Community nursing in Belgium, Germany and the Netherlands

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Community nursing in Belgium, Germany and the Netherlands
This paper contains a comparative study on community nursing in the Netherlands, Belgium and Germany, carried out in the region around Maastricht, where the borders of the three countries meet The well-known problem of comparative studies (the incomparability of concepts and data) has been solved by using the same measuring instruments in the three countries The comparison between the countries was on three aspects the level of care dependency of the patients, the type and number of services provided and the nurses' job interpretation and job satisfaction During 1 week in June or September 1991, 89 community nurses made records of all their home visits and nursing activities In total the community nurses paid 5165 home visits to provide care to 1796 patients The results indicate that both the level of care dependency of the patients as well as the type of care provided differs between the three countries Belgian community nurses have the highest number of patients with a high level of care dependency Curative services like technical nursing care and domestic care are most frequently provided by the German and Belgian community nurses Informing, educating and supporting care is most frequently provided by the Dutch community nurses The German community nurses spend less time on administration activities With respect to job

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interpretation and job satisfaction the following results were found The Dutch community nurses mentioned in their job interpretation many more preventive tasks, whereas the German community nurses more often mentioned domestic tasks Concerning the hygienic and technical tasks, no significant differences were found between the three countries Finally, job satisfaction is lowest in the Netherlands Dutch community nurses are less satisfied with the work organization and the possibilities of autonomy and professionalization than the German and Belgian community nurses

INTRODUCTION

International comparison of health care systems is both fascinating and complicated Financial and legal regulations determine concepts in different ways, even when terms themselves do not indicate differences The term 'community nursing' implies both home nursing and well-baby care provided by the same person in one country (the Netherlands) while in other countries (Belgium, Germany, United Kingdom) these services are organizationally separated So, one can never be sure, confronted with comparative studies, whether results found are due to differences in concepts, definitions or administrative peculiarities of routinely available statistics, or reflect real differences

The solution to this problem is the use of similar and comparable measurement instruments, an approach followed in this study In the area around Maastricht, where the borders of Belgium, Germany and the Netherlands meet and offer excellent logistic opportunities for comparative studies, community nurses have provided information about patient characteristics, service provision and job interpretation/satisfaction with the aid of standardized measuring instruments

This paper contains the results of this study and has been structured around the following research question

> 'To what extent can differences in the utilization and provision of community nursing services be derived from characteristics of the health care and social security system in a situation where comparable measuring instruments have been used?'

Before we can specify and answer this question we need to give an overview of the general features of community nursing in Belgium, Germany and the Netherlands and what is known from previous studies From this overview expectations and specific research questions can be derived

COMMUNITY NURSING IN BELGIUM, GERMANY AND THE NETHERLANDS

The scheme shown in Table 1 contains the essential characteristics of community and home nursing in the countries studied The categories (financial and legal conditions, supply/provider characteristics, demand/consumer characteristics) were borrowed from the Canadian economist Robert Evans (1981) who provides a systematic framework for the description of health care systems

Legislation

One of the most striking differences in legislation concerns the obligation for children to support their indigent parents In the Netherlands this obligation was abolished with the introduction of the *'Algemene Bijstandswet'* (General Support Act) in 1965 providing the entitlement to financial support from the local government in case of indigence For the indigent elderly this support usually includes the payments required for a place in a home for the aged In the other two countries this obligation still exists, although in practice many exceptions mitigate the principle

The considerable differences in the proportion of elderly people living in institutions like homes for the aged and nursing homes in the Netherlands compared with the other two countries is partly due to this basic difference in legislation Another striking feature in legislation regards the dependency of the medical professions no authorization by a physician is needed for the use of community nursing services in the Netherlands, physician authorization is needed for all services in Germany, and a mixed system exists in Belgium (authorization for technical services like injections and free access for general nursing services for heavily dependent persons) These differences shape the professional content of the nurses' work

Financing

Differences can also be found in financing home nursing organizations, in the Netherlands this is by a budget partly based on the proportion of persons over 70 years and some other indicators of a region, in Belgium by a mixed system of payment per item of service and *per diem* remuneration, and in Germany by a complete fee-for-service system

Germany differs from the other countries in the fact that home help and home nursing have been integrated in many cases Both services are often provided by one single *Sozialstation* (social station) In Belgium these two services are completely separated In the Netherlands there

Table 1 Essential characteristics of community and home nursing in the countries studied (situation in 1990/91)

Essential characteristics	Belgium	Germany	The Netherlands
Financing/insurance			
(a) General	Part of public health insurance 25% out of pocket payment, but not for widows, orphans, the disabled and pensioners	Part of public health insurance (60%) plus federal or state taxes private health insurance, umbrella organizations and out of pocket payment	Since 1981 part of (public) catastrophic illness insurance plus membership fee of appr 20 ECUs per year
(b) Remuneration of organization	Technical services per item of service Care-dependent patients *per diem* depending on severity of case	Governmental subsidy depending on the number and qualifications of personnel Fee for service payment by insurance companies	Organization receives budget dependent on percentage of those over 70 and in region, and some other indicators, plus membership fees, plus budget for well-baby care
(c) Remuneration of personnel	Monthly salary (mostly part-time employment) for employees' home care organization Independent nurses are paid directly by insurances	A fixed monthly salary or payment on an hourly basis	Salary dependent on qualification (full nurse–nurse auxiliary)
Legal conditions			
(a) General	Obligation for children to maintain parents if indigent	Obligation for children to maintain parents if indigent	No obligation for children to maintain parents since 1965 (General Support Act)
(b) Vocational	Title 'nurse' protected	No protection of title 'nurse'	Title 'nurse' protected
(c) Relationship with medical profession	For severely care-dependent patients direct access For injections and technical interventions authorization from physicians needed	All home nursing requires authorization by physician	Directly accessible no physician authorization needed
Supply			
(a) Type of organization	White/Yellow Cross—nationwide organization for home nursing, plus independent nurses in private practices	'Pillarized' welfare organization (Roman Catholic, Protestant, Socialist)	Single national home care organization plus limited number of private nurses
(b) Type of services provided by organization	Home nursing	Home nursing and home help (in many cases)	Home nursing and well-baby care
(c) Type of care provided by personnel	Personal care, technical nursing procedures and psychosocial activities	Helping the patient with basic needs, more technical nursing activities and home help	Mother and child care in child health clinic sessions and nursing activities during home visits
Demand			
(a) Population over 65 in Euregion	8 9%	14 2%	10 7%
Population over 75 in Euregion	3 4%	5 9%	4 0%
(b) Population permanently residing in institutions	5 1%	4 5%	7 7%
(c) Life expectancy at birth	72 (men) 79 (women)	73 (men)* 79 (women)*	74 (men) 80 (women)
(d) Age adjusted death rate (direct standardization)†	107	105	92

* Figures from 1989
† Figures from 1985
Sources Philipsen (1985), van de Ven (1988), Derksen (1991), Nijkamp *et al* (1991), Verheij & Kerkstra (1992), Boerma *et al* (1993)

is a growing tendency to merge the governing boards of home help and home nursing organizations, but, certainly in 1991, the practical integration of both services was exceptional

Traditionally Dutch community nurses provide both well-baby care and home nursing services, in both other countries (as in the United Kingdom) these preventive well-baby services are provided by a different organization

In Germany and Belgium home care is not provided by one single organization (like in the Netherlands) but by different denominations (Roman Catholic, Protestant and Socialist in Germany, Roman Catholic and Socialist in Belgium) A comparable situation existed in the Netherlands until the mid-seventies (with one Roman Catholic, one general and one Protestant organization) until all organizations merged into the National Cross Association

EXPECTATIONS

From these general differences a set of expectations can be derived These can be divided into expectations regarding the severity of the patient's situation (the 'level of care dependency'), the actual provision of services and the nurse's job interpretation and job satisfaction

Expectations regarding the level of care dependency

The higher proportion of institutionalized elderly people in the Netherlands might lead to a relatively lighter case load in the Netherlands compared with the other two countries, especially because community nurses do not provide services in homes for the aged in the Netherlands

The living situation of elderly people will also be different, we expect more elderly people to be living with their children in Belgium and Germany than in the Netherlands

Expectations regarding the provision of services by community nurses

The financing by budget of the Dutch home nursing associations and the reluctance of Dutch home nurses to comply with medical supervision will most probably lead to a lower number of technical services performed by Dutch community nurses

Direct access of home nursing in the Netherlands and an increasing degree of medical authorization in the Netherlands, compared with Belgium and Germany, will lead to the Netherlands having the lowest proportion of patients arriving via the medical profession and the highest number of direct arrivals Germany will show the opposite pattern and Belgium is expected to occupy the position in between

The integration of home help and home nursing in Germany will probably lead to a less strict separation of home help and home nursing activities in Germany compared with the other two countries This will show both in the actual services and in the job interpretation

The greater dispersion of the German *Sozialstationen* due to the different denominations might lead to higher travel times for the German nurses

Expectations regarding job interpretation and job satisfaction

It was already predicted that German community nurses would be more likely to describe domestic services as part of their job Finally, we predict that Dutch community nurses will have a higher job satisfaction due to their greater independence (especially from the medical profession)

Previous studies

Some of these expectations are (partially) supported by previous studies Kerkstra & Voskuilen (1992) compared the work-profiles of Dutch and Belgian community nurses based on a secondary analysis of a Dutch nationwide survey of community nurses' activities (Vorst Thijssen *et al* 1990) and two Belgian studies by Geys & Van Loon (1989, 1990) who used routinely available data on Belgian community nurses' services They found that Belgian nurses provided more curative and technical services than their Dutch colleagues and less preventive and supportive care The authors state however that the differences found could be due to the differences in data sources, Belgian data consisting of administrative and financially relevant items and Dutch data stemming from self-recorded survey registration

Further specification of the research questions

After formulating the expectations, the research questions can be specified as follows

1 To what extent can differences between community nursing in Belgium, Germany and the Netherlands in (a) patients' level of care dependency, (b) services provided by community nurses, and (c) job interpretation and job satisfaction, be derived from characteristics of the health care and social security system according to the expectations formulated in the introduction?
2 Will differences found in previous studies (especially between community nursing in the Netherlands and Belgium) also be found if comparable and similar measuring instruments are used?

THE STUDY

The study was carried out in the 'Euregion', the area where the borders of Germany, Belgium and the Netherlands meet

Several home nursing organizations (in Maastricht and the surrounding area, in the Dutch speaking Belgian province of Limburg and in several *Sozialstationen* of different denominations in the region of Aachen/Stolberg) were approached for cooperation The organizations passed this request to nursing units who participated on a voluntary base A target of approximately 30 nurses per country was set in order to allow for some crude testing of differences (by chi-square or *t*-tests)

The nurses were asked during 1 week in late summer and early autumn in 1991

1. to assess (at the first contact) the physical and mental health status and living conditions of all home nursing patients during this week (for the Dutch nurses this implied the exclusion of well-baby care),
2. to record their activities during all contacts with these patients, and
3. to complete a questionnaire on job interpretation and job satisfaction

The basic characteristics of the sample are shown in Table 2 No male nurses were employed in Belgium The age of the nurses did not differ significantly (due to the high standard deviation in Germany) Employment did differ nurses in Germany were predominantly full-time employed, in the Netherlands approximately 60% had a full-time job, but in Belgium most nurses worked 20–28 hours

The size of the teams varied considerably, in Germany and the Netherlands it was between 10 and 15 persons and in Belgium the average was 53 persons The Belgian home nursing organization with large teams of part-time nurses differs strongly from the other two countries

Measurement instruments

The three core concepts the condition of the patients (the level of care-dependency), the services provided and the nurses' job interpretation and satisfaction have been elaborated as follows

Patient's condition

The condition of the patient has been operationalized by taking the standard condition assessment scale used (since Spring 1991) by Belgian community nurses to assess the degree of care dependency of their clients The instrument consists of the original Katz ADL-scale (Katz *et al* 1963) and has been extended by the White/Yellow Cross Organization to include mental condition (restlessness/nervousness and memory problems), housing and living conditions and the availability of informal care, this all resulting in a score of which the physical condition scale (the Katz-scale) has a direct relationship with the *per diem* reimbursement This ADL-scale has a six-point range, the highest scores are obtained for incontinent patients or patients who cannot eat or drink without help For scores of 0–2 no *per diem* reimbursement is applicable (fee for service only and medical authorization required, with a maximum), for scores of 3 and 4 the lowest reimbursement category applies (1991, BF 450, ECU 10,65) and for scores of 5 and 6 the highest category (1991, BF 750, ECU 17,76) applies

The mental condition scale consists of two elements (0–3 rating scale) an estimate of time and place orientation and/or assessment of the degree of restlessness Finally, the availability of informal care (under the same roof or elsewhere) and the housing quality (bathing and warm water facilities, 0–2 rating) complete the list

As the Belgian scales were available in Dutch (including instructions) no translation problems existed for the Dutch situation, in order to be applicable in Germany a translation took place Dutch and German nurses were instructed by the investigator who did the study as a master's thesis in nursing science (Derksen 1991) The Belgian nurses were already familiar with its use

Services provided

The community nursing care provided was measured using the patient contact registration form developed by

Table 2 Sample characteristics and basic information

	Bel	Ger	Net	Total
Number of nurses	30	22	35	87
(of which male nurses)	0	4	5	9
Average age	30	36	32	32 4
Number of years job experience	7	7	6	
Number of patient profiles (/wk)	729	361	706	1796
Number of home visits (/wk)	2178	1569	1416	5163
Average team size	50–55	13–14	11–12	
Number of working hours (/wk)	27	38	34	32 8

Kerkstra & Vorst-Thijssen (1991) for a nationwide survey on community nursing in the Netherlands For each home visit a form was completed containing information regarding the patient's name, sex, age, living situation, diagnosis, the motives for visiting the patient at home, whether or not the patient is receiving informal care, the time of arrival and departure of the community nurse and the type of care provided A detailed list of activities was divided into the following main headings

1 Hygienic care help with washing, dressing and the lavatory, bathing the patient, and care of hair, nails and feet
2 Self-care stimulation of the patient's self-care
3 Domestic care preparing food and drinks, and cleaning the bathroom, etc
4 Technical care care of pressure sores and wounds, stomacare, catherization, etc
5 Injections all sorts of injections administered during a home visit
6 Moral support listening, empathic understanding and advising
7 Family support giving advice to relatives, giving instructions on nursing care, and discussing the workload of the informal caregivers
8 Health education giving information to the patient regarding the nature of the illness, the use of medicines, the possibility of self-care and informal care, auxiliary apparatus and adaptation of the house
9 Observation observation of new physical symptoms, and mental or social problems
10 Administration recording information about the patient and the care given to the patient on the patient's card

In order to explore the dimensionality of these activities a factor analysis (principal components with orthogonal varimax rotation) was performed (Table 3)

The three-factor solution, accounting for 62 4% of the variance is presented in Table 3 The first factor, containing health education, psychosocial care, the support of informal care and observation can be labelled as 'care' It refers to the personal, general and affective aspects of treatment, generally and for a long period considered as crucial for therapeutic effectiveness (Carkhuff 1969, White 1988)

The second factor contains hygienic personal care, stimulating self-care, domestic care and technical activities, while injections load negatively This can be interpreted as a typical instrumental factor to be labelled as 'cure', although the negative loading of injections justifies exclusion of this variable from the actual factor construction The indicator for homogeneity (Cronbach's alpha) is much better (0 73) when injections are excluded than when included (0 47) Both dimensions form the core elements of health care, both in the medical sector and in nursing Finally, administrative procedures form a category of their own

Table 3 Factor analysis of aggregated data on service provision by community nurses ($n=87$) (Principal component analysis with varimax rotation, three factor solution)

Type of care	Factor 1 Care	Factor 2 Cure	Factor 3 Administration
Health education	0 90	0 18	0 17
Psychosocial care	0 89	0 07	0 19
Support informal care	0 75	0 04	0 18
Observation	0 66	0 17	0 17
Hygienic care	0 04	0 90	−0 01
Domestic activities	−0 05	0 78	0 22
Technical nursing care	0 38	0 61	−0 34
Stimulating self-care	0 36	0 50	0 14
Injections	−0 20	−0 48	−0 16
Administration	0 16	0 10	0 89
Explained variance	36 4%	16 8%	11 0%
Cronbach's alpha	0 82	0 47 0 73*	na

* Without injections

Job interpretation and job satisfaction

The term 'job interpretation' refers to the set of tasks that nurses consider to form their job As no validated questionnaire on this particular subject was available, an *ad hoc* scale was constructed containing 10 separate tasks (Table 4), derived from the literature on home nursing (Vorst-Thijssen *et al* 1990, Verheij & Kerkstra 1992) and some common sense The nurses had to judge whether they considered the specific tasks as part of their jobs (on a three-point scale) In order to reduce the number of dimensions the items were subjected to a similar factor analysis as presented in Table 3, the results are presented in Table 4

The factors 'preventive/supportive care', 'domestic care' and 'curative/technical care' are clearly interpretable The first and the third factors are similar to the care and cure factors in the actual activities, domestic care appearing separately This is most probably due to the fact that in the questionnaire more attention was paid to the subject than in real life Scores were obtained by adding the items, the alpha for the preventive/supportive scale was 0 53 (and for the other two dimensions respectively 0 65 and 0 56)

No available scale could be found to measure job satisfaction of community nurses So a scale was derived from Stevens *et al* (1992), who studied the tension between professional responsibility and independence and the organizational requirements of medical specialists in general and university hospitals

Factor analysis (Table 5) yielded three easily interpretable factors, satisfaction with the organization, satisfaction

Table 4 Factor analysis of nurses' job interpretation ($n = 87$), principal component analysis with orthogonal varimax rotation three factor solution

Type of tasks	Factor 1 Preventive/ supportive	Factor 2 Domestic care	Factor 3 Technical care
Coordination of care	0 70	0 04	0 04
Health education	0 69	−0 14	0 04
Preventive home visits	0 59	−0 17	−0 26
Psychosocial care	0 54	0 38	0 21
Improving self-care	0 46	0 00	−0 14
Domestic care combined with nursing activities	0 08	0 85	0 12
Domestic care	0 05	0 81	−0 21
Technical nursing care	0 02	0 05	0 87
Hygienic/personal care	0 13	0 10	0 79
Explained variance	21 1%	17 5%	17 0%
Cronbach's alpha	0 53	0 65	0 56

Table 5 Factor analysis of nurses' job satisfaction ($n = 87$), principal component analysis with orthogonal varimax rotation (3 factor solution)

Job aspects	Factor 1 Organization conditions	Factor 2 Professional conditions	Factor 3 Social conditions
Homecare organization as a whole	0 71	0 41	0 07
Organization of night and weekend duties	0 63	0 26	0 29
Career possibilities	0 60	0 40	0 17
Income	0 58	0 04	0 36
Time for your work	0 57	0 18	0 21
Working conditions	0 51	0 15	0 04
Contacts with other disciplines	−0 48	0 31	−0 08
Opportunity for high quality care	0 07	0 72	0 09
Continuous education/training with practice	0 16	0 66	0 01
Autonomy in patients' care	0 06	0 66	0 08
Supervision management	0 23	0 53	0 28
Opportunity for independent working	0 04	0 53	0 46
Opportunity for postgraduate education	0 09	0 43	0 04
Relations with colleagues	0 10	0 11	0 68
Contact with other comm nurses	0 22	0 14	0 57
Appreciation by outsiders	0 40	0 14	0 57
Appreciation by patients	0 32	0 22	0 45
Explained variance	25 9%	9 8%	8 8%
Cronbach's alpha	0 68 0 77*	0 68	0 49

* Without contacts with other disciplines

with professional conditions, and satisfaction with the social aspects of the job Cronbach's alpha's were respectively 0 68, 0 68 and 0 49

RESULTS

In Table 6 some background characteristics of the patients are presented German patients were the oldest and Dutch patients the youngest, there was an average difference of 5 years between Germany and the Netherlands The age differences also have an indirect effect (there are more older women than men) on the sex distribution 35% of patients were male in the Netherlands and 26% in Germany In Belgium the lowest percentage of persons were living alone, 35% against 44% and 42% respectively in Germany and the Netherlands The availability of informal care does not differ significantly between the countries but there are differences in the type of informal care, in

Table 6 Basic characteristics of patients under treatment

	Bel ($n=729$)	Ger ($n=361$)	Net ($n=706$)	Significant differences
Average age	74 4	77 6	72 8	Ger vs Bel , Net **
% under 65 years	20	11	21	Ger vs Bel , Net.*
% over 75 years	55	67	47	Bel vs Ger vs Net *
% male patients	30	26	35	Bel vs Ger vs Net *
% living alone	35	44	42	Bel vs Ger , Net *
% living with partner	40	31	41	Ger vs Bel , Net *
% living with children or other family	32	35	25	Net vs Bel , Ger *
Type of referral to community care				
Self-referral (%)	43	47	51	Bel vs Ger vs Net *
General practitioners (%)	30	50	12	Bel vs Ger vs Net *
Hospital/nursing home (%)	11	13	30	Net vs Bel , Ger *

* Differences tested by chi-square, $P<0\ 05$
** Differences tested by t-test, $P<0\ 05$

the Netherlands 25% of patients lived with children or other family, in Belgium 32% and in Germany 35% The difference between the Netherlands and the two other countries is significant

The number of patients referred by general practitioners is, as predicted, highest in Germany (50%), followed by Belgium (30%) and the Netherlands (12%) It was not predicted that the Dutch nurses had almost three times as many patients referred from institutional care

The level of care dependency (physical and mental) is presented in Table 7 The scores of the Katz scale are presented separately (including the average) and categorically, the categories being derived from the Belgian remuneration system Mental health status is presented per item (orientation problems and restlessness)

From Table 7 it can be seen that the average rate for physical dependency is highest in Belgium, in Belgium the maximum rate (6) has the highest frequency The proportion of patients with 'low need of care (0–2)' is 67% (the Netherlands), 70% (Germany) and 49% (Belgium) Mental health status is lowest in Germany and does not differ between Belgium and the Netherlands The Belgian nurses give the maximum score in a significantly higher number of cases, possible financial explanations for this phenomenon will be discussed in the discussion section The poorer mental health status in Germany cannot be explained with previous knowledge or *ad hoc* interpretation

Provision of services

From the factor analysis presented in Table 3, two dimensions were derived, care and cure, while injections and administration were considered separately As specific expectations about domestic care were formulated, this type of care should also be considered separately

The differences regarding the services provided by community nurses in the three countries are shown in Table 8 This table also includes information about the number and duration of home visits and travel time As predicted, Dutch nurses provide significantly more care than nurses in both other countries Belgian nurses record more domestic activities and German nurses record almost no administrative duties The largest differences, however, are found in the number of injections (especially for diabetic patients) Dutch nurses record an injection in 16% of the home visits, Belgian nurses in 29% and German nurses in 45%

The number and duration of the visits also differs considerably Dutch nurses (who, one should keep in mind, also provide preventive/well-baby care) have the lowest number with the longest duration (eight visits, 30 minutes), the Belgian nurses, who usually have 24–28 hour working weeks, do twice as many visits (15 to 16) with half of the duration (17 minutes), and the German nurses can be found somewhere in between (12 visits, 22 minutes) The predicted differences in travel time (highest in Germany due to the denominational lower density of home care organizations) are confirmed Belgian nurses live very close to their clients (42% of the visits have only 0–2 minutes travel time compared with 15% in Holland and 9% in Germany), they apparently do not start their work from the office but live amidst their patients

Job interpretation and job satisfaction

The factors presented in Table 4 were preventive/supportive care, domestic activities and curative/technical care Table 9 contains the differences between the three groups of nurses

No differences in job interpretation with regard to hygienic and technical care were found All nurses

Table 7 Physical and mental condition of patients under treatment (KATZ ADL + mental health assessment)

	Bel (n = 729)	Ger (n = 361)	Net (n = 706)	Significant differences
KATZ ADL scale				
Average score	3 0	2 3	2 1	Bel vs Ger , Net **
Standard deviation	2 4	2 3	2 0	
Proportion 0	21	31	22	Ger vs Net , Bel *
1	15	21	29	
2	13	12	19	
0–2	49	64	70	Bel vs Ger , Net *
Proportion 3	10	3	4	
4	4	7	6	
3–4	14	10	10	
Proportion 5	6	9	9	
6	31	17	11	
5–6	37	26	20	Bel vs Ger Net *
Mental condition				
Restless/nervous				
% occasionally	25	37	28	Ger vs Net , Bel *
% permanently	9	4	8	
Memory problems				
% occasionally	23	28	18	
% permanently	9	7	6	

* Differences tested by chi-square, $P<0\ 05$
** Differences tested by t-test, $P<0\ 05$

Table 8 Services provided by community nurses during home visits

	Bel (n = 2178)	Ger (n = 1569)	Net (n = 1416)	Significant differences
Av number of home visits per nurse per day	15 5	12 0	8 0	Bel vs Ger vs Net **
Av duration of the visit (in minutes)	17 5	22 4	29 0	Bel vs Ger vs Net **
Travel time per visit (min)	4 0	7 6	5 7	Bel vs Ger vs Net **
Care provided (% visits)	41	35	75	Net vs Bel , Ger *
Cure provided (% visits)				
Excl injections	77	71	84	Net vs Bel vs Ger *
Domestic activities	42	22	31	Bel vs Net vs Ger *
Injections	29	45	16	Ger vs Bel vs Net *
Administration (% visits)	33	4	33	Ger vs Bel , Net *

* Differences tested by chi-square, $P<0\ 05$
** Differences tested by t-test, $P<0\ 05$

Table 9 Job interpretation of nurses in the three participating countries, average rating on three dimensions

Type of tasks	Bel (n = 30)	Ger (n = 22)	Net (n = 35)	Significant differences*
Preventive/supportive tasks	13 4	13 5	14 7	Net vs Bel , Ger
Domestic tasks	3 7	4 6	3 3	Ger vs Net , Bel
Hygienic/technical tasks	5 9	5 8	5 9	

* Differences tested by t-test, $P<0\ 05$

consider these aspects as belonging to their job Dutch nurses differ significantly from their Belgian and German colleagues in the degree they consider preventive and supportive tasks as part of their job, while German home nurses consider domestic tasks as part of their job significantly more often than their colleagues in the other two countries

Job satisfaction has been split into three categories organizational conditions, professional conditions and social aspects of the job In Table 10 the results per country are presented

We predicted that Dutch nurses would have the highest satisfaction rates due to their greater independence from medical supervision and the diversity of their activities The results show the opposite, Dutch nurses are the least satisfied with organizational conditions, while the Belgian nurses show the highest satisfaction with their professional conditions Satisfaction about social aspects of the job does not show differences between the countries

DISCUSSION

Returning to the initial questions of this paper, (a) can differences in community nursing between Belgium, Germany and the Netherlands with regard to patient characteristics, service provision and job interpretation and satisfaction be derived from differences in the respective health care and social security systems, and (b) will differences found in previous studies be refuted when comparable methods and research instruments are being used, we can state that the second question can be answered positively and that the answer to the first question is 'to a certain extent' The higher amount of supportive and preventive care provided by Dutch compared to Belgian nurses as found by Kerkstra & Voskuilen (1992) was confirmed in this study and was not due to differences in methods Differences in curative care turned out to stem from differences in the number of injections, especially for diabetic patients The nurses' policy of stimulating self-care in this respect has probably influenced this result It is not true that Dutch nurses provide less technical nursing care such as dressing wounds, preventing decubitus and applying catheters, the major source of differences is the number of injections

Regarding 'method' one element of doubt turned up with respect to the assessment of the patients' care dependency when it became clear that the Belgian nurses, who use the Katz physical condition scale to determine the *per diem* remuneration, had significantly more often used the maximum score of 6 However, as the remuneration cut-off point was 5 and not 6 and a confusion between the rates in the middle scores and the extreme score is not very plausible, we consider the effect of the different use of the rating scale in Belgium versus the other countries as a possible but not very probable effect and conclude that, by and large, the need of care is highest in Belgium, second in Germany and lowest in the Netherlands, the latter being as expected

The following expectations were also confirmed In the Netherlands the proportion of clients living with their children or other family members was lower than in the other two countries This was expected, no expectations were formulated about differences between Belgium and Germany The higher travel times in Germany were correctly predicted, the very low travel times in Belgium were a surprise Belgian community nurses apparently carry out their work in an area around their homes

Some expectations were partially confirmed It was expected that due to the differences in the requirement of medical authorization the proportion of patients referred by doctors would be highest in Germany and lowest in the Netherlands This was correct, but it was not true that the Dutch nurses had the highest number of self-referred contacts This was due to a rather large proportion of patients referred by hospitals and nursing homes, in the Netherlands 35% of the patients came from institutional care, compared with 13% in Belgium and 13% in Germany

German community nurses considered domestic tasks as part of their job significantly more often but in fact did not provide these tasks more often than the nurses in the other two countries (with the exception of preparing food and drinks) The matter of domestic tasks is apparently more complex than it seemed to be

Table 10 Job interpretation of nurses in the three participating countries, average rating on three satisfaction dimensions

Type of satisfaction	Bel ($n=30$)	Ger ($n=22$)	Net ($n=35$)	Significant differences*
Satisfaction with organizational conditions	23 4	23 4	21 0	Net vs Bel , Ger
Satisfaction with professional conditions	24 0	24 0	22 0	Net vs Bel , Ger
Satisfaction with social aspects	15 8	15 8	15 4	

* Differences tested by *t*-test, $P<0\ 05$

Finally, the expectation that the Dutch nurses would have the highest job satisfaction was not confirmed This might have different causes Firstly, the hypothesis might be wrong, relative independence from medical supervision might increase the burden of responsibility

Secondly, the almost permanent state of reorganization of the Dutch home care associations might be reflected in the lower rates Finally, the Dutch culture might allow more complaints than the Belgian and German culture According to the studies of Hofstede (1984) the Dutch culture is a typical north-west European culture with feminine and egalitarian elements, while the Belgian culture forms part of the more masculine and authoritarian Latin tradition, and Germany finds itself somewhere in between

The major conclusion, however, that can be derived from this study, is that the role of community nurses in the treatment of diabetic patients forms the most important difference between the countries This points to a more specific follow-up study in the way diabetic patients are being detected and treated by primary versus secondary nursing and medical care

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