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An assessment of telephone assistance systems for caregivers of patients with Alzheimer disease☆

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Abstract
Introduction: Telephone assistance is a common practice in neurology, although there are only a few studies about this type of healthcare. We have evaluated a Telephone Assistance System (TAS) for caregivers of patients with Alzheimer's disease (AD) from 2 points of view: financially and according to the level of satisfaction of the caregiver.
Patients and methods: 97 patients with a diagnosis of AD according to NINCDS-ADRDA criteria and their 97 informal caregivers were selected. We studied cost differences between on-site assistance and telephone assistance (TAS) for 12 months. We used a self-administered questionnaire to assess the level of satisfaction of caregivers at the end of the study period.
Results: TAS savings amounted to 80.05 ± 27.07 euros per user. 73.6% of the caregivers consider TAS a better or much better system than on-site assistance, while only 2.6% of the caregivers considered TAS a worse or much worse system than on-site assistance.
Conclusions: Telephone assistance systems are an efficient healthcare resource for monitoring patients with AD in neurology departments. Furthermore, the level of user satisfaction was high. We therefore consider that telephone assistance service should be offered by healthcare services.

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PALABRAS CLAVE
Asistencia telefónica;
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Cuidador;
Satisfacción

Evaluación de la asistencia telefónica a demanda en cuidadores de pacientes con enfermedad de Alzheimer

Resumen
Introducción: La asistencia telefónica a demanda (ATAD) es una práctica habitual en las consultas de Neurología; no obstante, los estudios que valoran dicha modalidad de asistencia sanitaria son escasos. Hemos evaluado la ATAD en cuidadores de pacientes con enfermedad de Alzheimer (EA) desde el punto de vista económico y de la satisfacción percibida por el cuidador principal.
Pacientes y métodos: Se seleccionó a 97 pacientes con diagnóstico de EA según criterios NINCDS-ADRDA y sus respectivos 97 cuidadores principales. Estudiamos los gastos diferenciales entre las modalidades asistenciales presencial y a demanda a lo largo de 12 meses. A los 12 meses se valoró la satisfacción de los cuidadores principales mediante un cuestionario autoadministrado.
Resultados: El ahorro que supuso la ATAD frente la asistencia presencial fue de 80,05 ± 27,07 euros por usuario. Al 73,6% de los cuidadores que usaron la ATAD les parece mejor o mucho mejor esta que la asistencia presencial, mientras que al 2,6% de los cuidadores les parece peor o mucho peor.
Conclusiones: La ATAD supone un servicio de salud eficiente en el seguimiento de los usuarios con EA en las consultas de Neurología y la satisfacción de los usuarios fue alta, por lo que consideramos que debería incluirse en la cartera de servicios del sistema sanitario.

Introduction

The telephone has been used for various purposes in the field of healthcare in general, and in neurology in particular, including for remote medical consultations as an alternative to in-person consultations for patients with difficulties accessing healthcare.[1] Experts agree that patients in advanced stages of Alzheimer disease (AD) can be followed up by telephone on demand.[2–4] Several studies have shown that telemedicine as a vehicle for information and support, whether on demand or as part of a follow-up schedule, improves carers' quality of life.[5–8]

Telephone assistance is an unstructured, informal practice frequently used in neurology departments. This approach provides timely responses to users' problems, increasing accessibility and helping overcome spatial and temporal barriers. However, it does have several disadvantages: physicians may not have the required clinical data immediately available to give a response; consultations are not recorded or quantified in databases; and telephone calls often interrupt in-person consultations.

Telephone assistance provided to patients with different neurological diseases usually results in a high level of satisfaction[9,10] and has objective advantages: it reduces travel times and costs associated with transportation to the healthcare centre.[1]

Applying new technologies to clinical practice requires rigorous studies following the stipulations of health technology agencies.[11,12] The benefits of these new technologies for carers, though small, have been extensively demonstrated. Evidence of their efficiency, however, is more controversial.[13]

Few studies have addressed the use of the telephone for healthcare provision, especially in our setting, and none of them have evaluated these systems in economic terms.[14–16] Our study provides a prospective economic evaluation of telephone assistance (cost minimisation analysis) and assesses user satisfaction with telephone assistance systems (TAS).

Patients and methods

The TAS project, developed in our dementia unit, provides primary carers of AD patients with the telephone number of the hospital liaison nurse, whom they can contact during working hours. The liaison nurse notifies the neurologist of the telephone calls he or she receives; within 24 hours, the neurologist provides telephone assistance using the patient's digital clinical history and the electronic prescription system.

We conducted a prospective observational study of 97 patients diagnosed with AD plus their carers ($n = 97$), who were identified as primary carers (PC).

Patients were recruited consecutively from the dementia unit of the neurology department at Hospital Universitario Virgen de la Victoria. Patients met all the inclusion criteria and none of the exclusion criteria. Participants were selected by purposive or convenience sampling from January 2014 to May 2014; all participants were followed up for 12 months. The study ended in May 2015.

Patients had to meet the following inclusion criteria: having a diagnosis of AD according to the NINCDS-ADRDA diagnostic criteria and displaying mild-to-moderate AD