatment and by involving caregivers in the monitoring of drug-induced adverse effects (Kinoshita, 2008). In a recent review, of the literature on CMHTs for older people (Abendstern *et al.*, 2012) the authors concluded that there is an overall paucity and inconclusiveness of the evidence regarding the usefulness of such an approach, although this type of care appears to demonstrate better outcomes when compared with usual practices. With regard to our country perhaps the best practice is to incorporate principles of psychogeriatric care within generic MMHUs. In many instances, such care may be the only opportunity for patients and caregivers living in those remote areas to receive treatment and support respectively. Old age is associated with failure or delay to make contact with mental health services (Wang *et al.*, 2005), due to several adversities, such as cognitive decline and physical morbidity, but also in this study for geographic and economic reasons. Home-based care for elderly patients with dementia delivered by generic MMHUs in rural and remote areas in Greece may address this fragile population's barriers in accessing mental health services. Generic MMHUs are lower costs services compared to other mental health services, such as the Assertive Community Treatment teams, and they are not specialized in the care of the elderly, as the highly specialized CMHTs for older people. In the era of economic crisis and limited resources, the care delivered by the MMHUs is worthy.

Conflict of interest

None.

Supplementary material

To view supplementary material for this article, please visit

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