A literature review on sick leave frequency determinants of the past decades
Beemsterboer, W.G.M.; Groothoff, J.W.; Nijuis, F.J.N.

Published in:
Archives of Public Health

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2008

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):
A literature review on sick leave frequency determinants of the past decades

by

Beemsterboer WGM, MSc¹; Groothoff JW, PhD²; Nijhuis FJN, PhD¹

Abstract

Objectives: A literature review on relevant sick leave frequency determinants during the past decades was performed.

Methods: The literature review referred to national and international studies on sick leave frequency determinants.

Results: During the past decades, in research literature, a broad range of sick leave frequency determinants was mentioned in a highly consistent pattern.

Conclusion: Over the past decades sick leave frequency was influenced by a broad range of similar determinants.

Keywords: review, sick leave frequency, determinants

---

Samenvatting

Doelstelling. Een literatuuronderzoek werd uitgevoerd naar determinanten van verzuimfrequentie die de afgelopen decennia van belang waren.

Methode. Het literatuuronderzoek betrof nationale en internationale studies over determinanten van verzuimfrequentie.

Resultaten. In de afgelopen decennia liet de onderzoeksliteratuur voor een breed spectrum van verzuimfrequentie determinanten een stabiel beeld zien.

Conclusie. In de afgelopen decennia werd verzuimfrequentie beïnvloed door een breed spectrum gelijkaardige determinanten.

Trefwoorden: literatuuronderzoek, verzuimfrequentie, determinanten

---

¹ University of Maastricht, Department of Health Organization, Policy and Economics, The Netherlands
² University of Groningen, Department of Health Sciences, Groningen University Medical Center, The Netherlands

Correspondence
willibrordbeemsterboer@uwnet.nl
Introduction

Sick leave is associated with numerous determinants and over the years extensive research, either national or international, has been performed to establish the precise character of these determinants. Studies on sick leave often distinguish between frequency and duration of sick leave. In this review we focus on determinants that give rise to sick leave, i.e. sick leave frequency determinants.

The research question is: For the past decades, according to literature, which sick leave frequency determinants were relevant?

Methods

The aim of the present literature review was to find out which sick leave frequency determinants were relevant during the past decades. Sick leave frequency indicates the number of sickness spells an employee takes a year. This number is influenced by determinants that refer to attitude towards absenteeism, the relation between health and working conditions and working relations and motivation. To identify the relevant sick leave frequency determinants over the past decades, apart from (inter)national scientific journals and academic theses, Medline was consulted.

This literature review focussed on determinants with a general and not a specific character. For instance, the habit of smoking was not detailed to the level of the number of cigarettes a person smokes a day and the duration in months or years of temporary appointments was not specified.

Keywords for the literature review on relevant determinants of sick leave frequency were: absenteeism, sickness absence, sickness spells, sick leave and sick leave frequency. Keywords for determinants of the work situation focussed on the working conditions, the work contents, working relations and the working circumstances. Other keywords referred to lifestyle like smoking and drinking alcohol or to individual characteristics and circumstances like age and gender, marital state and level of education. Keywords referring to the health status were: medical consumption (more specific: visits to the family doctor and frequently taking medicines), health complaints and perception of own health or perceived physical and mental health and perceived physical and mental workload.

Results

The literature review referred to a number of earlier Dutch studies on sick leave frequency determinants (1-6).
As for studies that focus on sick leave frequency determinants, personal well-being (1;7-10), individual factors (8;2-3;11;12-16) and atmosphere at the workplace (2;11;17-26) are regarded as important factors for sick leave frequency.

Sick leave frequency is related to determinants of the work situation i.e. work characteristics, categorised as ‘working conditions’, ‘work contents’, ‘working relations’ and ‘working circumstances’.

In ‘working conditions’ job satisfaction prevails (the less satisfying job, the higher the sick leave frequency) (1;27-31), as do support (lesser support means a higher frequency) (1;19-20;32-34), and type of appointment (in case of a temporary appointment, sick leave frequency can be higher and lower) (1;4-6;27-35). In ‘work contents’ autonomy prevails (more autonomy means a lower sick leave frequency) (1;5;28;36-37) as do pace and pressure (the higher the pace and pressure, the higher the sick leave frequency) (1;3;32;34;38-41). In ‘working relations’ the relations with colleagues and supervisors are important (the poorer the relations, the higher the sick leave frequency) (3;25;34;42-45) as are inconvenient ‘working circumstances’ that lead to a higher sick leave frequency (the poorer the working circumstances in terms of air pollution and climate, the higher the sick leave frequency) (1;3;46-49).

As for health status: health complaints through physical and psychic perceived workload, are an expression of a poor health (the more the physical and psychic perceived workload, the higher the sick leave frequency) (1;16;38;50-54) as are mental problems (the more the mental problems, the higher the sick leave frequency) (29;55-58). Taking medicines means a higher sick leave frequency (1;59). As for motivation: less affinity with one’s work leads to a higher sick leave frequency (1), the same is seen in case of a low working morale (8;34). As for individual characteristics and circumstances: with an increasing age sick leave frequency reduces (1;34;60-61); for women, a higher sick leave frequency is observed (1;3;28;62-64); married people show a lower sick leave frequency (3;47;65-66); the same applies for higher educated people (3-5). A relation was found between a high sick leave frequency and little balance between education and level of functioning (47;67). Finally, drinking (68-70) and smoking (71-73) are associated with higher sick leave frequency.

Figure 1 provides the results classified in accordance with the literature review.

For the direction of the influence of the mentioned sick leave frequency determinants on the basis of the literature review see Table 1.
FIGURE 1. Results of the literature review for sick leave frequency determinants (1984-2004)

<table>
<thead>
<tr>
<th>Results literature review 1984-2004</th>
<th>Determinants</th>
</tr>
</thead>
<tbody>
<tr>
<td>atmosphere at the workplace</td>
<td>appreciation for one’s work; expectations for the future; satisfied with one’s work; positive about social-medical support during sick leave; type of appointment</td>
</tr>
<tr>
<td>personal well-being</td>
<td>autonomy; workload (more work to do in the same amount of time); mental workload; match between work and level of education</td>
</tr>
<tr>
<td>individual factors</td>
<td>opinion about supervisors; managers are well informed about the workplace; good atmosphere at the workplace</td>
</tr>
<tr>
<td></td>
<td>pollution at the workplace; air climate/pollution</td>
</tr>
<tr>
<td></td>
<td>perceived physical workload; perceived mental workload</td>
</tr>
<tr>
<td></td>
<td>questions about perceived health; mental balance; burnout due to work; annual number visits (family doctor); frequently taking medicines</td>
</tr>
<tr>
<td></td>
<td>work-related factors; home-related factors</td>
</tr>
<tr>
<td></td>
<td>age; gender</td>
</tr>
<tr>
<td></td>
<td>marital status; satisfied with private circumstances; level of education</td>
</tr>
<tr>
<td></td>
<td>alcohol consumption; smoking</td>
</tr>
</tbody>
</table>
TABLE 1. Sick leave frequency determinants: the direction of the influence

<table>
<thead>
<tr>
<th>SICK LEAVE FREQUENCY DETERMINANTS</th>
<th>DIRECTION OF THE INFLUENCE¹</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WORKING CONDITIONS</strong></td>
<td></td>
</tr>
<tr>
<td>appreciation for one’s work</td>
<td>more appreciation &gt; lfsl</td>
</tr>
<tr>
<td>expectations for the future</td>
<td>better expectations &gt; lfsl</td>
</tr>
<tr>
<td>satisfied with one’s work</td>
<td>more satisfaction &gt; lfsl</td>
</tr>
<tr>
<td>positive about social-medical support during sick leave</td>
<td>indifferent²</td>
</tr>
<tr>
<td>type of appointment (permanent or temporary)</td>
<td>indifferent</td>
</tr>
<tr>
<td><strong>WORK CONTENTS</strong></td>
<td></td>
</tr>
<tr>
<td>autonomy</td>
<td>more autonomy &gt; lfsl</td>
</tr>
<tr>
<td>workload (more work in the same amount of time)</td>
<td>more work in the same amount of time &gt; hfsl</td>
</tr>
<tr>
<td>mental workload</td>
<td>heavier mental workload &gt; hfsl</td>
</tr>
<tr>
<td>match between work and level of education</td>
<td>better match &gt; lfsl</td>
</tr>
<tr>
<td><strong>WORKING RELATIONS</strong></td>
<td></td>
</tr>
<tr>
<td>opinion about supervisors</td>
<td>more positive opinion &gt; lfsl</td>
</tr>
<tr>
<td>managers are well informed about the workplace</td>
<td>better informed &gt; lfsl</td>
</tr>
<tr>
<td>good atmosphere at the workplace</td>
<td>better atmosphere &gt; lfsl</td>
</tr>
<tr>
<td><strong>WORKING CIRCUMSTANCES</strong></td>
<td></td>
</tr>
<tr>
<td>pollution at the workplace</td>
<td>more pollution &gt; hfsl</td>
</tr>
<tr>
<td>air climate / pollution</td>
<td>bad air climate / more pollution &gt; hfsl</td>
</tr>
<tr>
<td><strong>HEALTH STATUS (perceived workload):</strong></td>
<td></td>
</tr>
<tr>
<td>perceived physical workload</td>
<td>perception of heavier physical workload &gt; hfsl</td>
</tr>
<tr>
<td>perceived mental workload</td>
<td>perception of heavier mental workload &gt; hfsl</td>
</tr>
<tr>
<td><strong>HEALTH STATUS (health complaints):</strong></td>
<td></td>
</tr>
<tr>
<td>questions about perceived health</td>
<td>perception of a poorer health &gt; hfsl</td>
</tr>
<tr>
<td>mental balance</td>
<td>the more out of balance &gt; hfsl</td>
</tr>
<tr>
<td>burnout due to work</td>
<td>the more severe burnout &gt; hfsl</td>
</tr>
<tr>
<td>annual number of visits (family doctor)</td>
<td>higher number of visits &gt; hfsl</td>
</tr>
<tr>
<td>frequently taking medicines</td>
<td>more frequently taking medicines &gt; hfsl</td>
</tr>
<tr>
<td><strong>MOTIVATION</strong></td>
<td></td>
</tr>
<tr>
<td>work-related factors (working with pleasure)</td>
<td>working with more pleasure &gt; lfsl</td>
</tr>
<tr>
<td>home-related factors (more or less motivated)</td>
<td>more motivated for work &gt; lfsl</td>
</tr>
<tr>
<td><strong>INDIVIDUAL CHARACTERISTICS AND CIRCUMSTANCES</strong></td>
<td></td>
</tr>
<tr>
<td>age</td>
<td>older &gt; lfsl</td>
</tr>
<tr>
<td>gender</td>
<td>female &gt; hfsl</td>
</tr>
<tr>
<td>marital status</td>
<td>married &gt; lfsl</td>
</tr>
<tr>
<td>satisfied with private circumstances</td>
<td>more satisfied &gt; lfsl</td>
</tr>
<tr>
<td>level of education (high or low)</td>
<td>higher level of education &gt; lfsl</td>
</tr>
<tr>
<td>alcohol consumption</td>
<td>drinking more &gt; hfsl</td>
</tr>
<tr>
<td>smoking</td>
<td>smoking more &gt; hfsl</td>
</tr>
</tbody>
</table>

¹ Direction of the influence based on the literature review: the assumed effect on the frequency of sick leave (lfsl = lower frequency of sick leave; hfsl = higher frequency of sick leave).

² Indifferent: literature is scarce or ambiguous.
Discussion and conclusion

A literature review on sick leave frequency determinants during the past decades was performed. The aim was to find sick leave frequency related determinants and not to evaluate the size of the effect of those determinants. As for future studies, it would be useful that the relative effect of determinants is also taken into consideration.

After reviewing the literature we concluded that, during the last decades, a broad spectrum of determinants of sick leave frequency was mentioned in a highly consistent pattern. This conclusion was based on the finding that studies on sick leave frequency during the years 1984-2004 apparently focused on similar determinants.

References

3. Smulders P. Balans van 30 jaar ziekteverzuimonderzoek; de resultaten van 318 studies samengevat [Balance of 30 years sickness absence research; the results of 318 summarized studies]. Leiden, 1984: NIPG/TNO.


