

Volume 11, 31 May 2011

Publisher: Igitur publishing

URL: <http://www.ijic.org>

URN:NBN:NL:UI:10-1-101447, ijic2011-19

Copyright: 

Submitted: 3 November 2010, revised 11 March 2011, accepted 5 April 2011

Policy

Determining eligibility for long-term care—lessons from Germany

Andreas Büscher, Prof., Dr., Institute of Nursing Science at the University of Bielefeld, PO Box 100131, D-33501 Bielefeld, Germany; University of Applied Sciences Osnabrück, Faculty of Business Administration and Social Sciences, PO Box 1940, D-49009 Osnabrück, Germany

Klaus Wingefeld, PH, Dr., Institute of Nursing Science at the University of Bielefeld, PO Box 100131, D-33501 Bielefeld, Germany

Doris Schaeffer, Prof., Dr., Institute of Nursing Science at the University of Bielefeld, PO Box 100131, D-33501 Bielefeld, Germany

Correspondence to: Andreas Büscher, University of Applied Sciences Osnabrück, Faculty of Business Administration and Social Sciences, PO Box 1940, D-49009 Osnabrück, Germany, Phone: +49 541 969-3591, Fax: +49 969-2971, E-mail: A.buescher@hs-osnabrueck.de

Abstract

Objectives: This paper addresses recent steps for reforming the eligibility criteria of the German long-term care insurance that have been initiated to overcome shortcomings in the current system.

Methods: Based on findings of a survey of international long-term care systems, assessment tools and the relevant literature on care needs a new tool for determining eligibility in the German long-term care insurance was developed.

Results: The new tool for determining long-term care eligibility broadens the understanding of what ‘dependency on nursing care’ implies for the person affected. The assessment results in a degree of dependency from personal help provided by formal or informal caregivers. This degree of dependency can be used for determining eligibility for and the amount of long-term care benefits.

Discussion: The broader understanding of ‘dependency on nursing care’ and the new tool are important steps to adapt the German long-term care insurance to the challenges of the demographic and societal changes in the future.

Keywords

Long-term care, eligibility criteria, assessment tool, Germany

Introduction

The development and design of long-term care (LTC) systems receive increasingly more attention in health care policy, particularly in Northern America and Western Europe with their rapidly aging populations. This

is reflected by the growing discourse on long-term care principles and challenges that has been initiated by international organizations, such as WHO, OECD, and EU [1–3] and is supported by calls for preventing the demand for long-term care services in the elderly population [4, 5].

One of the key questions in any long-term care system is the definition of eligibility for LTC benefits and services. It is one of the most important aspects for steering LTC systems in terms of regulating the number of beneficiaries and, by doing so, having a baseline for calculating costs and resources necessary to run the system. But eligibility criteria not only determine the costs of LTC systems, they also reflect which individual circumstances related to health, ill-health or disability are considered to be serious enough to be covered by a national or regional LTC system. In this respect the eligibility criteria have a function in terms of fair distribution of services and benefits to people in need and in terms of granting access to services.

Both aspects, the costs and the degree of population coverage, have been discussed in the German LTC insurance system from its implementation in 1995 until now. Recently, important steps have been undertaken to reform the eligibility criteria of the LTC insurance and to adapt it to the challenges of the future [6, 7]. This paper provides an overview of these steps and addresses important aspects for developing eligibility criteria in LTC and the approaches for its assessment. In the beginning some key aspects of the German LTC system will be highlighted that are needed for understanding the reform discussion addressed in this paper. Finally, some implications for long-term care systems in general will be discussed.

Background: the German long-term care insurance system

The German long-term care insurance was implemented to cover individual needs for nursing care that can be addressed by formal and/or informal caregivers. It is part of the overall national social insurance scheme that includes sickness, pension, accidental, unemployment and long-term care insurance. This social insurance scheme is an obligatory insurance system that ensures coverage against several life risks for the entire population [8]. The general principle of this scheme is the shared contribution of insurance fees by employers and employees who pay 50% of the contribution each. The insurance fee for long-term care is 1.95% of the employee's gross salary (2.2% for adults without children).

From its implementation in 1995 the LTC insurance was intended to cover only parts and not all of the long-term care needs of the population. The eligibility criteria, which introduced a 'Concept of dependency on nursing care' (Begriff der Pflegebedürftigkeit), reflected this intention by defining the parts of long-term care needs that are covered. According to this a person is considered to be eligible for long-term care benefits, if she or he is unable to perform regular activities of

daily living in the areas of personal hygiene, nutrition, mobility and domestic care due to physical or mental illness/disability for at least six months. The severity of dependency is defined on three levels:

- Level 1: substantial need of care, which means that assistance in at least two of the activities personal hygiene, nutrition **or** mobility is needed once a day and in addition domestic care several times a week. The amount of time required by an informal caregiver to spend on the care of the person is at least 90 minutes a day (out of which 45 minutes need to be spend on hygiene, nutrition, mobility).
- Level 2: severe need of care requires assistance in personal hygiene, nutrition **or** mobility at least three times a day at different times and in addition assistance in domestic care several times a week. The time required is at least 180 minutes (120 for hygiene, nutrition, mobility) a day.
- Level 3: most severe need of care exists when assistance in personal hygiene, nutrition **and** mobility is required all day and night and in addition assistance in domestic care several times a week. Time required is at least 300 minutes (240 for hygiene, nutrition, mobility) a day.

This definition indicates that in the current system not the degree of dependency on nursing care, but the estimated time for the performance of selected care activities is assessed [9]. This assessment is undertaken by the Medical Board of the sickness insurances (MDK), an official independent consultancy jointly financed by the sickness insurance funds. Within the MDK doctors and nurses are employed and responsible for the assessment that takes place in the claimant's or a nursing home. People who have been found eligible for benefits from the LTC insurance can receive benefits for nursing home care, care-in-kind-services in their homes (i.e. services provided by professional home care nursing services) or cash payments. The amount of benefits is determined by the level of dependency and is always limited to the legally defined level (see Table 1).

In addition, people may be eligible for benefits and services from other parts of the social security system, such as home care nursing with regard to medical aspects that is covered by the sickness insurance or additional social assistance. An overview of the LTC beneficiaries in 2009 [10] is provided in Table 2.

Shortcomings of the existing system

The eligibility criteria mentioned above have been criticized since their implementation [11]. The critique

Table 1. Benefits per month in the German LTC insurance

	Cash payment (home)	Care-in-kind (home)	Nursing home
Level I	225 €	440 €	1.023 €
Level II	430 €	1.040 €	1.279 €
Level III	685 €	1.510 €	1.510 €

was focused on the narrow concept of ‘dependency on nursing care’ that only includes somatic and neglects other aspects, such as consequences from cognitive impairments, mental and behavioural health problems, communication ability or various challenges in the management of chronic illness. Given the increasing number of people suffering from dementia and chronic illness this narrow definition of eligibility for services excludes obvious needs of a large part of the population [12].

Less discussed, but equally important in the evaluation of the existing system is the use of time as a measure for determining eligibility. It seems a reliable measure at first glance, but when considered from a scientific point of view it poses severe methodological problems [13]. The time that is needed for performing activities of daily living is actually not a suitable objective measure, because it is highly individualized and depends on a range of influencing factors, such as:

- the aims of the caregiver when performing a particular activity
- the person who is providing the care in terms of motivation and skills

Table 2. Beneficiaries in the German LTC insurance in 2009

2.34 Million people are dependent on nursing care and eligible for benefits from the LTC insurance		
1.62 Million (69%) are cared for in their own homes		717.000 (31%) are cared for in nursing homes
1.07 Million people are cared for by family/informal carers only and receive cash payments:	550.000 people are utilizing a professional home care service and receive care-in-kind-benefits:	
63.9% on level I	54.5% on level I	36.8% on level I
28.4% on level II	33.9% on level II	41.2% on level II
7.7% on level III	11.6% on level III	20.5% on level III

- the quality of the relationship between caregiver and care-recipient
- the individual preferences of the care-recipient
- the use of assistive devices
- the surroundings in which care is provided, and
- the professional standards that are applied.

The problems with measuring time became obvious right after the implementation of the LTC insurance. Huge regional differences in the distribution of eligibility levels across Germany have been identified that could not be explained by any epidemiological or demographic factors [14, 15], but purely because of the inherent methodological problems of the system. In the German context this is particularly problematic, because equality is one of the core principles of the whole health and social care system. Accordingly the assessment process has to be performed in a way that ensures equal chances for the population to be assessed for eligibility in a reliable and comparable way. The regional differences in the distribution of eligibility levels due to methodological weaknesses therefore are not acceptable in the long-run.

Search for LTC eligibility criteria internationally

Despite the broad consensus on the weaknesses of the existing system it took some time, before the German Ministry of Health launched an initiative to evaluate and to reform the current eligibility criteria. For this purpose it established an Advisory Board to review the legal definitions in the long-term care insurance. The members of the Advisory Board represented all relevant stakeholders from the German LTC field, such as provider organization, insurers, professional representatives, consumer organizations, scientists and lawyers. To base the discussions of the Advisory Board on solid evidence a study was commissioned to search and analyze international LTC systems, their eligibility criteria and the assessment tools and procedures used. The idea was to learn from international experiences and make use of them for the reform of the German LTC system.

The results of this study [16] can be summarized by three aspects that are addressed in the following paragraphs:

- ‘Dependency on nursing care’ and eligibility criteria have been defined by different disciplines and for different purposes.
- There are four key elements by which ‘Dependency on nursing care’ can be characterized.
- Despite the availability of several assessment tools none of them was found to be suitable to be used

in the German LTC insurance, which results in the need for developing a new tool.

Defining 'Dependency on nursing care' from different perspectives

From a nursing science perspective some 'need theorists' have focussed on activities and areas of life, because of which a person might become dependent on nursing care. These were conceptualized as 21 conditions for which a nurse can assist [17], a person's lack of knowledge, strength, or will to carry out activities [18] or as a deficit between a person's self-care capabilities and self-care demands [19]. The activities and areas of life that cause dependency are related to physical, mental and social aspects as well.

Unlike this rather person-centred approach the discussion within international LTC systems on eligibility criteria can be characterized as rather pragmatic. The following criteria have been found in different systems internationally [16]:

- Age: some LTC systems have been developed for elderly people only (usually 65 years +). Exceptions from this principle, such as the Japanese regulation that people between 40 and 64 receive benefits only in case of the occurrence of legally defined illnesses [20, 21], also fall under this principle. The German LTC insurance does not limit the beneficiaries to particular age groups.
- Financial situation of the person in need of care: some countries use a means test to determine whether and to what extent people can pay for the services they need out of their own pocket, before public spending on these services begins. As mentioned above, the German LTC system is part of the overall social insurance scheme and therefore access to services is granted independently from the individual's financial situation.
- Role of the family: similarly the role of the family can be considered as a barrier for LTC eligibility, i.e. as long as family caregivers provide the services necessary no public money will be used. In fact, because informal caregivers are still, and always have been, the backbone of long-term care, the role of the family is more and more considered as a resource that needs to be maintained by means of granting benefits for caring family members [1].

Key elements to characterize 'Dependency on nursing care'

Despite the huge heterogeneity in approaches for determining eligibility for long-term care the search revealed

some key elements of what constitutes dependency on nursing care. According to this a person is dependent on nursing care who:

- due to a lack of personal resources for compensating or managing functional limitations or health-related burdens and requirements
- permanently or temporarily
- is not able to engage independently in activities, illness management or social participation and therefore
- in need of personal assistance in nursing care activities [16].

Assessment tools for determining LTC eligibility

As heterogeneous as the definitions of '*dependency on nursing care*' have been the findings on assessment tools that are used for determining LTC eligibility. A total of 40 different tools have been thoroughly investigated for their content, formal structure, methodological quality and the feasibility of their utilization. Despite positive ratings for some instruments according to these criteria, such as FACE (Functional Assessment of Care Environments) or the Resident Assessment Instrument (RAI), the study recommended to undertake the work of developing a new assessment tool for determining eligibility. This recommendation was based on the fact that none of the instruments was tailored to the formal requirements and structure of the German social security system in general and the long-term care system in particular. The Advisory Board of the Ministry of Health endorsed this recommendation and commissioned a study on the development and evaluation of a new assessment tool for determining eligibility in the German long-term care insurance.

Similar processes of searching and identifying suitable tools for determining eligibility for LTC have taken place in several other countries, such as Australia [22], Japan [20] and the UK [23] during the last years. In Japan, too, the decision was made to develop a new tool that is suitable for the Japanese situation instead of using and adapting an existing tool [20]. In the UK criteria for tools to be used in the Single Assessment Process (SAP) have been developed and six different tools have been accredited for utilization [23].

The new approach to determining eligibility for LTC in Germany

The process of developing a new assessment tool in Germany was guided by several requirements by the Advisory Board and the Ministry of Health. These concerned:

- the existing eligibility criteria were to be expanded considerably, particularly in terms of including people with cognitive impairments,
- the tool was to ensure a valid and reliable assessment of dependency from other persons,
- the procedure of the assessment process and its results needed to be transparent and understandable for LTC users,
- the assessment process with the new tool needed to be feasible for the Medical Boards of the insurances,
- the results of the assessment were to be used for care planning purposes.

All these aspects were considered in the development process of the new tool that was labelled **NBA** (German for: Neues Begutachtungsassessment zur Feststellung der Pflegebedürftigkeit—new assessment tool for determining dependency on nursing care). It was first published in Germany in February 2008 [24] and afterwards tested and evaluated [25].

The first step in the development of the NBA was an outline of the different areas of relevance for determining dependency on nursing care. This was done with reference to established assessment tools, particularly those with positive results in the preceding analysis, and classification systems for nursing care. The different areas were organized in modules. By constantly evaluating and further refining the modules it was

ensured that they have enough discriminatory power to be used for determining eligibility and granting benefits. In total eight modules have been developed: mobility, cognitive and communication abilities, behaviour and psychological problems, self-care, ability to deal with illness-/therapy-related demands and stress, managing everyday life and social contacts, activities outside the house and household maintenance.

In a second step the items for each module have been identified. This was also done with reference to other assessment tools. In addition, focus group discussions with experienced assessors (physicians and nurses) from the Medical Board of the Insurances have been conducted. During the development process international experts on assessment tools from the UK and an expert of long-term care in Japan have been consulted to ensure the integration of as much expertise as possible. An overview of modules and items is provided in Table 3.

The Scoring system of the tool was first generated for each module separately. This step was necessary, because of the different contents of the items in each module. The actual assessment is done on a four-point scale. In Modules 1, 4, 6 and 8 the scale embraces the four points: independent, mainly independent, mainly dependent, fully dependent. Module 2 is related to abilities and therefore the scale contains the four points: existing/unaffected, existing to a larger degree, existing

Table 3. Modules and items of the NBA

Module	No. of items	Items
Mobility	5	Change of position, keeping stable sitting position, rising up from sitting position, moving along in dwelling place, climbing stairs
Cognitive and communication abilities	11	Recognition of significant others, spatial and temporal orientation, memory, decision-making in everyday life, understanding of facts and information, detection of risks and dangers, conveyance of basic needs, understanding of requests and participation in conversations
Behaviour and mental health	13	Agitation, nocturnal restlessness, self-endangering and auto-assaultive behaviour, verbal and other aggression, delusions/illusions, anxiety, refusal of supportive actions, vocal deviant utterances
Self-care	12	Items related to personal hygiene, dressing/undressing, eating, drinking, toileting
Ability to deal with illness-/therapy-related demands and burden	15	Medication, s.c./i.m./i.v. applications, taking and interpreting body parameters, dressing/woundcare, therapeutic measures in the home (e.g. exercises), visits to physicians/therapeutic facilities
Managing everyday life and social contacts	6	Shaping daily routine, resting and sleeping, occupying oneself, making plans for the future, interacting with people in direct social contact, contacting people outside the direct surroundings
Activities outside the house	7	Movements outside of the home, participation in various activities
Household maintenance	7	Grocery shopping, preparing basic meals, tidying and cleaning, use of services, regulating financial matters and administrative measures

Table 4. Weighted modules of NBA

Module 1	Mobility	10%
Modules 2 and 3	Cognition and behaviour	15%
Module 4	Self-care	40%
Module 5	Management of illness-related demands	20%
Module 6	Everyday life and social contacts	15%

to a minor degree, not existing. Unlike in the other areas modules 3 and 5 require the consideration of the frequency of occurrence of the particular items. While in all other modules an assessment on all items is made here usually only some items apply at the same time. Therefore, in module 3 the occurrence of the behavioural or psychological problems is assessed. Even more complex is the assessment in module 5. There it is assessed firstly, whether the item occurs at all. If so, it is assessed, whether the person performs an activity independently. If not, the frequency of the support needed is assessed.

For integrating the scores of the individual modules into an overall score between 0 and 100 an algorithm was developed. To calculate the overall score each module contributes to a different extent. The modules have been weighted as presented in Table 4.

The rationale behind this weighting is based on several considerations. One of the main objectives of the development process was to include people with dementia and other mental health problems in the long-term care insurance without, at the same time, excluding people with problems related to mobility and self-care. The weighting of the modules needs to reflect this objective. Other considerations were as follows:

- Modules 1 (mobility) and 4 (self-care) play a key role when determining the degree of dependency on nursing care. Therefore, together their contribution to the overall dependency score should not be below 50%. Results from a previous study [26] indicate that the relation between supportive activities with regard to mobility compared to those with regard to self-care is approximately 1–4. Therefore, mobility is weighted with 10% and self-care with 40%.
- The support needed for problems in modules 2 and 3 is rather similar and includes aspects of observation, supervision, emotional support, de-escalating activities, motivation and the like. Also module 6 is related to problems with cognition and communication. The modules 2, 3 and 6 that are related to cognitive and behavioural aspects account for 30% of the overall score. This seemed reasonable

to overcome the narrow focus on physical aspects in the existing system without stressing the mental aspects too strongly and neglecting the physical ones at the same time.

- Finally, module 5 reflects that the need for care often arises from chronic illness that requires a range of activities for the person affected and that these activities have an influence on the person's degree of dependence. This justifies a 20% contribution to the overall score.

Using this algorithm the scores from the singular modules are transferred into a score matching the relative contribution of each module to the overall score. The pre-test of the NBA [24] and the evaluation [25] confirmed that the objectives of the NBA can be achieved with the weighting of the different modules.

One of the key features of the new tool is the underlying assumption that dependency can be assessed and measured in terms of a person-related characteristic that exists independently from any contextual factors. This implies a strong distinction between 'dependency on nursing care' as a person-related characteristic and the individual need for care. According to this individual dependency of a person will be the same in different settings and different life circumstances. It can be determined with regard to the person and without consideration of any contextual variables. On the other hand, the individual need may vary considerably due to the setting, general life circumstances, individual preferences and other aspects of the person. While dependency can be assessed by using a tool, a statement on the individual need always needs a negotiation and agreement between the persons involved. The individual need is determined jointly between the person affected and formal or informal caregivers. It is strongly influenced by the context in which it is placed.

Compared to the existing approach the NBA overcomes the shortcomings mentioned above: the narrow eligibility criteria have been considerably expanded and the reliance on the measure of time needed for activities of daily living has been replaced. The NBA instead is intended to assess and measure the degree of individual in/dependence in selected life areas and activities.

Five categories of need

The Advisory Board followed the suggestion of the NBA developers to distinguish five different categories of dependence/independence. These have not been defined arbitrarily as it is criticized in other tools [27], but according to dependency levels and mean values that have arisen from the pre-test and evaluation of

Table 5. Five degrees of dependency

Degree	Threshold values/score
1st degree of dependency	15–29
2nd degree of dependency	30–49
3rd degree of dependency	50–69
4th degree of dependency	70–89
5th degree of dependency	Either 90+, or 90+ and additional specific need constellation

the new tool. The different levels and threshold values suggested are presented in Table 5.

In summary, the Advisory Board concluded that the NBA presents a suitable alternative to the current assessment procedure and eligibility criteria for LTC benefits in Germany [6]. The Board emphasized that the new tool not only overcomes problems and shortcomings of the existing system, but also creates a basis to address the future challenges in long-term care. In particular the new tool:

- takes all relevant aspects of dependency on nursing care into account and is not limited to particular ones,
- creates more equality, because it now embraces people with dependency on care due to mental (particularly those with dementia) as well as physical health problems,
- uses the measure ‘degree of in/dependence’ for determining LTC eligibility instead of the problematic measure of time,
- offers a new way for understanding long-term care services that nowadays often are limited to the existing eligibility criteria only, which resulted in serious shortcomings of services related to cognitive and behavioral mental health problems,
- provides valuable and reliable information that can be used in the various care arrangements for care planning, case management and other purposes.

Because of these many advantages compared to the current system the Advisory Board unanimously recommended to change the existing eligibility criteria within the long-term care insurance system and implement the NBA as the national tool to determine LTC eligibility.

Conclusions

The NBA is a tool for determining eligibility for long-term care based on a theoretically sound conceptualization

of dependency on nursing care. It can be used for a strongly person-centred approach to granting access to long-term care services and benefits. The advantage of eligibility criteria that have been defined like in the NBA is their usability for various other purposes within a given long-term care system. This relates to the definition of criteria and indicators for measuring the quality of care, the appropriate allocation of funds and the development of staffing ratios. In addition, for service providers the results of the NBA assessment can be used as the starting point for individual care planning.

The options for using the NBA are not limited to long-term care systems only. The understanding of ‘Dependency on nursing care also’ is considered, as has been outlined above, as a personal characteristic that can be assessed without contextual variables. Therefore, it can also be used to determine dependency in acute hospital or rehabilitation care. The NBA offers an option of using one single assessment tool for different care settings and by doing so can be supportive in establishing integrated care pathways.

The implementation of the NBA in the German LTC will go along with some serious administrative and financial implications. A new understanding of dependency on nursing care challenges all prognosis about the future demand for long-term care in Germany that is based on the old understanding. Given that the new eligibility criteria reflect a much broader concept and embraces physical as well as mental aspects, it can be expected that the number of people in need of care will increase significantly. This would imply a need for more resources to ensure an appropriate amount and quality of services for more people in need of care.

Within the German LTC system the recommendation to use and implement the NBA confirms the approach that was actualized with the implementation of the LTC system in 1995: there is only one general conceptualization of eligibility that applies in institutional as well as home and community-based settings. The degree of dependence is considered to be a personal characteristic that is assessed for every applicant without taking her/his individual life situation into account.

The recommendations of the Advisory Board to the Ministry of Health can be considered as a strong statement of all relevant stakeholders in the German LTC system that a reform is overdue. A change of the existing system is a huge undertaking that needs careful considerations of the implications for the whole social security system. These discussions have been initiated and it can be expected that the recommendations of

the Advisory Board will be implemented in the medium-term future.

Reviewers

Sabine Bartholomeyczik, Prof., Dr., DZNE (German Center for Neurodegenerative Diseases) Standort Witten, Sprecherin Fakultät für Gesundheit, Department

für Pflegewissenschaft Universität, Witten/Herdecke, Postfach, 6250 Stockumer Strasse, 1258453 Witten, Germany

Grace Warner, PhD, Assistant Professor, School of Occupational Therapy, Dalhousie University, 5869 University Avenue, Halifax, Nova Scotia B3H 3J5, Canada

One anonymous reviewer

References

1. WHO. Key policy issues in long-term care. Geneva: World Health Organization and JCD-Brookdale Institute; 2003.
2. OECD. Long-term care for older people. The OECD health project. Paris: OECD; 2005.
3. European Commission. Long-term care in the European Union. Brüssel: Employment, Social Affairs and Equal Opportunities DG; 2008. [cited 2011 April 8]. Available from: <http://ec.europa.eu/social/main.jsp?catId=792&langId=en>.
4. Chou KL, Leung JCB. Disability trends in Hong Kong community-dwelling Chinese older adults. *Journal of Aging and Health* 2008;20(4):385–404.
5. Manton KG, Lamb VL, Gu X. Medicare cost effects of recent U.S. Disability trends in the elderly. *Journal of Aging and Health* 2007;19(3):359–81.
6. Bundesministerium für Gesundheit. Report by the Advisory Board to review the definition of the need for long-term care. Berlin: Bundesministerium für Gesundheit; 2009. [cited 2011 April 8]. Available from: http://www.bmg.bund.de/fileadmin/redaktion/pdf_english/Report_by_the_advisory_board_to_review_the_definition_of_the_need_for_long-term_care.pdf.
7. Bundesministerium für Gesundheit: Implementation report by the Advisory Board to review the definition of the need for long-term care. Berlin: Bundesministerium für Gesundheit; 2009. [cited 2011 April 8]. Available from: http://www.bmg.bund.de/fileadmin/redaktion/pdf_english/Implementation_Report_by_the_Advisory_Board_to_Review_the_Definition_of_the_Need_for_Long-term_Care.pdf.
8. Geraedts M, Heller GV, Harrington CA. Germany's long-term-care insurance: Putting a social insurance model into practice. *The Milbank Quarterly* 2000;78(3):375–401.
9. Bartholomeyczik S, Hunstein D. Time distribution of selected care activities in home care in Germany. *Journal of Clinical Nursing* 2004;13(1):97–104.
10. Statistisches Bundesamt. Pflegestatistik 2009. Pflege im Rahmen der Pflegeversicherung. Deutschlandergebnisse. [Long-term care statistics 2009. Nursing care within the long-term care insurance]. Wiesbaden: Statistisches Bundesamt; 2011. [in German].
11. Cuellar AE, Wiener JM. Can social insurance for long-term care work? The experience of Germany. *Health Affairs* 2000;19(3):8–25.
12. Landtag NRW. Situation und Zukunft der Pflege in NRW. Bericht der Enquête-Kommission des Landtags von NRW. [Situation and future of care in Northrhine-Westfalia. Report of the Enquête-Kommission of the parliament of Northrhine-Westfalia]. Düsseldorf; 2005. [in German].
13. Wingenfeld K. Der Begriff der Pflegebedürftigkeit aus pflegewissenschaftlicher Perspektive [The concept of being in need of nursing care from a nursing science perspective]. *Archiv für Wissenschaft und Praxis der sozialen Arbeit* 2007;38(2):6–18. [in German].
14. Schneekloth U, Potthoff P, Piekara R, Rosenblatt von B. Hilfe- und Pflegebedürftige in privaten Haushalten. Endbericht [People in need of help and nursing care in private households. Final report]. Bericht zur Repräsentativerhebung im Forschungsprojekt „Möglichkeiten und Grenzen selbständiger Lebensführung“. Schriftenreihe des Bundesministeriums für Familien, Senioren, Frauen und Jugend. Band 111.2. Stuttgart: Kohlhammer; 1996. [in German].
15. Wingenfeld K, Pflegebedürftigkeit, Pflegebedarf und pflegerische Leistungen [Being in need of nursing care, Care needs and nursing care activities]. In: Schaeffer D, Wingenfeld K, editors. *Handbuch Pflegewissenschaft*. Weinheim: Juventa; 2011. p. 339–61. [in German].
16. Wingenfeld K, Büscher A, Schaeffer D. Recherche und Analyse von Pflegebedürftigkeitsbegriffen und Einschätzungsinstrumenten [Search and analysis of concepts of “Being in need of nursing care” and assessment tools]. Bielefeld: Institut für Pflegewissenschaft an der Universität Bielefeld; 2007. [cited 2011 April 8]. Available from: http://www.uni-bielefeld.de/gesundhw/ag6/downloads/ipw_bericht_pflegebeduerftigkeit.pdf. [in German].
17. Abdellah FG, Beland II, Martin A, Matheney RV. *Patient-centered approaches to nursing*. New York: Macmillan; 1960.
18. Henderson V. *Basic principles of nursing care*. London: International Council of Nurses; 1960.
19. Orem DE. *Nursing: concepts of practice*. New York: Mosby; 1985.
20. Tsutsui T, Muramatsu N. Care-needs certification on the long-term care insurance system of Japan. *Journal of the American Geriatrics Society* 2005;53(3):522–7.
21. Campbell JC, Ikegami N. Long-term care insurance comes to Japan. *Health Affairs* 2000;19(3):26–39.

22. Lincoln Centre for Ageing and Community Care Research. The review and identification of an existing, validated, comprehensive assessment tool. Final Report. Victoria: Australian Institute for Primary Care at La Trobe University; 2004.
23. Department of Health. Single Assessment Process; 2007. [cited 2011 April 8]. Available from: <http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/SocialCare/Chargingandassessment/SingleAssessmentProcess/index.htm>.
24. Wingenfeld K, Büscher A, Gansweid B. Das neue Begutachtungssassessment zur Feststellung von Pflegebedürftigkeit. [The new assessment tool for determining the need of nursing care]. Bielefeld: Institut für Pflegewissenschaft an der Universität Bielefeld; 2008. [cited 2011 April 8]. Available from: http://www.uni-bielefeld.de/gesundhw/ag6/downloads/Abschlussbericht_IPW_MDKWL_25.03.08.pdf. [in German].
25. Windeler J, Görres S, Thomas S, Kimmel A, Langner I, Reif K, et al. Abschlussbericht. Hauptphase 2 [Final report of main phase 2]. Maßnahmen zur Schaffung eines neuen Pflegebedürftigkeitsbegriffs und eines neuen bundesweit einheitlichen und reliablen Begutachtungsinstruments zur Feststellung der Pflegebedürftigkeit nach dem SGB XI. Essen; 2008. [in German].
26. Wingenfeld K, Schnabel E. Pflegebedarf und Leistungsstruktur in vollstationären Pflegeeinrichtungen. [Care needs and the structure of nursing care delivery in nursing homes]. Eine Untersuchung im Auftrag des Landespflegeausschusses Nordrhein-Westfalen. Düsseldorf; 2002. [in German].
27. Kane RL, Kane RA. Assessment on long-term care. *Annual Review of Public Health* 2000;3:659–86.