Efficacy of an indicated prevention strategy for long-term sickness absence from an economic, health and stakeholders' perspective

Impact

Long-term sickness absence (LTSA), which is defined as a period of 28 or more consecutive days of sickness absence (SA), often results in a large economic burden on the individual employee, employer, and the healthcare system, and comes with high societal costs overall [1-5]. The cost of continued payment of wages due to SA are estimated at 13.3 billion a year in the Netherlands [6]. Less than 10 percent of employees on sick leave are absent for more than 3 months in the Netherlands, however this group is responsible for 59% of all days of absence [6]. Especially employees who are absent for more than six months (4% of the employees) are responsible for 37% of all days of absence [6]. Studies have shown, that LTSA has large consequences for the affected employees since it adversely affects well-being, mental and physical health and can lead to permanent work disability and early retirement due to ill health [2, 7-9].

The longer the duration of SA, the less likely it becomes that the employee will return to work [10]. Preventing LTSA might thus prove an important approach in addressing the issue. However, this might be challenging, given its multifactorial aetiology, resulting in a broad array of interrelated causal factors [11, 12]. Since the origin of LTSA is often multifactorial, an indicated prevention strategy (IPS) might be very effective, as it is focused on a broad array of factors in contrast to preventive strategies based on the principles of general (primary) or selective prevention [11-14]. An IPS is focused on individuals within a population who are at high risk to achieve a specified negative outcome. Identifying these high-risk individuals requires a screening instrument, such as a screening questionnaire. Subsequently, these identified high-risk individuals are offered a preventive intervention [15].

This thesis is focused on an IPS that reduces the risk of future LTSA. The efficacy and impact over one year was already proven in two randomized controlled trials [14, 16]. In this thesis, the long-term impact of the IPS (5-years) on sick leave as well as the impact of the IPS on the domains of health, wellbeing and healthcare usage were further investigated. Furthermore, the impact of the IPS was evaluated for different subgroups of diagnostic labels and attributes of SA spells as a proxy for the ill health of the employees at the time of the intervention. Moreover, a cost effectiveness analysis was performed as seen from the perspectives of the most relevant stakeholders.

From a valorization perspective, especially the long-term effects on SA, the cost effectiveness and participation with this IPS are important. Therefore, in this chapter, the knowledge gained from the studies, as described in this thesis, will be discussed in the light of the willingness of the workers to participate and the readiness of employers to implement this strategy. The long term effects and cost effectiveness of the strategy have already been covered in other chapters of this thesis.

Impact on uptake and compliance

The effects of the study results from this thesis on multiple stakeholders have been discussed in various chapters of this thesis. However, since the screening uptake and compliance are two key elements of the (cost) effectiveness of the strategy, it is important to investigate if the new study results have changed the perception from the stakeholders regarding the usefulness of the strategy. A more positive view could potentially have a significant impact on the screening uptake and compliance of the strategy.

The uptake and compliance of the IPS is partly determined by the expected benefits from the strategy, which may be different for the different stakeholders. Employees may experience improvements related to health/well-being and possibly a reduction in SA/healthcare costs later in time. Less SA cost, as a result of fewer days of SA will only affect employees after two years' time due to the social safety net of the Dutch policy. In the Netherlands, the employer bears the financial costs for sick employees and will pay their wages up until two years' time. After that period, the WIA (Work and Income according to Labour Capacity Act) will take over the wage payment, which reduces the payment to the employee. Therefore, the financial benefits of fewer days of SA will only be experienced by the employees after two years' time. However, for the employers the financial benefits from this IPS, as a result of fewer days of SA will be directly visible (e.g. less costs related to the wage payment for the employee on sick leave/replacement of the employee, occupational care etc.).

Furthermore, the employer decides if the IPS will be implemented in the company, however, the employees also decide for themselves if they are willing to fill in the screening questionnaire and are willing to comply with the preventive intervention. The willingness of the employees may also be determined by the information available regarding the strategy, the attitude of the employer, and the company culture (as explained in chapter 6). Therefore, the uptake and the compliance of this IPS is determined by many different factors, which should be taken into account when interpreting the possible effect of the new study results on the changed perception of the stakeholders regarding the usefulness of the strategy.

We contacted the employers, employees and occupational health professionals (OHP)/health insurer, who were invited in the past for an interview regarding the IPS to answer similar questions with the use of an online survey. This approach enabled a proper assessment of the possible change in the perception of the IPS from the stakeholders given the new study results.

The questionnaire was send to 9 OHP/health insurers, 23 employers and 9 employees. The questionnaire entailed questions related to the changed perceptions of the IPS in terms of the long-term efficacy related to SA and LTSA, health and well-being, healthcare usage and the economic evaluation. Followed by a question which captured the overall willingness

to participate or implement this IPS, taking into account the new study results.
In total 41 questionnaires were send to the above mentioned stakeholders. This resulted in an overall response rate of 22%, this was lower than expected, possibly due to the long time period (3 years) between the interview and the questionnaire. Some stakeholders had changed companies or were on pregnancy leave, which made them difficult to reach and less prone to return the questionnaire.
The new results of the IPS regarding the decrease in days of SA (chapter 4), were assessed by all respondents as reasonable to highly important for the positive change regarding their believe in the usefulness of the strategy. Moreover, the decrease in LTSA contributed similarly for all respondents in a positive change regarding their believe in the usefulness of the strategy. The results of the IPS regarding health and well-being (chapter 2) gave a more divergent answering pattern, from not useful at all to highly useful. With the highest percentage (44.4%) of the respondents answering that the new information made a reasonable contribution to the expected usefulness of the strategy. These findings were comparable with the small effect sizes we found as explained in chapter 2. Similarly, for the results regarding healthcare usage the respondents answered divergent, here the largest number of respondents answering that it made a reasonable contribution to their perceived usefulness of the strategy (42.9%). Furthermore, all employers and OHP/health insurers answered that the results regarding the economic evaluation were reasonable to highly important for a positive change in their perceived usefulness of the strategy.
Lastly, the respondents were asked overall, when taking into account the new IPS study results, if they would be more inclined to implement/participate with the IPS or saw more possibilities in daily practice. Most of the respondents (77.7%) believed the new information regarding the IPS was considerable to highly important for future implementation/participation. Furthermore, only two respondents mentioned possible implementation barriers which were related to the lack of a good translation with their own company data and the lack of direct feedback from the screening questionnaire to decrease the time to the occupational healthcare service.
To summarize, given the new IPS results respecting SA, LTSA and the economic evaluation, the respondents were positive on the effects regarding the usefulness of the strategy. Although some caution is needed interpreting the results, given the rather low response rates. Overall, this may indicate that the new results may lead to an increase in uptake and compliance with the IPS and improve future implementation.
Improving the screening uptake and compliance is highly relevant given the relatively high costs of SA [6] on the one hand, and the screening costs on the other. Improving the screening uptake will hardly effect the costs for screening but is expected to result in less costs related to SA, which could give rise to an higher cost effectiveness. Given the current rather low implementation rate, the results as described in this thesis can

help to increase the willingness of the workers to participate and increase the readiness of employers to implement this strategy. This expected positive change in uptake and compliance may improve the impact of the IPS on the employee, employer and society in terms of costs, participation and well-being.

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