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Self-reports on the IQCODE in Older Adults: A Psychometric Evaluation

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The Informant Questionnaire on Cognitive Decline (IQCODE) has been successful in identifying demented persons in a general population. In this study, this questionnaire was used as a self-report screening for dementia symptoms. The object was to investigate the feasibility, homogeneity, and construct validity of self-reports on the IQCODE. Participants were 4823 community-dwelling older adults who received an IQCODE-SR. Feasibility was assessed on the basis of response rate, the proportion of missing data for each item, and the number of persons who received help in completing the questionnaire. Homogeneity was checked with Cronbach's α . To

investigate construct validity, hypotheses on performance of the IQCODE-SR were tested. Feasibility was acceptable, with a response rate of 58.9%. Missing answers per item ranged from 2.5% to 7.3%, and 915 of 2841 participants received help in completing the questionnaire. Homogeneity was good, with Cronbach's $\alpha = .94$. The majority of hypotheses on construct validity were confirmed. It was concluded that the IQCODE-SR meets the basic requirements of a good measurement instrument.

Keywords: IQCODE; screening; dementia; cognitive impairment; psychometric evaluation

In Europe, the estimated prevalence rate of dementia among persons 65 to 95 years of age is 6.6%. Dementia is age-related, and the prevalence rates range from 1.4% in persons aged 65 to 69 years to 32% in persons aged 90 to 94 years.¹ The timely detection of dementia is important for society, for patients, and for their informal caregivers, because it benefits care support and the planning of future care.² In the advanced stages of dementia, it is more difficult to discuss preferences for care with patients. However, dementia tends to be underdiagnosed in primary care,³⁻⁷ and diagnosis often occurs

late in the disease process.⁸ An important patient-related barrier to timely recognition is the absence of a request for help. This can be attributed to denial, where cognitive impairment is attributed to normal aging or lack of insight, and the idea that nothing can be done.^{9,10} If primary care physicians wait for obvious symptoms of dementia before taking action, the diagnosis is delayed, often by several years, and this can delay the initiation of support for patients and their caregivers.¹¹ Early detection by means of screening might prevent such delays in this vulnerable group of patients, who do not easily request help. However, it is feared and reported that after diagnosis these patients may suffer from feelings of shock, anger, fear, and negative effects on their self-esteem.¹² On the other hand, the vast majority of patients with mild dementia wish to be fully informed.¹³ Furthermore, it was initially feared that these patients would become depressed after diagnosis, but most of them do not.¹⁴ Although there is still insufficient evidence to recommend or disapprove of screening for dementia and cognitive impairment in asymptomatic persons, it is worthwhile continuing with research on new screening methods.^{11,15,16}

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We developed a proactive screening method to improve the identification of patients with dementia in general practice. In a large general practice population of older people, we decided that it would be most efficient and practical to identify persons who are at high risk of dementia with a postal self-report questionnaire that could be completed either with or without assistance, followed by targeted cognitive assessments of those with a high risk. It can be expected that such an approach will be most successful in the early stages of dementia, when insight is more preserved.¹⁷ We searched for postal self-report instruments to screen for dementia in community-dwelling older adults, containing questions about cognitive decline and functioning in the instrumental activities of daily living (IADLs), because cognitive impairment is strongly associated with IADL functioning.^{18;19} Although several methods of screening for cognitive status were found,²⁰⁻²² no postal method of screening that contained questions about cognitive decline and IADL functioning was found. However, the self-report Informant Questionnaire on Cognitive Decline (IQCODE) was found to be successful in identifying demented people from a sample of the general population, based on differences in mean scores and separated frequency distributions.²³ Moreover, the IQCODE covers IADL items such as handling money for shopping and managing financial matters. Therefore, we administered the IQCODE in a different way: we used self-reports (with or without help from a proxy) instead of proxy reports.

Self-reports on the IQCODE constitute a new method of administration that enabled us to investigate psychometric properties.

The IQCODE contains questions about cognitive changes over the previous 10 years, and higher scores on the IQCODE indicate more cognitive decline. Principal component analysis has shown that the questionnaire measures 1 general factor of cognitive decline.^{23,24} Reported internal-consistency figures were uniformly high, ranging from 0.93 to 0.97.²⁴ The original questionnaire contained 26 items, but after we eliminated items with lower reliability and validity or a substantial influence of education, 16 items remained on the short form.²⁵

The 16-item self-report IQCODE (IQCODE-SR) was used to identify older adults with a high risk of dementia in the community. We expected that the self-report version would have similar psychometric properties as the informant version of the questionnaire, so we examined its feasibility, homogeneity, and construct

validity. Construct validity can be described as an underlying theory on how the IQCODE-SR is expected to perform as a screening instrument for patients with a high risk of dementia in the community.²⁶ We hypothesized the following a priori:

1. A negative association r_s $-(0.30-0.70)$ with measures of current cognitive functioning (in tests with higher scores indicating better functioning), as on the informant version: correlations with the Mini Mental State Examination (MMSE) were in the range of -0.37 to -0.78 .²⁴
2. Higher mean and median IQCODE-SR scores in patients with suspected dementia, according to their general practitioner (GP), than in other patients.
3. A moderate, positive association r_s $(0.40-0.60)$ with ratings of disabilities in performing the activities of daily living (ADLs) and IADLs, because cognitive decline in the initial stages of dementia is associated with a decline in IADLs and, in the later stages, also with a decline in ADL functioning.^{19,27}
4. Higher mean and median IQCODE-SR scores in the oldest persons than in the youngest, because dementia is age-related.¹
5. Similar mean and median IQCODE-SR scores for men and women.
6. A negligible association r_s $(-0.10$ to $0.10)$ with level of education and last job level, because previous studies reported a negligible correlation with education on the informant version.²⁴
7. A small positive association r_s $(0.20-0.45)$ with depression, just as on the informant version,²⁴ because depression affects cognitive functioning,²⁸ but simultaneously it would be undesirable if depression strongly affected the scores on the IQCODE-SR.
8. Higher mean and median IQCODE-SR scores in persons who completed the questionnaire with help than in those who completed the questionnaire independently, because we assumed that there would be more cognitively impaired persons in the first group.

Methods

Design

This was a study of the psychometric properties (feasibility, homogeneity, and construct validity) of self-reports on the 16-item IQCODE. The self-reports were used to screen for dementia symptoms alongside a randomized clinical trial. A postal health questionnaire, including an IQCODE-SR, was sent to 4823 older adults by their GPs. Independently, the GPs were asked

to identify dementia cases among the persons they had approached. Participants with an IQCODE-SR score of 3.6 or greater (strongly suggesting cognitive decline on informant reports) underwent cognitive tests, as did a random sample of 200 participants with an IQCODE-SR score of less than 3.6. The Medical Ethics Committee of the VU University Medical Center in Amsterdam approved the study protocol.

Participants

The source population consisted of 4823 patients of 55 GPs in West-Friesland, in the Netherlands. The patients were 75 years of age or older and lived at home. Written informed consent was obtained from the participants or, in the case of those who were incompetent, from their representatives. Scores on the IQCODE and the results of the cognitive tests were used as criteria for inclusion in a randomized clinical trial among cognitively impaired patients and their primary informal caregivers. The following exclusion criteria were also applied: assistance from an outpatient geriatric team for cognitive problems, terminal illness, insufficient command of the Dutch language, institutionalization, participation in other research, and no caregiver. No exclusion criteria were applied for the sample of participants with an IQCODE-SR score lower than 3.6.

Instruments

Postal health questionnaire. To collect data on participant characteristics, the postal health questionnaire contained questions on sociodemographic and health status variables. Apart from the IQCODE-SR, the health questionnaire covered age, gender, level of education, last job level,²⁹ ADL and IADL functioning measured with the Groningen Activity Restriction Scale (GARS),³⁰ and depressive symptoms measured with the Center for Epidemiologic Studies Depression Scale (CES-D).³¹ The participants were asked to indicate whether they completed the questionnaire with or without help.

Self-report version of the 16-item IQCODE. The IQCODE-SR contains the same items as the 16-item informant version, and these are rated on a 5-point scale, where 1 = much better, 2 = a bit better, 3 = not changed, 4 = a bit worse, and 5 = much worse.²⁵ To calculate the IQCODE-SR total score, the scores for each item were added together and divided by the number of completed items. Up to 2 missing items were allowed. The result was a score that ranged from

1 to 5. A variety of cutoff points have been proposed for dementia screening, but we chose to apply a cutoff point of 3.6, which lies within the range of previously adopted cutoff points (3.4-3.9).²⁴

GP identification. The GPs identified suspected cases of dementia on a list of their patients who were 75 years of age and older and lived at home.

Cognitive tests. Approximately 6 to 7 months after completing the health questionnaire, the participants underwent 2 brief comprehensive cognitive tests to measure current cognitive functioning: the MMSE32 and the 7 Minute Screen (7MS).^{33,34} The MMSE is the most widely used brief screening instrument to assess mental status, and the 7MS has been reported to be a useful tool for discriminating demented and cognitively impaired patients from cognitively intact patients.³⁴ The MMSE consists of 11 items and covers orientation, attention, calculation, memory, language, and praxis. The scores range from 0 to 30, with lower scores indicating greater impairment.³² The 7MS is a compilation of 4 cognitive tests: Benton Temporal Orientation Test (orientation in time), Enhanced Cued Recall (memory), Clock-Drawing test (visuospatial ability), and Verbal Fluency test (expressive language). The scores of the 4 subtests are summed up with a formula that indicates the probability of dementia (0% to 100%).^{33,34} Twenty trained interviewers administered the MMSE and the 7MS at the home of the participants, and research assistants interpreted the tests and calculated the test results. All the participants with suspected dementia, according to the tests, were advised to contact their GP or were referred to community nurses who specialized in geriatric care.

Analyses

The main outcomes were feasibility, homogeneity, and construct validity.

Feasibility. The response rate and proportion of missing data for each item were calculated, as well as the percentage and number of participants who received help in completing the IQCODE-SR. Furthermore, we performed a multiple regression analysis to identify the factors that are associated with self-reports on the IQCODE.

Homogeneity. We conducted exploratory principal component analyses to identify the number of meaningful factors of the IQCODE-SR. Identification of

meaningful factors was based on the Scree test and on the interpretation of the factor solution. Using the Scree plot,³⁵ we looked for a break between the factors with relatively large eigenvalues and those with smaller eigenvalues. Factors that appeared before the break were assumed to be meaningful. We determined homogeneity per identified factor. Homogeneity of the IQCODE-SR was checked with Cronbach's α , the item-total correlations, and item-item correlations, both in raw and imputed data. Missing values were replaced by series means. Cronbach's α between .70 and .90 is considered to be adequate,²⁶ and the items should moderately correlate with each other and with the total score between .20 and .80.26

Construct validity. We examined by means of Mann-Whitney tests whether there was a difference in median scores between men and women, participants with and without suspected dementia according to their GPs, and participants who completed the questionnaire with and without help. Moreover, we investigated the agreement of the IQCODE score with the cognitive condition of the person as assessed by the GP. Therefore, we performed a receiver operating characteristic analysis and calculated the area under the curve with its 95% confidence interval (CI). We also investigated associations between the IQCODE-SR and variables on the health questionnaire (ADL and IADL functioning, gender, level of education, last job level, depression) and the cognitive tests (7MS and MMSE) by calculating rank correlation coefficients (Spearman's r_s) and their 95% CIs. In calculating the correlation between the IQCODE score and level of education, last job level, and gender, we needed Spearman's correlation coefficients because these variables are on an ordinal level (ranks). Furthermore, plots of the IQCODE against 7MS, MMSE, ADL, IADL, and depression required conclusive Spearman's correlations because they did not show an ellipse. We checked whether mean and median IQCODE-SR scores increased with age, and we also checked whether outcomes on the hypotheses were similar for persons who completed the IQCODE-SR with and without help.

In estimating correlations between the IQCODE-SR and cognitive tests, we corrected for unit nonresponse attributable to noncontact both in the group of persons with IQCODE scores less than 3.6 and in the group of persons with scores of 3.6 and greater. Unit nonresponse is the situation in which entire questionnaires or test results are missing in a particular group.³⁶ In the group with scores less than 3.6,

some test results are missing because we only contacted a random sample of persons in this group. Meanwhile, some test results in the group with scores of 3.6 and greater are missing because we did not contact persons who met the criteria for exclusion from our randomized trial. To estimate 7MS and MMSE scores for all persons who completed the IQCODE-SR, including those who were not cognitively assessed, we made a poststratification estimation.³⁶ This weighting procedure is illustrated in Figure 1. We poststratified for IQCODE score; that is, we weighted on the basis of persons with IQCODE scores less than 3.6 versus those with scores of 3.6 and greater. Therefore, all persons in the same group were given the same weight.

Results

Figure 2 shows a flow chart of this study of the psychometric properties of the IQCODE-SR, in which 4823 persons, aged 75 years and older who lived at home, were approached. Of these, 2841 participants returned an IQCODE-SR and gave informed consent. Table 1 presents the characteristics of these 2841 participants. Their self-reports were used to investigate feasibility, homogeneity, and construct validity. Forty-four of the 55 GPs cooperated by identifying dementia cases on a list of their participating patients. Three hundred and thirteen of the 451 participants with IQCODE-SR scores of 3.6 and greater underwent cognitive tests, as well as 112 participants from a random sample of 200 persons with IQCODE-SR scores of less than 3.6 who agreed to undergo cognitive assessment. Although the random sample of 200 persons resembled the total group of persons with scores of less than 3.6, the 112 participants who underwent cognitive tests did not. Persons who completed the questionnaire with help had a lower probability of participation in cognitive tests (odds ratio [OR] = 0.54, 95% CI 0.32-0.89), whereas persons with a higher level of education had a higher probability of participation in cognitive tests (OR = 1.53, 95% CI 1.00-2.35). In addition, persons in the group with scores of 3.6 and greater who were tested did not resemble the total group of persons with scores of 3.6 and greater. Persons who completed the questionnaire with help had a lower probability of being tested (OR = 0.97, 95% CI 0.95-0.98), as did persons with ADL or IADL limitations (per point on the GARS: OR = 0.42, 95% CI 0.23-0.73).

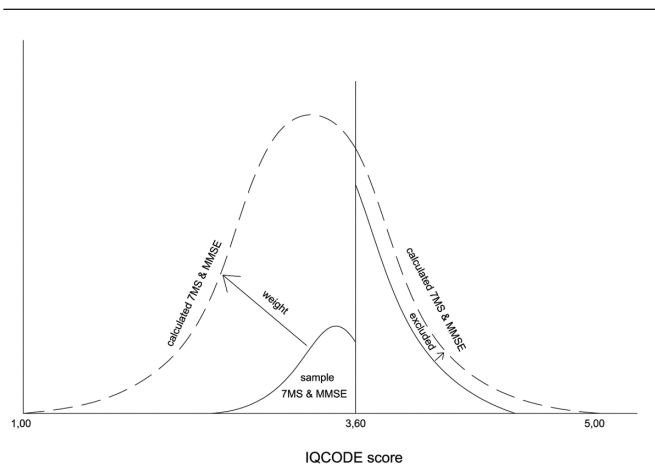


Figure 1. Poststratification estimation.

Feasibility

Of the 4823 older adults who were approached for the screening, 2841 returned a health questionnaire, including a completed IQCODE-SR, and gave informed consent (58.9%). Slightly older persons more often failed to return the questionnaire (mean age of nonrespondents 83.5 vs mean age of respondents 81.8, $t = 13.8$; $P < .001$), as did females (percentage of nonrespondents among females 41.3% vs 35.8% among males, $\chi^2 = 13.4$; $P < .001$). The percentage of suspected cases of dementia, according to the GPs, was higher among nonrespondents than respondents (10.9% vs 6.6%, $P < .001$). At item level, the items “learning to use a new gadget or machine around the house” and “learning new things in general” were the items that were most often not answered (7.3% and 7.0%, respectively). The first and last item of the IQCODE-SR, “remembering things about family and friends” and “using his/her intelligence to understand what’s going on and to reason things through,” were answered most often (2.5% and 3.0% missing, respectively). No differences were found between men and women in item response. We found that 1723 persons completed their questionnaire independently, 915 had help, and 203 did not answer this question.

Factors associated with the self-rated IQCODE score were depressive symptoms, ADL and IDAL functioning, age, gender, and help in completing the questionnaire (adjusted R^2 0.27; IQCODE = 2.33 + 0.02·depressive symptoms ($P = .000$) + 0.01·(I)ADL functioning ($P = .000$) + 0.01·age ($P = .003$) – 0.11·gender ($P = .000$; codes: 1 = men, 2 = women) + 0.19·help ($P = .000$; codes: 1 = no help, 2 = help). Thus,

respondents with more depressive symptoms, respondents with more ADL and IADL disabilities, male respondents, respondents who had help in completing the questionnaire, and older respondents were more likely to have high IQCODE scores.

Homogeneity

The IQCODE-SR measured a single construct. Principal component analyses showed a large general factor accounting for 53% of the variance, with subsequent factors accounting for much smaller percentages (1.6% to 7.3%). In addition, the Scree plot showed a distinct break before factor 2, suggesting that only 1 factor was meaningful. For homogeneity we found Cronbach’s $\alpha = .94$, range of item–total correlations (0.62–0.72), and range of item–item correlations (0.36–0.71). The results were similar for imputed and raw data.

Construct Validity

The realized outcomes and acceptance of the 8 hypotheses are summarized in Table 2. We also checked whether the realized outcomes were similar across persons who completed the IQCODE-SR with and without help, and we found that they were similar, with the exception of the hypothesis concerning age. Among persons who completed the IQCODE-SR independently, the mean scores did not increase with age; they only increased with age in persons who completed the IQCODE with help.

Discussion

Self-report on the IQCODE is a new way of identifying older adults with dementia in the community, and therefore we investigated psychometric properties (feasibility, homogeneity, and construct validity) of these self-reports.

Feasibility

The achieved response rate of 58.9% for the health questionnaire was in line with what was expected with such an approach in a population of older adults,³⁷ although a higher response may be possible.³⁸ Selective nonresponse to the screening is likely, because the percentage of suspected cases of dementia, according to the GPs, was higher among nonrespondents than among respondents. In addition, nonrespondents in another study were found to have higher rates of

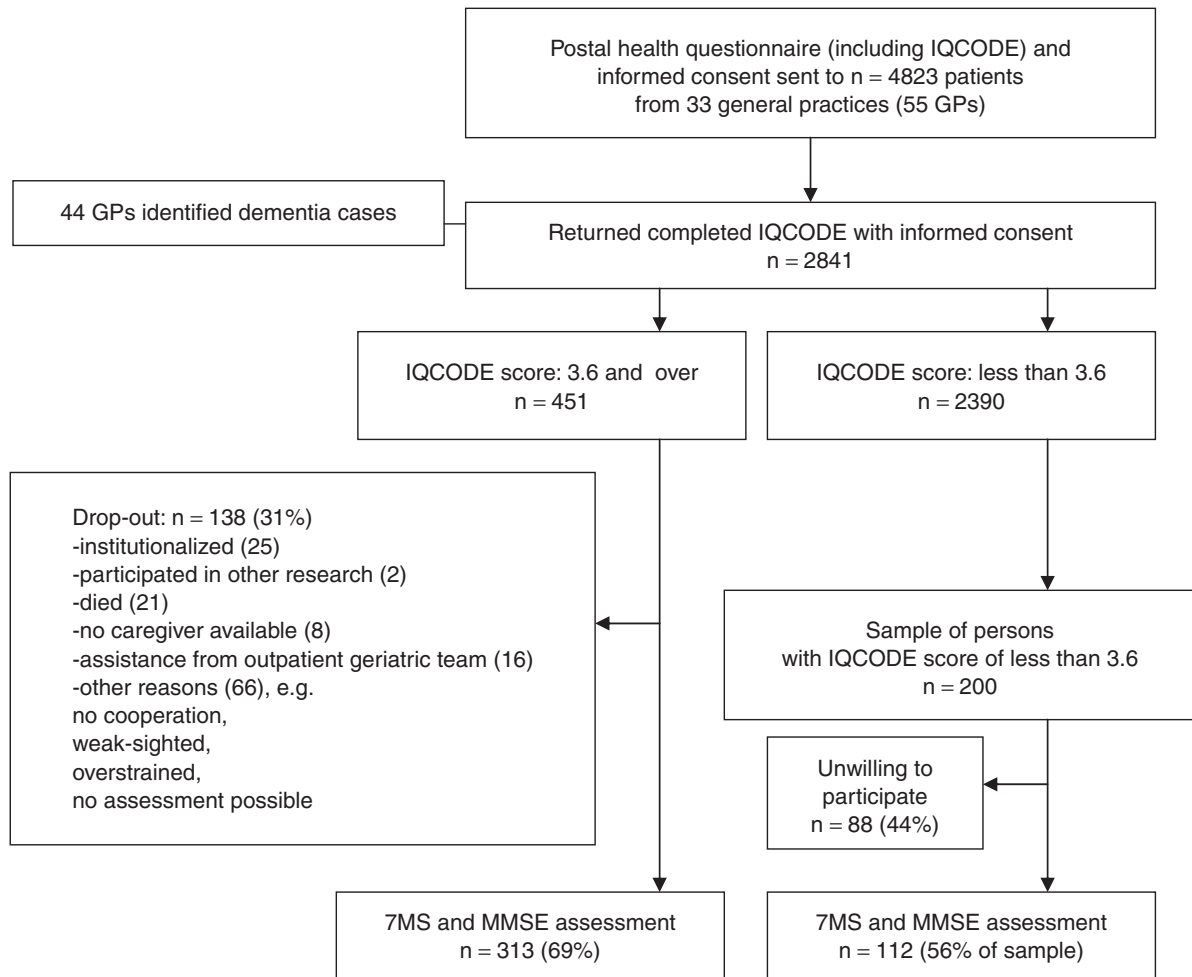


Figure 2. Flow chart of the study.

Table 1. Characteristics of All Persons Who Completed an IQCODE-SR (n = 2841)

Characteristics	Value	No.	% Missing
Sociodemographics			
Age, mean + SD (range)	80.9 + 4.0 (74.7-99.4)	2841	0
Gender, female, n (%)	61.7	2841	0
Married, n (%)	42.6	2647	6.8
Widow(er), n (%)	41.5	2647	6.8
Having an informal caregiver, n (%)	61.7	2579	9.2
Level of education: primary school or no education, n (%)	40.3	2649	6.8
Last job level: semiskilled or skilled job, n (%)	91.0	2594	8.7
General (health) functioning			
Self-reported health: fairly or good health, n (%)	82.3	2647	6.8
Chronic disease: 1 or more chronic diseases, n (%)	75.1	2619	7.8
ADL, mean + SD (range)	15.2 + 5.6 (11-44)	2577	9.3
IADL, mean + SD (range)	12.3 + 5.5 (7-28)	2459	13.4
Depression, CES-D, mean + SD (range)	13.0 + 7.6 (0-49)	2777	2.3
Cognitive decline, IQCODE, mean + SD (range)	3.3 + 0.4 (1-5)	2841	0

NOTE: ADL = activities of daily living; IADL, instrumental activities of daily living; CES-D, Center for Epidemiologic Studies Depression Scale; SD = standard deviation.

Table 2. Tested Hypotheses on Construct Validity of the IQCODE-SR

We Expected	Value Outcome Found	Hypothesis Accepted?
1. A negative association r_s $-(0.30-0.70)$ with measures of current cognitive functioning.	Association with current cognitive functioning: 7MS (r_s -0.36 , 95% CI: $-[0.48, 0.28]$; $n = 424$) MMSE (r_s -0.32 , 95% CI: $-[0.43, 0.24]$; $n = 424$)	+
2. Higher mean and median IQCODE-SR scores in patients with suspected dementia, according to their GP, than in other patients.	Mean and median scores were higher in patients suspected by their GP (3.7, respectively 3.6) than in other patients (3.3, respectively 3.1), (Mann-Whitney $U = 75\ 120.000$; $P < .001$) AUC: 0.72, 95% CI: $[0.66-0.77]$	+
3. A moderate positive association r_s (0.40-0.60) with ratings of disabilities in ADL and IADL functioning.	Association with IADL functioning: ($r_s = 0.34$; 95% CI: $[0.31-0.39]$; $n = 2459$) Association with ADL functioning: ($r_s = 0.27$; 95% CI: $[0.24-0.32]$; $n = 2577$)	-
4. Higher mean and median IQCODE-SR scores in the oldest persons than in the youngest.	Mean and median IQCODE scores increased with age; we recoded age into categories of 5 y and found that mean and median IQCODE scores increased from 3.2, respectively 3.1 (age 75-80, $n = 1369$) 3.3, respectively 3.2 (age 80-85, $n = 1042$) 3.4, respectively 3.3 (85-90, $n = 338$) 3.5, respectively 3.4 (90-95, $n = 84$) to 3.8, respectively 3.7 (95-99, $n = 8$)	+
5. Similar mean and median IQCODE-SR scores for men and women.	Mean and median IQCODE-SR scores were similar for men (3.3, respectively 3.2) and women (3.3, respectively 3.1), (Mann-Whitney $U = 925\ 200.5$; $P = .172$)	+
6. A negligible association r_s $(-0.10$ to $0.10)$ with level of education and last job level.	Association with level of education: (r_s -0.10 ; 95% CI: $-[0.14-0.06]$; $n = 2649$) Association with last job level: (r_s -0.02 ; 95% CI: $-[0.06-0.02]$; $n = 2594$)	+
7. A small positive association r_s (0.20-0.45) with depression.	Association with depression: (r_s 0.38; 95% CI: $[0.36-0.44]$; $n = 2777$)	+
8. Higher mean and median IQCODE-SR scores in persons who completed the questionnaire with help than in those who completed the questionnaire independently.	Mean and median scores were higher (3.5, respectively 3.3) in persons who completed the questionnaire with help than in persons who completed the questionnaire independently (3.2, respectively 3.1) (Mann-Whitney $U = 1071.500$; $P = .041$)	+

NOTE: + = accepted; - = rejected; IQCODE-SR = self-report Informant Questionnaire on Cognitive Decline; GP = general practitioner; ADL = activities of daily living; IADL = instrumental activities of daily living; 7MS = 7 Minute Screen; CI = confidence interval; MMSE = Mini Mental State Examination; AUC = area under the curve.

functional and cognitive impairment.^{39,40} This limits the potential for implementation, because such a selective nonresponse could result in poor detection of dementia symptoms. A third of the participants received help in completing the questionnaire, but we do not consider this to be an immediate threat to feasibility. A threat to validity is the risk that the cognitively impaired persons without insight might have completed a questionnaire while overestimating their cognitive functioning, and cognitively impaired persons who realized that they needed help in com-

pleting the questionnaire did not ask for assistance. However, we do not have any information on this issue. The proportion of unanswered items on the IQCODE-SR was acceptable (2.5% to 7.3% missing answers for each item).

Respondents with more depressive symptoms, respondents with more ADL and IADL disabilities, male respondents, respondents who had help in completing the questionnaire with help, and older respondents were more likely to have high IQCODE scores. These factors affect the IQCODE score.

Homogeneity

The IQCODE-SR measured one distinct construct and showed good homogeneity, just like the informant version,^{24,41} and Cronbach's α was above .90. This can be attributed to a high level of item redundancy or too many items in the scale.²⁶ Therefore, if items are to be deleted, the ones with the highest percentages of missing answers are the first candidates to be investigated. In our study, the items "learning to use a new gadget or machine around the house" and "learning new things in general" had the highest percentages of missing answers.

Construct Validity

The majority of hypotheses on construct validity were confirmed, but one was rejected. We expected a moderate positive association between IQCODE scores and ADL and IADL functioning but found a weak positive association. However, we do not know how the informant version performs with regard to ADL and IADL functioning, because no previous research has focused on this subject.

The strength of this study is the application of the IQCODE-SR to a large general practice population of older adults. However, the study also has a few limitations. First, selective nonresponse to the screening is likely. Nonrespondents in another study had higher rates of functional and cognitive impairment.⁴⁰ Second, information bias may have occurred, because cognitively impaired persons without insight might have completed a questionnaire, while overestimating their cognitive functioning. We remain uncertain about the validity and number of self-reports of cognitively impaired subjects without insight. Third, cognitive assessment of all participants was not possible. Participants who were at risk of having dementia, such as those who received assistance from an outpatient geriatric team, were excluded from cognitive assessments. The exclusion of these persons, who more often had ADL and IADL limitations and received help in completing the questionnaire, may have weakened the estimated correlations between the IQCODE-SR and current cognitive functioning. Fourth, 425 participants underwent cognitive tests 6 to 7 months after completing the IQCODE-SR. However, we expect that this interval had very little influence on correlations between the IQCODE and cognitive tests with regard to the rather low incidence of dementia.

Conclusions

The IQCODE-SR meets the basic requirements of a good measurement; the psychometric properties of the IQCODE-SR demonstrated acceptable feasibility and good homogeneity, and most of the hypotheses on construct validity were confirmed. The questionnaire could perhaps be made more efficient by omitting redundant items. Nevertheless, further research is necessary to determine the IQCODE-SR's accuracy to identify older adults who are at risk of dementia. We recommend specialist diagnosis of all participants as the validity standard in future studies on diagnostic accuracy. The influence of selective nonresponse to the IQCODE-SR from those who are at risk of dementia should also be considered. In addition, the extent to which cognitively impaired persons can validly complete the IQCODE with and without assistance needs further evaluation. Therefore, we recommend a comparison of the conventional IQCODE with the self-rated IQCODE.

Consensus on the value of screening for dementia among older adults has not yet been achieved. The potentially negative effects of labeling have to be weighted against the importance for patient and family of prior knowledge and preparation.⁴² Therefore, we recommend evaluation of this importance in future research as well as assessment of the perception of the respondents with regard to feedback on their cognitive capacities, in order to investigate the consequences of early detection of dementia. This information will contribute to the debate on screening.

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All authors critically read and approved the final version of the manuscript. APDJ was responsible for the inclusion of participants, data collection, analyses, interpretation of data, and preparation of the manuscript. HPJvH wrote the study protocol and supervised the project. HWJvM supervised the project. GN supervised the project. CG provided advice on methods and performed poststratification estimation. RdV provided advice on methods. WABS supervised the project.

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