

Attitude of nurses towards older patients: Content validation of the Dutch 'Older Patients in Acute Care Survey'

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DUTCH SUMMARY

Titel; Attitude van verpleegkundigen ten opzicht van ouderen; Inhoudsvaliditeit van de Nederlandstalige 'Older Patients in Acute Care Survey'.

Inleiding; Wereldwijd groeit het aantal ouderen en chronisch zieken waardoor meer verpleegkundigen met ouderen worden geconfronteerd. Vele verpleegkundigen hebben echter een negatieve attitude ten opzichte van ouderen waardoor inzicht in deze attitude nodig is. 'Older Patients in Acute Care Survey' (OPACS) meet de attitude van verpleegkundigen en kent goede inhoudsvaliditeit en betrouwbaarheid in VS en Australië, echter in Nederland is geen enkele gevalideerde en betrouwbare schaal bekend.

Doel en onderzoeksvraag; Doel van deze studie is het verkrijgen van een gevalideerd en betrouwbaar meetinstrument, die de attitude van verpleegkundigen ten opzichte van ouderen meet in Nederland. De onderzoeksvraag luidt: Wat is de inhoudsvaliditeit van de Nederlandse versie van OPACS in het ziekenhuis?

Design; Beschrijvend klinimetrisch onderzoek met cross-sectioneel design.

Methode; OPACS is onderzocht in drie stappen: vertalen OPACS; testen vertaling middels een pilot onder vijf verpleegkundigen; bepalen inhoudsvaliditeit door tien experts en bepalen beoordelaarovereenstemming.

Resultaten; Schaal-Inhoudsvaliditeit Index is <0.90 voor zowel het totale instrument als sectie A en sectie B. Het gemiddelde van duidelijk Nederlands en passend voor meten van attitude is respectievelijk 89.20% en 75.55%. De overeenkomst tussen respondenten is $k \leq 0.30$.

Conclusie; OPACS bevat goed Nederlands taalgebruik en is passend voor meten van attitude. De mate van relevantie en beoordelaarovereenstemming is echter laag waardoor de huidige versie van OPACS nog niet klaar is voor gebruik.

Aanbevelingen; OPACS dient verbeterd te worden door het verwijderen van items die niet voldoen aan inhoudsvaliditeit waarna verder klinimetrisch onderzoek noodzakelijk is.

Relevantie voor praktijk; Het is belangrijk om in de praktijk gevalideerde meetinstrumenten te gebruiken. Dit onderzoek geeft richting aan verbetering van OPACS.

TREFWOORDEN

Attitude, Verpleegkundige, OPACS, Inhoudsvaliditeit, Vertalen

ENGLISH ABSTRACT

Title; Attitude of nurses towards older patients; Content validation of the Dutch 'Older Patients in Acute Care Survey'.

Background; Worldwide the population of older people with multimorbidity rises and more nurses are confronted with them. However, several nurses have a negative attitude towards older people

which makes insight in attitude necessary. 'Older Patients in Acute Care Survey' (OPACS) measures nurses' attitudes towards older patients and has good content validity and reliability in U.S. and Australia, however, in the Netherlands is not any validated and reliable scale known.

Aim and research question; The aim was to contain a validated and reliable measurement scale in the Netherlands, which measures the attitude of nurses toward older patients. The research question was: What is the content validity of the Dutch OPACS in a hospital setting?

Design; Descriptive clinimetric study with cross-sectional design.

Method; OPACS was examined in a three-step process: forward-backward translation of OPACS; testing translation with a pilot among five nurses; testing interrater reliability and content validity of OPACS using ten experts.

Results; Scale-Content Validity Index is <0.90 for the entire scale as well as for section A and section B. The average of clarity of wording and appropriateness for measuring attitude is respectively 89.20% and 75.55%. The interrater reliability is $k \leq 0.30$.

Conclusion; OPACS has good clarity of wording and is appropriate for measuring attitude. The degree of relevance and interrater reliability is low, which makes the current Dutch version of OPACS not ready for use.

Recommendations; Content of OPACS should be refined by removing items who were not meeting criteria of content validity whereby further clinimetric research is necessary.

Relevance to clinical practice; It is important to work with validated measurement scales. This study gives direction to further improve OPACS.

KEYWORDS

Attitude, Nurse, OPACS, Content Validity, Translation

INTRODUCTION

Worldwide the population of older people with healthcare needs is increasing. Between 2000 and 2050, the world's population of older people aged 60 and over will rise from 600 million to 2 billion. (1) In the Netherlands the number of older people aged 65 and over is expected to increase from 2.6 million to 4.6 million between 2011 and 2039 (2). Of these, one in five have two or more chronic diseases and will rise to one in three in the age of 75 and older (3).

As a result of aging and multimorbidity more nurses are confronted with older patients and more nurses are needed to provide in this care of the future. Healthcare systems and healthcare providers are facing a challenge to provide in these rising needs.(4)

Nurses generally make a conscious choice to work with certain patients. This choice is influenced among others things by the attitude of nurses.(5) Attitude is described as the way a person thinks about something or someone and is a result of a cognitive, emotional and behavioural component

(6,7). The cognitive component implies knowledge and value of a phenomenon. The emotional component implies a person's liking or disliking, based on feelings. The behavioural component implies someone's behavior. Those three components influence each other and ultimately determine the attitude of nurses.(6,8)

Literature shows that society and in particular nurses have a negative attitude towards older patients. Among other things, this is caused by association with deterioration of health, decreased mobility and declining mental state, negative experiences with older people and lack of geriatric knowledge.(9-11) This negative attitude will affect the number of nurses who want to work with older people and also ensures that nurses have insufficient focus on specific geriatric problems because of inadequate knowledge (5,9,12). The negative attitude of nurses ultimately will have a negative impact on the quality of care and in the end on the quality of life of older patients (5,9,13). Thus, attention for the needs of older patients is important. Nurses should be more alert of complications and focused on the prevention of further loss of functionality by constantly highlighting these needs. A change in knowledge and attitude of nurses is needed to achieve this alertness (14).

To improve the attitude of nurses, healthcare providers need to understand the current attitude (15). This can be achieved by measuring attitude using a measurement scale with good clinimetric qualities such as internal consistency, reproducibility, validity, responsiveness, interpretation and feasibility.(16)

Literature refer to several scales which measures attitude. However, only one measurement scale measures the attitude of nurses toward older patients in a hospital setting and is adequately assessed on clinimetric qualities (17). Courtney (2000) developed this scale named 'Older Patients in Acute Care Setting' (OPACS) which includes all components of attitude by measuring attitude, knowledge and skills of nurses working with older patients in hospitals (15,18). OPACS consists of three parts. Section A measures practical experience of nurses with 36 items. Section B measures general opinions with 50 items. Section C, the 'Palmore's Fact on Aging Quiz', is another measurement scale which is added to section A and B and measures general beliefs about older patients. Items of section A and B are answered by a five point Likert scale (1=never and 5=very frequent). Section C is answered with true, false or don't know.(15,18)

OPACS is adequately assessed on clinimetric qualities. The Australian version shows good face validity and high reliability (Kappa 0.756) and the United States version has a high content validity (CVI 0.918) (15,18). OPACS has not been tested in the Netherlands regarding its clinimetric qualities within Dutch use, such as content validity. There is also no other instrument used in the Netherlands to measure nurses' attitudes towards older patients.

Problem statement

Given the increase of aging and multimorbidity in combination with a negative attitude among nurses, it is necessary to understand the attitude of nurses towards older patients (9,14). To achieve this, a validated and reliable measurement scale is needed. OPACS can be used to identify the attitude of nurses and is already validated in the United States and Australia. However, there is not any clinimetric quality information known about OPACS in the Netherlands or any other validated and reliable scale available, which measures the attitude of nurses towards older patients.

Aim

The aim of this study is to contain a validated and reliable measurement scale in the Netherlands, which measures the attitude of nurses toward older patients.

Research question

What is the content validity of the Dutch 'Older Patients in Acute Care Survey' in a hospital setting?

- a. What is a reliable translation of OPACS in the Netherlands?
- b. What is the content validity of the Dutch version of OPACS on every individual item and the overall instrument?
- c. What is the interrater reliability between answers of participants on individual items and the overall instrument?

METHOD

The study consisted of a three-fase process: translation of OPACS in Dutch; testing the translated OPACS; and determine content validity of OPACS and interrater reliability of participants.

Translation

Design

The United States version of OPACS section A and section B was translated into Dutch using forward-backward translation method because this was a commonly used method and well described in the literature (19,20). Section C was not translated because it was another measurement scale which was added to OPACS and it measures beliefs about older patients in general and not specific in a hospital setting (18). The United States version was chosen because it was already an improved version and the language was easier to understand and already known in the Dutch culture.

Participants and data collection

Two independent bilingual persons translated OPACS into the Dutch language in November 2011. These translations were compared with each other and the original version of OPACS by the first

two authors. Any ambiguities and discrepancies were discussed whereby consensus was achieved. The Dutch translation was translated back into the source language by one translator who was unfamiliar with the original wording. The back-translation was compared with the original items and their backward-translated counterparts to detect possible alterations resulting from the translation by the first two authors. The first Dutch version of OPACS was produced in December 2011 (Appendix 1).

Testing translated OPACS

Design

The translated OPACS was tested on clarity of wording with a small pilot.

Participants

Participants were selected from the network of the first author in December 2011. Inclusion criteria were registered nurses working with adult and older patients. They were asked to participate by the first author. After consent participants were informed by e-mail with an information letter, response-instruction and measurement scale.

Measurement scale

All items from section A and section B were tested on clarity of wording using labels 0=not clear and 1=clear. Participants could also give suggestions to improve items.

Testing content validity and interrater reliability

Design

Content validity of OPACS and interrater reliability of participants were tested using a descriptive clinimetric study with a cross-sectional design because OPACS was tested one moment in time (19,21).

Participants

Testing content validity was recommended with five to ten participants. With a lower sample size should all participants score good content validity however coincidence of a deviant score should be considered. Although, a larger sample size will not have a better effect.(16,22)

Participants needed to be able to speak, read and write Dutch, had a bachelor degree of nursing, worked as a registered nurse in geriatrics for at least five years or worked in a profession that requires knowledge of geriatric nursing.

Participants were approached, using convenience sampling, from the network of the first two authors consisting of teachers, geriatric nurses and from the Network of Geriatric Nurses of The Netherlands. They were asked to participate by phone or e-mail in December 2011 and January

2012. After consent participants received an information-letter with extended information, response instruction, measurement scale and informed consent-form.

Measurement scale

Content validity was determined by 'Method Lynn' consisting of three variables named relevance, clarity of wording and appropriateness for measuring attitude. This method is commonly used to determine content validity and is well described in the literature (19,22,23).

All individual items from section A and section B were tested on these three variables. Section C contained the measurement of relevance and appropriateness for measuring attitude about the entire scale and section D contained demographic information about the participant. Participants could also give other remarks.

Relevance was measured with a four-point Likert scale with labels 1=not relevant and 4=highly relevant. Clarity of wording was measured using labels 0=not clear and 1=clear. Appropriateness for measuring attitude was measured using labels 0=not appropriate and 1=appropriate.

Analysis

Translation

The translation was analyzed by summarizing the number of changes.

Testing translated OPACS

Data were processed in a spreadsheet which provide an overview of data and contained input for correcting items.

Testing content validity and interrater reliability

Data were analyzed using Statistical Package for Social Sciences (SPSS) version 18.0.

Relevance was analyzed with the degree of relevance using Individual-Content Validity Index (I-CVI) and Scale-Content Validity Index (S-CVI). I-CVI was computed as follows; summarize score 1 and 2 and labeled them as 'not relevant' and summarize score 3 and 4 which were labeled as 'relevant'. I-CVI was the result of dividing the 'relevant' score by the number of participants. Lynn (1986) recommends when there are five or more participants I-CVI should be ≥ 0.78 which is a reasonable representation of possible rating. The S-CVI was the average of I-CVI computed by summarizing all I-CVI dividing by the number of items for the entire scale. The same was done with section A and section B separately. An acceptable S-CVI contained ≥ 0.90 .(19,22,23)

Percentage and average were used for analyzing clarity of wording and appropriateness for measuring attitude. Frequency, percentage, average, median, standard deviation, minimum score and maximum score were used for analyzing demographic data.

Missing values in variable relevance, clarity of wording, appropriateness for measuring attitude and demographic characteristics were excluded from analyzing.

Interrater reliability was analyzed with Fleiss Kappa because it measures the chance of agreement between more than two participants. A minimum of 0.60 is acceptable and ≥ 0.75 is excellent agreement.(19) To calculate Fleiss Kappa, values should not be missing in the database, however this study contained some missings. Those missing values were imputed with 'least common response' and 'most common response' in order to calculate the range of Fleiss Kappa whereby the real Fleiss Kappa will be in between.

Ethical Approval

In the extended information for participants, informed consent was described. Participants, who want to participate in the study, signed the informed consent-form. Participation was voluntary and information gained was analyzed anonymously. Ethical approval by a Medical Research Ethics Committee was not needed, because patients were not included in the study and the used measurement scale did not burden participants (24).

RESULTS

Translation

Small differences and system errors were found between forward and backward translation on 23 items of section A and 40 items of section B. Three items of section A were unchanged and in section B four items. Eventually nine items of section A and six of section B were completely corrected.

Testing translated OPACS

All participants returned the questionnaire (n=5) with no missing values. They gave 19 suggestions of improvement for section A and 36 suggestion for section B. These involved changes in words and sentence structure. Comments were made about words such as 'difficult' and 'simple language'. Participants found these could be interpreted in several ways and could also suggest a positive as well as negative attitude. Finally, changes were made in ten items of section A (item 4,7,8,10,13,14,22,23,24,25) and in nine items of section B (item 7,13,14,19,20,25,40,44,46). All were based on changes in words or sentence structure.

Testing content validity and interrater reliability

Characteristics of participants

Seventeen experts in geriatric nursing were asked to participate. Two participants did not participate (reason unknown). Four participants withdraw from the study with reasons such as not having time, after consent yet not agree to participate, not having enough knowledge and not being satisfied with its own activities. One participant dropped off halfway because she found the scale

tiring and long. Finally ten participants were included (Figure 1), of which eight had at least one missing value.

Demographic data was known of nine participants (Table 1). One participant filled in the questionnaire together with colleagues so demographic data were unknown. The education of five participants was Master of Science-level. The average length of time working in healthcare was 24 years (SD 8.7; range 9-32). Seven participants worked in geriatric nursing and two were teachers of nursing.

Relevance

For the entire scale was the S-CVI 0.62, for section A was the S-CVI 0.61 and section B was the S-CVI 0.64. Section A had thirteen items (36%) and section B twenty-two items (44%) with a I-CVI of ≥ 0.78 . (Table 2)

Clarity in wording

The average of participants who scored the entire scale clear in wording was 89.20%. The average score of section A was 92.07% and for section B 87.13%. Two items scored low on clarity in wording with a score $\leq 30\%$. (Table 2)

Appropriateness for measure attitude

The average of participants who scored the entire scale appropriate for measuring attitude was 75.55%. The average score of section A was 73.64% and section B was 76.93%. Eight items scored low on appropriateness for measuring attitude with a score $\leq 30\%$. (Table 2)

Interrater reliability

All variables had a low Fleiss Kappa of ≤ 0.60 . The entire scale showed a Fleiss Kappa for relevance between 0.09 and 0.11, for clarity of wording between 0.14 and 0.16 and for appropriateness between 0.18 and 0.21. Section A had a Fleiss Kappa between 0.12 and 0.15, for clarity of wording between 0.25 and 0.30 and for appropriateness between 0.24 and 0.26. Section B showed a Fleiss Kappa between 0.06 and 0.07, for clarity of wording between 0.07 and 0.09 and for appropriateness between 0.13 and 0.17. (Table 3)

Other remarks

Eight participants gave remarks on OPACS what resulted in a variety of subjects. Five participants made comments about items which were unclear and not distinctively formulated. For example the word 'difficult' or 'more socially' could be interpreted in multiple ways. Four participants indicated that the comparison between old and young people was not relevant for measuring attitude. According to two participants, the response-options were not appropriate for the items. There were also two typos found. Multiple suggestions for improvement were given by five participants such as replacing 'to watch' in 'to accompany' and 'encourage' to 'support'. Two participants said that items were missing such as 'a delirium is a complication' or 'It is right if the possibility exist to differ from

the usual protocol when this positively affect the care of older patients'. Finally, one participant found the scale too long.

DISCUSSION

This study presents the translation and validation of the Dutch version of OPACS; following methodological procedures described in the literature (19,22,25). The translation of OPACS results in the first Dutch version of OPACS, whereby the pilot confirms a good translation. Content validity is measured with the degree of relevance, clarity of wording and appropriateness for measuring attitude. However, it shows not all good requirements, which makes that the current version of the Dutch OPACS is not yet adequate for use. Relevance meets not the criteria ($S-CVI < 0.90$), however, the average clarity of wording is pretty good (89.20%) meaning that most items are correctly formulated. The average appropriateness for measuring attitude is also good (75.55%) which means that multiple items seems to be adequate for measuring the attitude of nurses. Analysis of content validity for the entire scale compared to section A and section B give the same outcome. The interrater reliability shows a low Fleiss Kappa ($k \leq 0.60$) which means that there are a lot of differences between answers of participants. This influence the results of content validity, however, it would be amazing if all 86 items are judged the same by all participants.

The results of this study are not recognizable with existing literature about content validation of OPACS. Malmgreen (2009) states that the U.S. version of OPACS has high content validity (entire scale $S-CVI=0.92$; section A $S-CVI=0.92$; section B $S-CVI=0.97$) (15). The content validity of the Dutch version is low (entire scale $S-CVI=0.62$; section A $S-CVI=0.61$; section B $S-CVI=0.64$). Those large deviations between CVI of the Unites States and Dutch version might be caused by cultural differences such as items which are not recognizable in the Dutch setting. After all, when items scored low on relevance, the item scores also low on clarity of wording and appropriateness for measure attitude. The deviations between CVI could also be caused by the number of participants. Literature indicates that content validity should be demonstrated with five to ten participants (16,22). This study uses ten participants, however Malmgreen (2009) uses a smaller number of participants ($n=4$) which makes the coincidence of like-minded larger (15).

To rely and understand the results of the study some limitations should be taken into account. First, the translation and pilot shows that OPACS is translated well. However, during the translation the first two authors discuss many items which shows that certain items or words are difficult to translate and also explains the number of changed items. The Dutch language does not have a sufficient specific and unambiguous translation for certain words which could also be culture related. In addition, during the translation the persons involved did not discuss the translation as a plenary group. This all have affect on the translation (20). Secondly, data of content validity

contains missing data. In general is seen, when values are missing on relevance, the value is also missing on clarity of wording and/or appropriateness for measure attitude. This is probably caused by participants who could not handle items in relation to attitude of nurses, participants who do not recognize items in the Dutch setting, or participants who accidentally forget to score the item. However, the way how is dealt with missings reduces the influence on results.(26) Final, some participants found the questionnaire to long and time consuming which probably affects the answers of participants.

The strength of this study is that it is part of an international activity. The Netherlands, Australia and Unites States are participating in a research group about this subject and in the narrow future, South-Africa will participate as well. The intention is to share findings and to validate OPACS in multiple countries. Information of this study could also give new insight in validation and measuring attitude in general.

CONCLUSION

OPACS is translated to the first Dutch version of OPACS. The pilot of the translated OPACS confirms a good translation. Testing content validity shows a low score on relevance, however, less than half in section A (36%) and section B (44%) of the individual items showed acceptable I-CVI. The Dutch OPACS meets good criteria for clarity of wording and appropriateness for measuring attitude for the entire scale, section A and section B. The range of interrater reliability was also too low for achieving an acceptable chance of agreement between participants. This makes that the current version of OPACS did not meet all criteria for good content validity and do not justify the use of the Dutch version of OPACS. The main limitation of the study was that certain words were difficult to translate because there were not sufficient specific and unambiguous translations available in Dutch which could have affected the content of OPACS.

RECCOMENDATIONS

This study shows that content validity of the Dutch version of OPACS is not promising and indicates that OPACS should be refined by removing items which are not meeting the criteria of content validity. This makes OPACS smaller and also more manageable. After removing items further clinimetric research should done to investigate validity.

RELEVANCE TO CLINICAL PRACTICE

Due to the aging population in combination with attitude of nurses towards older patients, it is important to work with measurement scales which are validated. This study does not show the

desired content validity, but will give an overall direction to improve the content of OPACS and give input for further research about attitude of nurses towards older patients in hospitals.

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CONTRIBUTIONS

Study design: AvS, JH, LS en DO; Analysis: AvS, JH, CK, JD; final text: AvS, JH, JD, LS, DO.

CONFLICT OF INTEREST

Non declared

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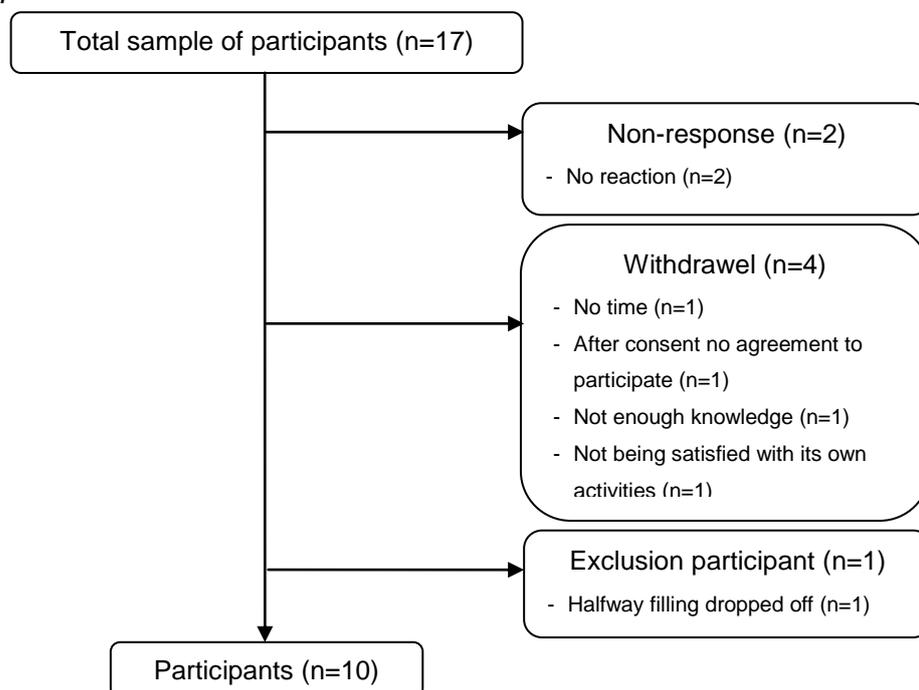
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FIGURE

Figure 1: Flowchart respondents



TABLES

Table 1 Demographic characteristics

	N (%)
Age	44.11 (9.28)*
Gender	
Female	8 (88.89)
Highest qualification	
Bachelor in Nursing	1 (11.11)
Post-Bachelor in Nursing	2 (22.22)
Master of Science in Nursing	5 (55.56)
Different	1 (11.11)
Current area of practice	
Geriatric nursing	6 (66.67)
Teaching on bachelor level	2 (22.22)
Other in healthcare	1 (11.11)
Job	
Geriatric nursing specialist	4 (44.44)
Teaching Geriatrics	2 (22.22)
Geriatric nursing expert	1 (11.11)
Nurse Practitioner	1 (11.11)
Geriatric nurse & student nursing science	1 (11.11)
Employment	
Fulltime	5 (55.56)
Post registration experience	24.22 (8.70)*
Post registration experience current area of practice	6.22 (3.84)*

* mean (sd)

Table 2 Analyzing content validity of the Dutch OPACS

OPACS section A		Content validity		
		I-CVI	Clarity of Dutch wording (%)	Appropriateness for measure attitude (%)
item 01	I find older patients difficult to care for	0.90	90.00	70.00
item 02	I find older patients more time consuming than younger patients	0.90	100.00	90.00
item 03	I find it necessary to observe older patients more closely than I observe younger patients	0.60	100.00	60.00
item 04	I am more likely to speak in simple language to an older patient than to a younger patient	0.60	88.89	66.67
item 05	I tend to speak slower when I talk with an older patient	0.60	100.00	100.00
item 06	I tend to speak louder when I talk with an older patient	0.60	100.00	90.00
item 07	I tend to speak more socially with an older patient	0.11	30.00	22.22
item 08	I tend to speak more socially with a younger patient	0.11	30.00	22.22
item 09	I am more likely to use terms of endearment (i.e. sweetie, honey") with older female patients than with younger female patients	0.60	100.00	70.00
item 10	I am more likely to use terms of endearment ("pops" or "gramps") with older male patients than with younger male patients	0.60	100.00	70.00
item 11	I allow extra time when I am going to admit an older patient	1.00	100.00	100.00
item 12	I find it more difficult to obtain a comprehensive health history from an older patient than a younger patient	0.80	80.00	60.00
item 13	I use information gathered during an older patient's admission to plan their care	1.00	100.00	100.00
item 14	I use a health assessment tool specifically designed for older patients	1.00	88.89	90.00
item 15	I find it necessary to watch confused older patients closely	1.00	77.78	100.00
item 16	I am more likely to use some form of restraint on an older patient than on a younger patient	0.80	100.00	100.00
item 17	I offer/ order personal hygiene assistance for older patients more often than for younger patients	0.20	90.00	60.00
item 18	I ask older patients if they require assistance with their activities of daily living more often than] ask younger patients	0.70	100.00	90.00
item 19	I have difficulty finding an older patient's pulse	0.10	90.00	10.00
item 20	I ask younger patients if they have incontinence problems	0.10	100.00	30.00
item 21	I ask older patients if they have incontinence problems	0.50	100.00	90.00
item 22	I involve a younger patient's family/ care-giver in their care	0.20	100.00	40.00
item 23	I involve an older patient's family/ care-giver in their care	0.90	100.00	100.00
item 24	I explain medications more than once to older patients to ensure understanding	0.90	100.00	100.00
item 25	I am less likely to encourage self-medication (i.e. PCA, insulin pump, inhaler) while in the hospital to an older patient than a younger patients	0.70	90.00	90.00
item 26	I ask older patients if they have pain more often than I ask younger patients	0.50	100.00	80.00
item 27	I ask older patients if they require pain relieving medication more often than I ask younger patients	0.60	100.00	80.00
item 28	I check an older patient's understanding of patient controlled analgesia (PCA) more often than a younger patient's	0.50	100.00	90.00

OPACS section A		Content validity		
		I-CVI	Clarity of Dutch wording (%)	Appropriateness for measure attitude (%)
item 29	I am more likely to ask an older patient if they would like something to help them sleep than I ask a younger patient	0.20	80.00	40.00
item 30	I am more likely to ask an older patient if they would like to see a chaplain or clergy person than a younger patient	0.30	100.00	70.00
item 31	I involve younger patients in decision-making relating to their health	0.30	100.00	50.00
item 32	I involve older patients in decision-making relating to their health	1.00	100.00	100.00
item 33	I encourage older patients to maintain their independence while in the hospital	1.00	88.89	100.00
item 34	I begin discharge planning earlier in an older patient's stay than in a younger patient's stay	0.80	100.00	80.00
item 35	I allow more time to prepare an older patient for discharge than a younger patient	0.80	100.00	80.00
item 36	I find it easier to cope with the death of an older patient than a younger patient	0.30	90.00	60.00

OPACS section B		Content validity		
		I-CVI	Clarity of Dutch wording (%)	Appropriateness for measure attitude (%)
item 01	I like to care for older patients	1.00	100.00	100.00
item 02	Older patients adapt easily to the role of being sick	0.10	70.00	30.00
item 03	Older patients tend to have similar needs in the hospital	0.50	40.00	50.00
item 04	Older patients are confused	0.70	100.00	90.00
item 05	Older patients pretend not to hear you	0.60	100.00	90.00
item 06	Older patients are a nuisance to care for	0.80	100.00	90.00
item 07	Older patients are more likely to be depressed than younger patients	0.60	80.00	90.00
item 08	Older patients have to follow special diets	0.30	100.00	60.00
item 09	Older patients do not know the actions and interactions of their medications	0.80	100.00	90.00
item 10	Older patients require less pain relieving medication than younger patients	0.70	90.00	90.00
item 11	Older patients are less likely to become addicted to pain relieving medications than younger patients	0.70	90.00	70.00
item 12	Older patients become addicted to sleeping medications easily	0.80	90.00	90.00
item 13	Incontinent patients are bothersome	0.70	90.00	80.00
item 14	Urinary incontinence is part of the aging process	0.50	100.00	80.00
item 15	Older patients are more concerned with their bowel habits than younger patients	0.40	90.00	70.00
item 16	Older patients are embarrassed when their bodies are exposed	0.50	100.00	80.00
item 17	Younger patients are embarrassed when their bodies are exposed	0.10	100.00	30.00
item 18	An older patient's family/ care-giver should be involved in their care	1.00	100.00	100.00
item 19	Older patients, if not confused, are capable of making decisions about their care	1.00	100.00	100.00
item 20	Family member/ care-givers should be involved in the decision making process for all older patients	0.90	100.00	100.00

OPACS section B		I-CVI	Content validity	
			Clarity of Dutch wording (%)	Appropriateness for measure attitude (%)
item 21	Rehabilitation of older patients is part of the doctors'/ nurses role	0.80	77.78	100.00
item 22	Older patients should have a say in whether they receive life-sustaining treatments	1.00	77.78	100.00
item 23	Too many older patients receive life-sustaining treatment	0.78	44.44	87.50
item 24	Older patients have more discharge problems than do younger patients	0.80	60.00	80.00
item 25	At the time of discharge older patients are likely to be more dependent than younger patients	0.80	90.00	80.00
item 26	Older patients require placement in long term care following a hospital admission	0.50	60.00	70.00
item 27	Older patients have extensive lengths of stay and take up beds that could be used for sicker patients	0.80	90.00	80.00
item 28	There are too many older patients in acute care hospitals	0.90	90.00	90.00
item 29	It would be a good idea for all hospitals to have an acute geriatric unit	0.80	80.00	90.00
item 30	Older patients tend to be less anxious than younger patients when they are admitted to the hospital	0.40	80.00	50.00
item 31	Older patients are likely to be on more medication when admitted to the hospital than younger patients	0.60	100.00	55.56
item 32	Older patients become confused in a new setting	0.80	100.00	88.89
item 33	Older patients feel isolated in the acute care setting	0.33	80.00	66.67
item 34	In the hospital, older patients tend to socialize with other older patients	0.22	80.00	33.33
item 35	In the hospital, eating and drinking are the most common activities performed by older patients	0.30	80.00	70.00
item 36	Older patients have healthy eating habits	0.20	77.78	30.00
item 37	Older patients have more skin problems than younger patients	0.40	90.00	60.00
item 38	Older patients have impaired peripheral circulation	0.40	90.00	70.00
item 39	Poor nutrition is a problem associated with aging	0.70	100.00	90.00
item 40	Older patients are more likely to require assistance with mobility than younger patients	0.90	90.00	90.00
item 41	A lot of older patients have stiff joints	0.50	80.00	80.00
item 42	Older patients are at less risk of falling than younger patients	0.60	80.00	70.00
item 43	Older patients tend not to tell health professional if they are incontinent	0.50	100.00	60.00
item 44	Older patients experience changes in bowel elimination patterns in the acute care setting	0.50	100.00	44.44
item 45	Older patients' health problems are often incurable	0.90	100.00	100.00
item 46	Older patients are more likely to have open surgical procedures than laparoscopic surgery	0.20	80.00	40.00
item 47	Older patients become confused after operations/ procedures	1.00	90.00	100.00
item 48	Older patients are more likely to develop post-operative complications	0.90	88.89	100.00
item 49	Older patients are particularly prone to nosocomial infections	0.80	90.00	100.00
item 50	Early discharge is difficult to achieve with older patients	0.80	70.00	90.00
OPACS section A (item 1-36)		0,61(0.31)*	92.07 (16.65)**	73.64 (25.75)**
OPACS section B (item 1-50)		0,64(0.25)*	87.13 (14.22)**	76.93 (21.08)**
OPACS section A (item 1-36) and B (item 1-50)		0,62(0.28)*	89.20 (15.37)**	75.55 (23.06)**

(I-CVI = Individual-Content Validity Index; S-CVI=Scale-Content Validity Index)

*= S-CVI, (SD)

**= mean %, (SD)

Table 3 Analyzing interrater reliability with Fleiss Kappa (*k*)

	Relevance (<i>k</i> ; SE)		Clarity of Dutch wording (<i>k</i> ; SE)		Appropriateness for measure attitude (<i>k</i> ; SE)	
	Least common	Most common	Least common	Most common	Least common	Most common
OPACS	0.1241	0.1534	0.2510	0.3029	0.2385	0.2643
Section A	(0.0146)	(0.0146)	(0.0248)	(0.0248)	(0.0248)	(0.0248)
OPACS	0.0627	0.0700	0.0716	0.0921	0.1314	0.1681
Section B	(0.0126)	(0.0126)	(0.0211)	(0.0211)	(0.0211)	(0.0211)
OPACS	0.0893	0.1056	0.1371	0.1642	0.1780	0.2118
Section A and B	(0.0095)	(0.0095)	(0.0161)	(0.0161)	(0.0161)	(0.0161)

APPENDIX 1: DUTCH VERSION OF 'OLDER PATIENTS IN ACUTE CARE SURVEY'

De volgende items gaan over jouw **PRAKTIJKERVARING** in de zorg voor oudere patiënten (van 65 jaar en ouder) in de acute zorg / in het ziekenhuis. Zet voor ieder item een 'X' in het vakje dat het beste jouw praktijkervaring weergeeft. Er zijn geen goede of foute antwoorden. Wij zijn geïnteresseerd in wat jij hebt *ervaren* toe je zorgde voor ouderen in de acute zorg/ in het ziekenhuis. **N**=Nooit **Z**=Zelden **S**=Soms **V**=Vaak **ZV**=Zeer Vaak

OPACS deel A

item 01	Ik vind het moeilijk om voor oudere patiënten te zorgen
item 02	Ik vind dat oudere patiënten meer tijd in beslag nemen dan jongere patiënten.
item 03	Ik vind het nodig oudere patiënten nauwkeuriger te observeren dan jongere patiënten
item 04	Ik zou eerder eenvoudige taal gebruiken bij een oudere patiënt dan bij een jongere patiënt
item 05	Ik heb de neiging langzamer te praten wanneer ik met een oudere patiënt spreek
item 06	Ik heb de neiging harder te praten wanneer ik met een oudere patiënt spreek
item 07	Ik ben geneigd socialer te praten met een oudere patiënt
item 08	Ik ben geneigd socialer te praten met een jongere patiënt
item 09	Ik zou eerder troetelwoorden (bv. liefje, schatje) gebruiken bij oudere vrouwelijke patiënten dan bij jongere vrouwelijke patiënten
item 10	Ik zou eerder troetelwoorden (bv. opa, schat) gebruiken bij oudere mannelijke patiënten dan bij jongere mannelijke patiënten
item 11	Ik neem extra de tijd wanneer ik een oudere patiënt opneem
item 12	Ik vind het moeilijker een uitgebreide gezondheidsanamnese te verkrijgen bij een oudere patiënt dan bij een jongere patiënt
item 13	De informatie die ik gekregen heb bij de opname gebruik ik om de zorg voor de oudere patiënt te plannen
item 14	Ik gebruik een gezondheidsanamnese speciaal ontworpen voor oudere patiënten
item 15	Ik vind het nodig om verwarde oudere patiënten nauwkeurig in de gaten te houden
item 16	Ik zou eerder enige vorm van vrijheidsbeperkende maatregelen gebruiken bij een oudere patiënt dan bij een jongere patiënt
item 17	Ik biedt vaker hulp bij persoonlijke hygiëne aan oudere patiënten dan aan jongere patiënten
item 18	Ik vraag vaker aan oudere patiënten of zij ondersteuning bij de activiteiten van het dagelijks leven nodig hebben dan aan jongere patiënten
item 19	Ik heb moeite om de pols van oudere patiënten te voelen
item 20	Ik vraag jongere patiënten of ze incontinentieproblemen hebben
item 21	Ik vraag oudere patiënten of ze incontinentieproblemen hebben
item 22	Ik betrek de familie/ mantelzorger bij de zorg van een jongere patiënt.
item 23	Ik betrek de familie/ mantelzorger bij de zorg van een oudere patiënt.
item 24	Aan oudere patiënten geeft ik meer dan eens uitleg over hun medicatie om er zeker van te zijn dat ze het begrijpen
item 25	Ik zou aan een oudere patiënt minder snel zelfmedicatie (bv. pijn-pomp, insulinepomp, inhaler) in het ziekenhuis aanmoedigen dan aan een jongere patiënt.
item 26	Ik vraag vaker aan oudere patiënten of ze pijn hebben dan aan jongere patiënten
item 27	Ik vraag vaker aan oudere patiënten of ze pijnstilling nodig hebben dan aan jongere patiënten
item 28	Ik controleer vaker bij oudere patiënten of ze de werking van de pijn-pomp (PCA) begrijpen dan bij jongere patiënten
item 29	Ik zou eerder aan een oudere patiënt vragen of ze iets willen hebben om te slapen dan aan een jongere patiënt
item 30	Ik zou eerder aan een oudere patiënt vragen of deze contact wil met een geestelijk verzorger dan aan een jongere patiënt
item 31	Ik betrek jongere patiënten bij besluitvorming met betrekking tot hun gezondheid
item 32	Ik betrek oudere patiënten bij besluitvorming met betrekking tot hun gezondheid
item 33	Ik moedig oudere patiënten aan hun onafhankelijkheid te behouden terwijl ze in het ziekenhuis zijn

item 34	Bij de opname van een oudere patiënt begin ik eerder met de ontslagplanning dan bij de opname van een jongere patiënt
item 35	Ik neem meer tijd om het ontslag bij een oudere patiënt voor te bereiden dan bij een jongere patiënt
item 36	Ik vind het gemakkelijker met de dood van een oudere patiënt om te gaan dan met de dood van een jongere patiënt

De volgende items gaan over jouw **ALGEMENE MENING** bij de zorg voor oudere patiënten (van 65 jaar en ouder) in de acute zorg / in het ziekenhuis. Zet bij elke vraag een 'X' in het vakje dat het beste jouw algemene mening weergeeft. Er zijn geen goede of foute antwoorden. Wij zijn geïnteresseerd in wat je *algemene mening* is bij de zorg voor ouderen in de acute zorg / in het ziekenhuis. **N**=Nooit **Z**=Zelden **S**=Soms **V**=vaak **ZV**=Zeer Vaak

OPACS deel B

item 01	Ik zorg graag voor oudere patiënten
item 02	Oudere patiënten passen zich gemakkelijk aan aan de patiëntenrol
item 03	Oudere patiënten hebben vergelijkbare behoeften in het ziekenhuis
item 04	Oudere patiënten zijn verward
item 05	Oudere patiënten doen alsof ze je niet horen
item 06	Oudere patiënten zijn een last om voor te zorgen
item 07	Oudere patiënten zijn eerder depressief dan jongere patiënten
item 08	Oudere patiënten moeten speciale diëten volgen
item 09	Oudere patiënten kennen de werking en bijwerkingen van hun medicijnen niet
item 10	Oudere patiënten hebben minder pijnstilling nodig dan jongere patiënten
item 11	Oudere patiënten raken minder snel verslaafd aan pijnstillers dan jongere patiënten
item 12	Oudere patiënten raken gemakkelijk verslaafd aan slaapmiddelen
item 13	Patiënten die incontinent zijn, zijn lastig.
item 14	Urine-incontinentie hoort bij het verouderingsproces
item 15	Oudere patiënten maken zich meer zorgen om hun darmwerking dan jongere patiënten
item 16	Oudere patiënten schamen zich wanneer hun lichaam ontbloot is
item 17	Jongere patiënten schamen zich wanneer hun lichaam ontbloot is
item 18	Familieleden /mantelzorgers zouden betrokken moeten zijn bij de zorg van oudere patiënten
item 19	Oudere patiënten die niet verward zijn, zijn in staat beslissingen te nemen over hun zorg.
item 20	Bij alle oudere patiënten zouden familieleden /mantelzorgers betrokken moeten zijn bij het besluitvormingsproces
item 21	Revalidatie van oudere patiënten is onderdeel van de rol van artsen/ verpleegkundigen
item 22	Oudere patiënten zouden moeten meebeslissen of ze essentiële behandelingen gericht op levensbehoud willen ondergaan
item 23	Te veel oudere patiënten krijgen essentiële behandelingen gericht op levensonderhoud
item 24	Oudere patiënten hebben meer problemen bij ontslag dan jongere patiënten
item 25	Bij hun ontslag is het waarschijnlijker dat oudere patiënten meer afhankelijk zijn dan jongere patiënten
item 26	Oudere patiënten hebben plaatsing in langdurige zorg nodig na ontslag uit het ziekenhuis
item 27	Oudere patiënten hebben een langere opnameduur en bezetten bedden die voor ziekere patiënten gebruikt zouden kunnen worden
item 28	Er liggen teveel oudere patiënten in de ziekenhuizen
item 29	Het zou een goed idee zijn om in alle ziekenhuizen een geriatrische afdeling te hebben
item 30	Oudere patiënten zijn geneigd om minder angstig te zijn bij een opname dan jongere patiënten
item 31	Oudere patiënten gebruiken bij opname in het ziekenhuis meestal meer medicijnen dan jongere patiënten
item 32	Oudere patiënten raken in de war in een nieuwe omgeving
item 33	Oudere patiënten voelen zich geïsoleerd in het ziekenhuis
item 34	In het ziekenhuis zullen oudere patiënten vaker omgaan met andere oudere patiënten
item 35	In het ziekenhuis zijn eten en drinken de meest voorkomende activiteiten voor oudere patiënten
item 36	Oudere patiënten hebben gezonde eetgewoontes
item 37	Oudere patiënten hebben meer huidproblemen dan jongere patiënten
item 38	Oudere patiënten hebben een verminderde perifere circulatie
item 39	Een slechte voedingstoestand hoort bij het verouderingsproces
item 40	Het is waarschijnlijker dat oudere patiënten ondersteuning nodig hebben bij mobiliteit dan jongere patiënten

item 41	Veel oudere patiënten hebben stijve gewrichten
item 42	Oudere patiënten lopen minder risico op vallen dan jongere
item 43	Oudere patiënten hebben de neiging om zorgverleners niet te vertellen dat ze incontinent zijn
item 44	In het ziekenhuis ervaren oudere patiënten een verandering van het ontlastingspatroon
item 45	De gezondheidsproblemen van oudere patiënten zijn vaak niet te genezen
item 46	Het is waarschijnlijker dat oudere patiënten (open) chirurgische ingrepen hebben dan laparoscopische chirurgie
item 47	Oudere patiënten raken verward na operaties / procedures
item 48	Oudere patiënten hebben de neiging vaker postoperatieve complicaties te ontwikkelen
item 49	Oudere patiënten zijn bijzonder vatbaar voor nosocomiale infecties (ziekenhuisinfecties)
item 50	Een vroeg ontslag is moeilijk te realiseren bij oudere patiënten
