ELSEVIER

Journal of Psychosomatic Research 70 (2011) 169–178

Journal of Psychosomatic Research

Reliable integrative assessment of health care needs in elderly persons: The INTERMED for the Elderly (IM-E)

Beate Wild[a,*], Sabine Lechner[a], Wolfgang Herzog[a], Imad Maatouk[a], Daniela Wesche[a], Elke Raum[b], Heiko Müller[b], Hermann Brenner[b], Joris Slaets[c,d], Frits Huyse[e], Wolfgang Söllner[f]

[a]*Department of General Internal Medicine and Psychosomatics, University Hospital of Heidelberg, Heidelberg, Germany*
[b]*Division of Clinical Epidemiology and Aging Research, German Cancer Research Center, Heidelberg, Germany*
[c]*Department of Internal Medicine, University Hospital, Groningen, The Netherlands*
[d]*Department of Geriatrics, University Hospital, Groningen, The Netherlands*
[e]*Hospital of the Free University, Amsterdam, The Netherlands*
[f]*Department of Psychosomatics and Psychotherapy, General Hospital, Nürnberg, Germany*

Received 12 April 2010; received in revised form 10 September 2010; accepted 20 September 2010

Abstract

Objective: With the increasing prevalence of multiple conditions in older age, the high prevalence of mental disorders, and the many social challenges facing elderly people, a high-risk patient group in need of interdisciplinary (biological, psychological, and social) care is emerging. The INTERMED interview is an integrative assessment method that identifies patients with complex health care needs. The aim of this study was to develop and evaluate the INTERMED for the Elderly (IM-E), specifically for use in populations of elderly persons. **Methods:** In focus groups conducted with the authors of the original INTERMED, the variables and anchor points that had to be adjusted to the needs and situation of the elderly and to the demands of a population-based study were discussed and altered. The final version of the IM-E was conducted with 42 elderly persons. Participants were doubly scored by two trained raters; the interrater reliability [intraclass correlation coefficient (ICC) (2,1)] was calculated. **Results:** The IM-E was well accepted by the elderly persons interviewed. ICCs for the various domains of the IM-E ranged between .87 and .95, while the ICC for the sum score was .95. Regarding the cutoff point of 20/21 for patients with complex health care needs, a κ of .75 was achieved. **Conclusions:** The IM-E is a reliable integrative assessment instrument. It is well suited for epidemiological settings to adequately describe the percentage of elderly patients with complex health care needs. In clinical settings, it can be used to identify elderly patients in need of interdisciplinary care.

Keywords: Biopsychosocial; Health care needs; Integrative assessment; Interdisciplinary; INTERMED for the Elderly; Interrater reliability

Introduction

Over the past years, the proportion of elderly people in many countries has increased dramatically. Population projections show that in the EU-25 states, the proportion of people aged 65 years or older is expected to rise substantially, from 16.4% in 2004 to 29.9% in 2050 [1]. These demographic changes go hand in hand with an increase in the prevalence of chronic diseases, presenting a challenge for health care systems. Among aging people, it is common to have more than one chronic condition. Results from a population-based study indicate that 67.3% of the German population aged between 50 and 75 years suffers from multimorbidity [2]. The co-occurrence of mental disorders frequently aggravates the course of multimorbidity in older age [3,4]. In addition, elderly people face many social challenges. This emphasizes the claim that, in general, health care in the elderly should integrate biological, psychological, and social perspectives. Effective community-based care for older people requires an assessment of the biopsychosocial

* Corresponding author. Department of General Internal Medicine and Psychosomatics, University Hospital of Heidelberg, Im Neuenheimer Feld 410, 69120 Heidelberg, Germany. Tel.: +49 0 6221 56 8663; fax: +49 0 6221 56 5749.
E-mail address: beate.wild@med.uni-heidelberg.de (B. Wild).

0022-3999/10/$ – see front matter © 2011 Elsevier Inc. All rights reserved.
doi:10.1016/j.jpsychores.2010.09.003

health care needs in this population. Therefore, a reliable, integrative assessment method that can easily be used in epidemiological and clinical settings is necessary.

The INTERMED interview is a method that reflects a biopsychosocial approach to the integrative assessment of health care needs of patients with a physical illness [5]. The INTERMED was developed by an international working group over the past 10 years, and has proven to be a valid and reliable instrument to identify elevated health care needs [6–11]. The assessment method is based on a semistructured interview that classifies the information into the four domains of a patient's biological, psychological, social, and health care-related characteristics. The questions and ratings in each domain are related to a time axis that is divided into past, present, and future. The interview results in an assessment of the four domains (over three periods); the respective scores of the four domains are added to give a total score reflecting the amount of health care needs of the participant. The main goal of the clinical use of the INTERMED is the identification of patients with complex (biopsychosocial) health care needs who are in need of interdisciplinary care. An additional goal is the improvement of communication between the patients and their providers, as well as among the providers themselves—both of which are necessary for the delivery of integrated care [12,13].

As the interview provides a systematic approach to patients' health risks and needs in the biological, psychological, social, and health care-related domains, it is not only an important clinical screening instrument but also a very useful research tool. However, for studies that focus on elderly participants, some rating categories and anchor points for the scoring of the original instrument are not appropriate because they do not explicitly consider the different or changing work and social situations of elderly persons. Also, as an interview originally developed for medical and surgical patients, the INTERMED refers to a clinical context in some of the questions and scorings. Therefore, several adjustments had to be made in order to be applicable to epidemiological and clinical settings. This study presents the development and psychometric properties of the INTERMED for the Elderly (IM-E)—an INTERMED-based interview developed specifically for use in elderly populations that facilitates application to population-based studies.

Methods

In focus groups conducted in conjunction with the international authors of the original INTERMED, the variables, lead questions, anchor points, and scorings that had to be adjusted to the needs and situations of the elderly were discussed. Some lead questions and anchor points were altered. A first version of the IM-E was developed and approved by all the participants of the study group of the INTERMED Foundation[1]. Pilot testing of the new version was done with six patients. In addition, a training and focus group with medical doctors working in the ESTHER study was conducted. The ESTHER study is a large German population-based epidemiological cohort study [14–16]. In the summer of 2000, the study was established to investigate chronic diseases in the elderly population. At baseline, 9953 persons ages 50 to 74 years were included. Currently, a third follow-up is being carried out that includes home visits for a subpopulation of the study sample.

Following the discussion with the ESTHER study doctors, the first version had to be revised to refine the clarity of the anchor points for the scoring. Together with the epidemiological coordination group of the ESTHER study, we designed a short, clear, and practical format of the interview structure and scoring procedure. A second training and focus group with different study doctors was conducted using videos of patient interviews and ratings according to the final version of the IM-E. The feedback of the study doctors and the international INTERMED group indicated that no further changes were necessary.

The interrater reliability of the final version of the IM-E was investigated in a heterogeneous sample of 21 elderly participants of a rehabilitation exercise program and 21 patients from an integrated psychosomatic/internal medicine ward of the University Hospital of Heidelberg, Department of General Internal Medicine and Psychosomatics. At the latter ward, primarily cardiac patients with a mental comorbidity are admitted; the average length of ward stay is 8 days [17].

The aim of the recruitment from two distinct settings was to include a heterogeneous sample of elderly participants. Recruitment was based on availability, and participants were approached individually. They were told that the interview was for purposes of a methodological reliability study and that participation was voluntary. At the internal ward of the university hospital, over a four-week period on two previously determined days per week, we approached all of the elderly patients (aged 50 years or older). Thirty-five percent of the patients refused to participate due to scheduling difficulties or lack of interest.

In order to include elderly persons from a different setting, we contacted a sports scientist who organizes rehabilitation exercise programs for elderly people. We approached the participants of three training courses over a one-week period. The refusal rate among the participants of the exercise program was 31%.

The interviews were conducted by two trained interviewers—one psychologist and one resident of psychosomatic medicine. Training was provided by W.S. in accordance with the standards of the INTERMED Foundation (www.intermedfoundation.org). Participants were interviewed by one of the two raters in the presence of the other

[1] Frits Huyse (NL), Peter de Jonge (NL), Roger Kathol (USA), Corine Latour (NL), Elena Lobo (E), Gundula Ludwig (CH), Joris Slaets (NL), Wolfgang Söllner (G), Barbara Stein (G), and Fritz Stiefel (CH).