

On regional differences in duration of sick leave: the role of work, personal and health characteristics

by

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Abstract

Objectives: *The aim of this study is to explore the influence of determinants of duration of sick leave on in age and profession homogeneous groups in two different regions in the Netherlands. Apart from a statistical comparison of duration of sick leave in these regions, a literature search on determinants of duration of sick leave, spread over the last decades, was performed to get an impression of the topicality of the study.*

Methods: *184 participants in the regions Utrecht and South-Limburg were interviewed about work, personal and health characteristics. Data of duration of sick leave were obtained from a Dutch social fund. Later, a literature search on determinants of duration of sick leave was performed.*

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Results: *The statistical comparison of duration of sick leave in the two different regions showed that in South-Limburg determinants of 'state of health', 'motivation', 'work conditions' and 'work relations' were associated with duration of sick leave, whereas in Utrecht less predicting determinants were found, namely for 'work contents'. The literature search gives a quite consistent picture of determinants of duration of sick leave over the last decades.*

Conclusions: *In either of the investigated regions different determinants were associated with duration of sick leave. Thus, nationwide interventions to reduce duration of sick leave are useless without taking into account the existence of regional differences in determinants that predict duration of sick leave. Determinants of duration of sick leave did not change in the last decades, therefore the results of the study are, although performed in the nineties, still relevant.*

Keywords: *regions, homogeneous groups, duration of sick leave, determinants, the Netherlands*

Introduction

In the Netherlands some studies show a difference in duration of sick leave between regions. Soeters (1) and Tordoir et al. (2) observed, in the region South-Limburg, a longer duration of sick leave than in the rest of the country. The most important outcome of studies on regional differences in duration of sick leave is that these are a consequence of socio-economic class differences, socio-economic development and circumstances (3-8).

We did not come across any study which compared between different regions the relation between a same set of relevant determinants of duration of sick leave and duration of sick leave.

Therefore the research question is: are there, between homogeneous groups in different regions within one country, differences in determinants of duration of sick leave?

This question is divided in four subquestions: (1) how do, for homogeneous groups, the sick leave durations in different regions relate to each other; (2) how do, for homogeneous groups in different regions, the scores per determinant of duration of sick leave relate to each other; (3) how does, between homogeneous groups in different regions, duration of sick leave relate to relevant determinants; (4) are there, between homogeneous groups in different regions, differences in determinants that predict duration of sick leave?

To answer these questions a literature search was necessary to get a picture of determinants of duration of sick leave until begin nineties; aim was to form a set of relevant determinants. To estimate the topicality of the study, we considered it opportune to review literature later than the beginning of the nineties as well.

Until 1993 a broad spectrum of determinants was investigated in a number of Dutch studies (9-12). Determinants of the work situation are a prominent cause of the duration of sick leave (10-11, 13-14). A review was made of the literature on the relation between duration of sick leave and 'work conditions' i.e. **satisfaction** (10-11, 15-20) and **support** (21-26), the way employers deal with sick employees is of influence as is an early start with reintegration activities (27-31); furthermore on 'work contents' i.e. **autonomy** on the workplace (32-36) and **pace and pressure** (11,25, 36-38), 'work relations' with colleagues and supervisors (10-11, 39-40) and 'work circumstances' i.e. **climate** (11, 41-42).

In literature 'state of health' is considered from two points of view: (a) perceived health as a consequence of **physical and mental workload** (11,36, 43-45) and (b) health complaints (20, 46-50). According to Schröer (14), one's sickness record, perceived health, psychic and psychosomatic complaints, physical limitations and lifestyle are determinants that lengthen duration of sick leave; as is consulting doctors. Programmes to improve the health of employees are important (51-52). **Drug use** lengthens duration of sick leave (11,53).

Work and private life may influence the 'motivation' to return to work (11, 54-57).

Regarding personal characteristics and circumstances, **women** (6, 10-11, 58-60), **older** employees (10-11, 61-63), employees with a lower **education** (9-11, 37,44,63) or a **lesser social-economic status** or a long **duration of employment** (11,37,62,64), show a longer duration of sick leave. The same goes for smokers (11, 65-67) and drinkers (10-11, 15,44, 68-69). Differences in duration of sick leave between the sexes are mostly attributed to aspects of the workplace (58,60, 70-71).

According to Schröer (14) differences in duration of sick leave are a consequence of gender, age, level of education, marital status, the number of children and the burden in one's private life.

Social and demographic developments, or economic transformation, influence duration of sick leave, i.e. unemployment leads to a longer duration (72-75).

After review of the literature of the last decades we can conclude that determinants of duration of sick leave show a rather consistent picture.

Methods

We aimed to study, in homogeneous groups as to age and profession in different regions within one country, the relation between relevant determinants of duration of sick leave and duration of sick leave itself. Primarily we should answer the question which are, according to literature of the last decades, the relevant determinants. The literature search refers to a number of Dutch studies on determinants of duration of sick leave until October 1993 (9-12). For the period after 1993 (inter)national scientific journals, academic theses and Medline were consulted.

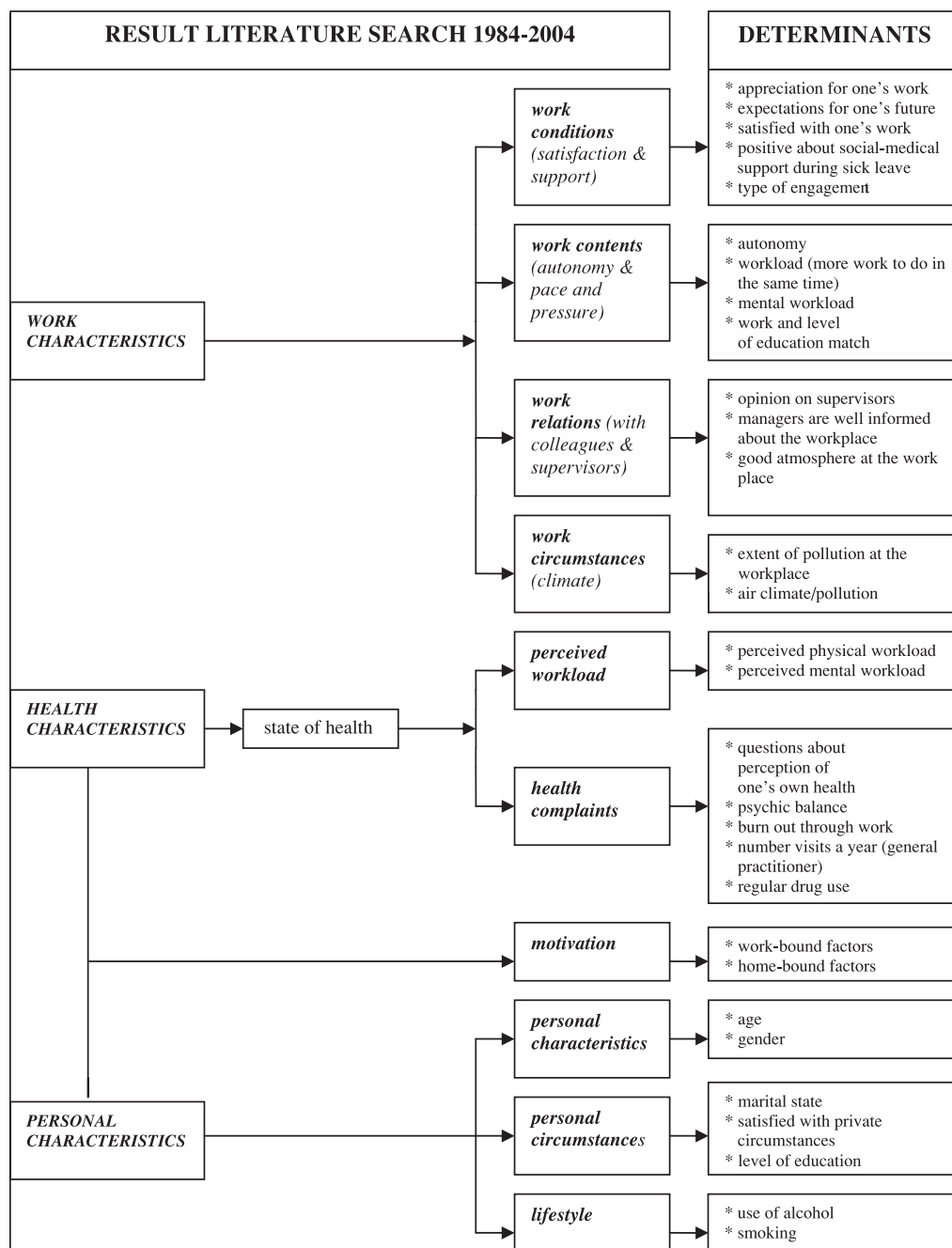
As one of the authors worked for a Dutch social fund that registered the duration of sick leave per region – be it only for specific professional groups (sales, cleaning, trade) – it was possible to compare the relation between relevant determinants of duration of sick leave and the per region registered duration of sick leave. It was observed that, in different regions, sales and cleaning showed a remarkable difference in duration of sick leave. For this reason two such regions were chosen: Utrecht (Utrecht and surroundings) and South-Limburg (including Heerlen and Maastricht); a choice was made for one professional group, namely sales.

The research group was contacted at the moment one reported sick for work. This was the most suitable moment, because within a week most of the people who reported to be ill (> 95%) were visited by a controlling official.

Participants had to be 20 to 40 years of age and the reason of them reporting ill had to be 'low back pain' or 'uncomplicated stress'. The choice for these diagnostic categories had a pragmatic basis: the assumption was that, with these frequently occurring diagnoses, we would reach a substantial number of participants (at least 50 to 100 per region) within a relative short period (6 months). 184 employees (79 in Utrecht, 105 in South-Limburg) agreed to participate. This number was the spontaneous outcome of the interview period of six months as result of an a-select procedure in which each next employee, who applied to the conditions, was asked to participate.

Personal and work characteristics of the participants were partly obtained by a special form, filled in by the employer and sent to the social fund, in which the first day of sick leave was reported. In case the

Figure 1:
Result literature search/Determinants

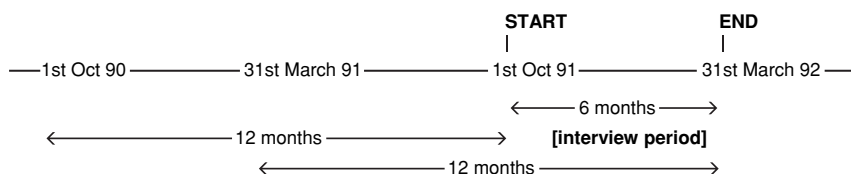


employee agreed with participation, a booklet with questions was handed over with the request to fill it in. In accordance with the result of the literature search (which covered literature up to October 1993), the booklet consisted of sets of questions that referred to the found determinants. Figure 1 gives the origin of these questions. The figure also reflects the finding that the result of the literature search shows a remarkable consistency in the years 1984-2004. Determinants of a same category were brought together. The thus categorized determinants form the independent variables whereas 'duration of sick leave' is the dependent one.

Parameters of social and demographic developments were not investigated as legal, political and socio-economic status and developments were equal all over the country and the research group was homogeneous.

We used the selected determinants as a basis for statistical analysis. In South-Limburg, 81.9% of the distributed booklets was filled out and returned, in Utrecht 63.3%.

A study on the mean duration of sick leave needs a certain period of registration, in this study the year before the day one reported oneself ill. For those who reported ill on the first of October 1991, we referred to the period beginning on the first of October 1990, for those who reported ill on the first of December 1991, we referred to the period beginning on the first of December 1990, and so on. The mean duration of sick leave in the referred year was used in the analysis. Therefore, the timetable of the study, including the 12 month period preceding the started spell of sick leave, is as follows:



For statistical reasons the collected answers were classified and, as a result of a factor analysis (not presented here), brought together in composed determinants. In Table 1 these determinants are classified in accordance with those in Figure 1 and the meaning is given of the score as well as – in case of the composed determinants – the number of items and Cronbach's alpha.

TABLE 1.
The selected determinants, meaning of the score

Independent determinants	Number of items	Cronbach's alpha	Meaning of the score ¹
Work conditions			
appreciation for one's work (<i>sum</i>)	4	.78	the higher the more > sdsI
expectations for one's future (<i>sum</i>)	4	.80	the higher the better > sdsI
satisfied with one's work (<i>yes=1/no=0</i>)			the higher the more > sdsI
positive about social-medical support during sick leave (<i>yes=1/no=0</i>)			the higher the more positive: indifferent ²
type of engagement (<i>permanent=1/temporarily=0</i>)			indifferent
Work contents			
autonomy (<i>sum</i>)	8	.77	the higher the more > sdsI
workload (more work in the same time) (<i>yes=1/no=0</i>)			the higher the more > ldsI
mental workload (<i>yes=1/no=0</i>)			the heavier > ldsI
work and level of education match (<i>yes=1/no=0</i>)			the higher the better > sdsI
Work relations			
opinion on supervisors (<i>sum</i>)	9	.90	the higher the more positive > sdsI
managers are well informed about the workplace (<i>yes=1/no=0</i>)			the higher the better > sdsI
good atmosphere at the workplace (<i>yes=1/no=0</i>)			the higher the better > sdsI
State of health (perceived workload):			
perceived physical workload (<i>sum</i>)	10	.77	the higher the heavier > ldsI
perceived mental workload (<i>sum</i>)	5	.72	the higher the heavier > ldsI
State of health (health complaints):			
questions about one's perception of one's own health (<i>sum</i>)	22	.86	the higher the more perception of bad health > ldsI
psychic balance (<i>sum</i>)	21	.86	higher less in balance > ldsI
burnout through one's work (<i>sum</i>)	6	.72	the higher the more severe > ldsI
number visits a year (family doctor)			more often worse health > ldsI
regular drug use (<i>yes=1/no=0</i>)			more use the worse health > ldsI
Motivation			
work-bound factors (<i>yes=1/no=0</i>)			higher more pleasure work > sdsI
home-bound factors (<i>sum</i>)	8	.70	higher less motivated work > ldsI
Personal characteristics & Circumstances			
age			the older > sdsI
gender (<i>w=1/m=0</i>)			women > ldsI
marital state (<i>married=1/unmarried=0</i>)			married > sdsI
satisfied with private circumstances (<i>yes=1/no=0</i>)			the more > sdsI
level of education (<i>high=1, from low to secondary=0</i>)			high level > sdsI
use of alcohol (<i>yes=1, no=0</i>)			drinking > ldsI
smoking (<i>yes=1, no=0</i>)			smoking > ldsI ¹

¹ The direction of the score is mentioned together with (on the basis of the performed literature search) the *assumed* influence on the duration of sick leave (**sdsI** = shorter duration of sick leave; **ldsI** = longer duration of sick leave).

² Indifferent: literature is not in unison or very scarce.

Cronbach's alpha level was fixed on .70 because this is a rather safe number as the value is less dependent on the number of items (that constitute the composed determinant) than in case you take a higher level (.76). Some composed determinants missed internal coherence (Cronbach's $\alpha < .70$) and were eliminated. It concerns the work circumstances 'extent of pollution on the work place' and 'air climate/pollution'.

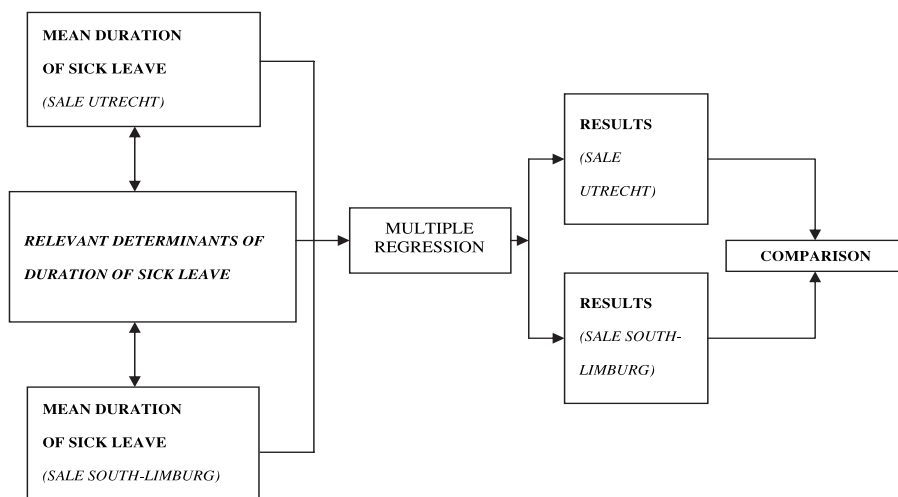
Figure 2 presents the design of the study. The relation between the same set of determinants of duration of sick leave on the one hand and sick leave on the other, is analysed for homogeneous groups in Utrecht and South-Limburg. This gives for either region certain results, which are consequently compared with each other.

A missing data analysis was performed in order to estimate the extent to which missing data occurred and might influence results. If possible, that is in case their number did not exceed 10%, missing data were imputed.

A boxplot was performed to check the possible influence of extremes/outliers on the outcome. In case such an influence was found, extremes/outliers were reduced to the next extreme score or replaced by the mean value.

The statistical analysis consists of a: (a) t-test for the dependent determinants in both regions; (b) t-test for independent determinants

Figure 2:
Design of the study



between both regions; (c) regression analysis per region and (d) comparison of the regression coefficients of both regions (77).

In applied research use of the 5% significant level can be inappropriate (78). Such a conservative approach can give an unnecessarily false picture for policymakers, at least when other correlations than the 5% level are not at all considered. This study is an explorative one and one among homogeneous groups. For this reason the limit for p is fixed at .10.

Results

In order to form a set of relevant determinants of duration of sick leave and at the same time get an impression of the topicality of the study, we first had to answer the question which determinants are relevant according to the literature of the last decades.

The literature search gave a quite consistent picture of determinants of duration of sick leave (Figure 1). The conclusion is that the result of this study, although performed in the nineties, is still relevant.

As far as the demographic data are concerned, in South-Limburg the average age was 26.5 years, in Utrecht 26.8 years; in South-Limburg the percentage of female participants was 86.7%, in Utrecht 83.5%; in both regions most participants finished secondary school (South-Limburg 83.8%, Utrecht 93.8%). As a consequence both research groups are of a remarkable homogeneous character.

The research question was: are there, between homogeneous groups in different regions within one country, differences in determinants of duration of sick leave?

This question was divided in four subquestions: (1) how do, for homogeneous groups, the sick leave durations in different regions relate to each other; (2) how do, for homogeneous groups in different regions, the scores per determinant of duration of sick leave relate to each other; (3) how does, between homogeneous groups in different regions, duration of sick leave relate to relevant determinants; (4) are there, between homogeneous groups in different regions, differences in determinants that predict duration of sick leave?

(1) How do, for homogeneous groups, the sick leave durations in different regions relate to each other?

The statistical comparison of the mean duration of sick leave between the two regions showed a difference (t-value: 1.73, p : .085) between

the mean duration of sick leave in South-Limburg (15.9 days; sd: 21.1, N: 102) and that in Utrecht (10.3 days; sd: 20.6, N: 71).

(2) How do, for homogeneous groups in different regions, the scores per determinant of duration of sick leave relate to each other?

Table 2 gives the outcome of the t-test per determinant and the number of participants as well as the mean value (composed determinants) or percentage of positive answers.

In South-Limburg, in comparison with Utrecht, one has better expectations for one's future ('work conditions', $p = .09$), one is more satisfied with one's work ('work conditions', $p = .09$), the management is better informed about the workplace ('work relations', $p = .05$), one expresses more complaints about one's own health ('state of health': health complaints, $p = .03$), the number of married people is higher ('personal characteristics and circumstances': marital state, $p = .01$) and the number of high-educated is higher ('personal characteristics and circumstances', level of education, $p = .06$).

(3) How does, between homogeneous groups in different regions, duration of sick leave relate to relevant determinants?

With a regression analysis, the relation between the selected determinants as independent variables and the mean duration of sick leave as dependent variable, was analysed (Table 3).

In South-Limburg a longer duration of sick leave is observed when one has a permanent engagement ('work conditions', $p = .02$), when one visits more often the family doctor ('state of health': health complaints, $p = .003$) and when there are demotivating factors at home ('motivation', $p = .02$). A shorter duration of sick leave is observed in South-Limburg when one has a positive opinion on one's supervisors ('work relations', $p = .02$) and when one is positive about one's employer ('motivation', $p = .06$). In Utrecht a longer duration of sick leave is observed when one has autonomy on the workplace ('work contents', $p = .09$).

(4) Are there, between homogeneous groups in different regions, differences in determinants that predict duration of sick leave?

The comparison to establish a possible difference in regression coefficients between the two regions (Table 4) leads to the conclusion that, in case of the determinants 'autonomy', 'opinion on supervisors', 'number of visits a year (family doctor)', 'work bound factors' and 'home bound factors', a difference between the regions was found.

TABLE 2.
Comparison of the scores

Determinants	N	Utrecht	N	South-limburg	p
Work conditions					
appreciation for one's work (<i>sum</i>)	50	1.49 (.40 ¹)	85	1.51 (.40)	ns ²
expectations for one's future (<i>sum</i>)	50	1.46 (.38)	84	1.58 (.41)	.09
satisfied with one's work	50	71%	86	84%	.09
positive about social-medical support during sick leave	50	25%	83	35%	ns
type of engagement	50	92%	86	84%	ns
Work contents					
autonomy (<i>sum</i>)	50	1.48 (.28)	83	1.47 (.32)	ns
workload	45	22%	66	30%	ns
(more work to do in the same time)					
mental workload	50	60%	83	68%	ns
work and level of education match	50	55%	82	57%	ns
Work relations					
opinion on supervisors (<i>sum</i>)	49	1.56	(.32) 75	1.59 (.36)	ns
managers are well informed about the workplace	49	62%	82	78%	.05
good atmosphere at the workplace	50	63%	85	72%	ns
State of health: perceived workload					
perceived physical workload (<i>sum</i>)	47	1.39 (.23)	80	1.44 (.26)	ns
perceived mental workload (<i>sum</i>)	46	1.15 (.23)	78	1.13 (.26)	ns
State of health: health complaints					
questions of perception of one's own health (<i>sum</i>)	50	1.33 (.20)	85	1.40 (.21)	.03
psychic balance (<i>sum</i>)	50	1.30 (.22)	85	1.32 (.25)	ns
burnout through work (<i>sum</i>)	50	1.31 (.28)	78	1.39 (.29)	ns
number visits a year (family doctor) (<i>sum</i>)	49	2.98 (2.48)	82	3.41 (2.37)	ns
regular drug use	50	34%	86	41%	ns
Motivation					
work-bound factors	50	70%	78	68%	ns
home-bound factors (<i>sum</i>)	30	1.10	(.15) 59	1.11 (.16)	ns
Personal characteristics and circumstances					
age	79	26.82	(6.25) 105	26.49 (6.05)	ns
gender					ns
Women	66	84%	91	87%	
Men	13	17%	14	13%	
marital state					.01
Married	28	35%	57	54%	
Unmarried	51	65%	48	46%	
satisfied with private circumstances	50	92%	85	91%	ns
level of education					.06
High	3	6%	13	16%	
From low till secondary	45	94%	67	84%	
use of alcohol	34	62%	86	84%	ns
smoking	48	67%	71	69%	ns

¹standard deviation

²not significant

TABLE 3.
Results of the regression analysis -per region- of determinants
and duration of sick leave with*: $p < .10$

Determinants:	UTRECHT			SOUTH-LIMBURG		
	adjusted R Square	Beta	Sig T	adjusted R Square	Beta	Sig T
Work conditions	.03(N=47)			.07(N=86)		
type of engagement		-.07	.64		.26	.02*
Work contents	.02 (N=45)			.04(N=56)		
autonomy		.27	.09*		-.21	.13
Work relations	-.02(N=42)			.04(N=70)		
opinion on supervisors		.22	.27		-.37	.02*
State of health: health complaints	.003(N=50)			.18(N=85)		
number visits a year (family doctor)		-.00	.98		.34	.003*
Motivation	-.07(N=24)			.16(N=52)		
work-bound factors		.15	.49		-.25	.06*
home-bound factors		.0008	.99		.32	.02*

* $p < .10$

TABLE 4.
Determinants that differ in regression coefficient for both regions

DETERMINANT	p
autonomy	.014*
opinion on supervisors	.017*
number visits a year (family doctor)	.029*
work bound factor	.032*
home bound factors	.039*

* $p < .10$

The regression analysis shows that regions differ in determinants that predict duration of sick leave and that the regression coefficients are only partly equal.

The boxplot showed that several determinants had extremes/outliers. Most of them were not of influence on the outcome except for the determinants 'home bound factors' (South-Limburg), 'gender' (Utrecht and South-Limburg) and 'satisfied with private circumstances' (South-Limburg). After reducing the value of the extremes/outliers of 'home bound factors' to the most next extreme score, the strong relation between this determinant and duration of sick leave turned out to be (in contrast to Table 3) no longer existent.

The research question was: are there, between homogeneous groups in different regions within one country, differences in determinants of duration of sick leave?

On the basis of the results of the statistical analysis we conclude that, within one country, regional differences in determinants of duration of sick leave indeed exist, in different regions different determinants predict duration of sick leave.

Discussion and conclusions

In this study we compared, in two socio-economic equal regions and between homogeneous groups, the response to relevant determinants of duration of sick leave.

Duration of sick leave gradually reduced in the Netherlands. At the same time, as a consequence of changes in the organisation of social security, there is no longer a regional registration of duration of sick leave. However, this does not mean that regional differences in duration of sick leave no longer exist and moreover, although performed in the nineties, the consistency in determinants that predict 'duration of sick leave' makes the outcome of the present study still relevant.

Recruiting participants for the study was done at the moment one reported oneself ill. An alternative for this approach, like a study among employees of some big companies, would have been better in reaching the whole group of sales workers. Now only those are reached that, at a certain moment, reported to be ill. For practical reasons the first option was chosen. Relevant personal data, as well as systemically registered individual data of absenteeism, could easily be obtained from the social fund. In fact a choice for some big companies would have had a major disadvantage: the outcome would have been under strong influence of the specific, company-bound, absenteeism culture.

By choosing a reported case of sick leave to recruit participants, it seems that participants at least had one spell of sick leave in the investigated period, and so called 'nil' sick leavers were excluded. This assumption however is not correct. The period we refer to is the 12 month period preceding the first day of sick leave. Therefore it is always possible that participants have a duration of sick leave of 'nil'. However, people who once report ill for work apparently show a greater tendency to take sick leave than people who never do so (79), therefore the results of this study are representative for those employees that, at a certain moment, take sick leave and not for those that never do so.

The whole of the selected determinants was not analysed in one single regression analysis. This would have given a better insight in how the determinants are related to the observed duration of sick leave. A regression analysis of all selected determinants, however, was not a realistic option, because the number (N) of participants actually participating in the analysis would have been, as a consequence of the number of missing data, quite small and the outcome not easy to interpret. Therefore, for pragmatic reasons, the determinants are classified according to the categories they belong to and analysed per category.

In interpreting the outcome, one should realize that possible correlations between the independent determinants were not the object of study, whereas such correlations may exist, for instance a remarkable gender-bound influence may be correlated with specific work conditions. In developing a policy to reduce the mean duration of sick leave in a region, one has to be aware of possible correlations between determinants before drawing conclusions.

Originally the determinant 'use of alcohol' was also considered as one of the determinants of the category 'personal characteristics and circumstances'. However, it turned out that this determinant met so many missing data (>10%) that it had to be excluded from analysis.

As far as the determinants 'gender' and 'satisfied with private circumstances' are concerned, these were skewed to such an extent that, as a consequence, they were less relevant for further analysis.

In case of four determinants ('autonomy', 'opinion on supervisors', 'number of visits to the family doctor' and 'work bound factor') a difference was found in the influence of the concerning determinant on duration of sick leave.

If, in South-Limburg, one is positive about one's supervisor and willing to work for one's employer, there is a tendency to a shorter duration of sick leave, whereas a larger number of consultations of the family doctor leads, in this region, to a longer duration of sick leave. Contradictory with literature (32-36), in Utrecht, a greater autonomy on the workplace has an increasing, instead of a decreasing effect on duration of sick leave. A possible explanation for this result could be that the character of autonomy in this specific situation is paradoxically that of a more 'laissez-faire' approach with less strict supervision of the employer at the workplace.

With regard to the determinant 'home bound factors' we found an inappropriate influence of extremes/outliers on the outcome. This result could not be explained by possible exceptional characteristics (age, gen-

der) of the concerning participants. However, it turned out that within extremes/outliers of 'home bound factors', especially items concerning the burden of household appeared of importance and therefore, in South-Limburg, extra attention for this determinant is recommended.

The results of Utrecht lead to the conclusion that, in this region, apparently other determinants than those analysed in this study, are of influence on duration of sick leave. This finding, as well as the paradoxical finding of autonomy having an increasing effect on duration of sick leave, needs further research for its possible cause.

If one chooses, as done here, for homogeneous groups, i.e. comparable work and personal characteristics, then one may expect that in both groups comparable determinants are of influence on the duration of sick leave. That this is not the case has consequences for the character of interventions per region. Nationwide, general measures to reduce duration of sick leave will not work. Only tailor-made interventions, directed on those determinants that predict duration of sick leave per region, can be effective.

Samenvatting

Het doel van deze studie is de invloed van determinanten van verzuimduur te onderzoeken onder in leeftijd en beroep homogene groepen in twee verschillende regio's in Nederland. Los van een statistische vergelijking van verzuimduur in deze regio's werd, om een indruk te krijgen van de actualiteit van de studie, verspreid over de afgelopen decennia, een literatuuronderzoek naar determinanten van verzuimduur uitgevoerd.

Er werden 184 deelnemers in de regio's Utrecht en Zuid-Limburg geïnterviewd over kenmerken van het werk, de persoon en de gezondheid. Gegevens over verzuimduur werden verkregen van een Nederlandse bedrijfsvereniging. Voorts werd een literatuuronderzoek naar determinanten van verzuimduur uitgevoerd.

De statistische vergelijking van de twee regio's liet zien dat in Zuid-Limburg determinanten van de 'gezondheidstoestand', 'motivatie', 'arbeidsvoorwaarden' en 'arbeidsverhoudingen' met verzuimduur geassocieerd waren, terwijl in Utrecht minder voorspellende determinanten werden gevonden namelijk met betrekking tot 'arbeidsinhoud'. De literatuur over de afgelopen decennia laat een vrij constant beeld zien van determinanten van verzuimduur.

In de onderzochte regio's bleken verschillende determinanten geassocieerd te zijn met verzuimduur. Derhalve zijn nationale interventies om verzuimduur terug te dringen zinloos zonder in aanmerking te nemen dat verzuimduur voorspellende determinanten per regio verschillen. Determinanten van verzuimduur wijzigden in de afgelopen decennia niet, hetgeen betekent dat de resultaten van deze studie, hoewel begin negentiger jaren uitgevoerd, nog steeds van belang zijn.

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