

PEER REVIEW HISTORY

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This paper was submitted to the JECH but declined for publication following peer review. The authors addressed the reviewers' comments and submitted the revised paper to BMJ Open. The paper was subsequently accepted for publication at BMJ Open.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Work Outcomes of Sickness Absence Related to Mental Disorders: A Systematic Literature Review
AUTHORS	Dewa, Carolyn; Loong, Desmond; Bonato, Sarah

VERSION 1 - REVIEW

REVIEWER	Sogaard, Hans Jorgen Psychiatric Research Unit West Regional Psychiatric Services Central Denamrk Region Gl. Landevej 49, 1 7400 Herning Denmark
REVIEW RETURNED	11-May-2014

GENERAL COMMENTS	<p>The study comprises a literature review with regard to the significance of accounting for sickness absence days and recurrence of sickness absence for individuals with mental disorders. The literature review is carried out according to good scientific standard. However, the aim of the study is poorly described. It talks about identifying aspects of sickness absence that contributes to workplace burdens. The results show that the mean number of sickness absence days is higher for mental disorders than for other disorders as well as recurrences occur earlier for mental disorders than for other disorders. This is well-known, so the study doesn't bring much new information. It concludes, that in addition to reporting the frequency of return to work, the length of sickness absence and recurrences should be taken into account when analysing the burden of mental disorders. However, this is common sense. The description of the aim gives the impression that more aspects of the complex sickness absence process will be clarified which is not the case. Several of the suggestions for further research and intervention seem to be based on the general discussion in the field and not suggestions that could be based on the results of the preset study.</p> <p>With regard to more specific points, the review identified 10 studies. However, more studies are based on the same population. In reality 6 populations are studied. Three populations are studied in more papers with different outcomes.</p> <p>The first sentence says that is anxiety around the world. Anxiety is a</p>
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	<p>dramatic word, and in the context concern would be more appropriate.</p> <p>In conclusion the study doesn't bring much new information to the scientific world, nor to the clinical world.</p>
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REVIEWER	Roelen, Corné Dept Health Sciences, University Medical Center Groningen, University of Groningen, The Netherlands
REVIEW RETURNED	16-May-2014

GENERAL COMMENTS	<p>The authors conducted a systematic review of the literature to examine the current state of knowledge regarding the characteristics of sickness absences related to mental disorders. Although important, particularly from an employer's perspective, the review seems to miss a specific research question. Why did the authors gather this information from the literature? Just to get insight into de duration and recurrence rates of mental sickness absence? Or did the authors have more specific objectives?</p> <p>The review provides an overview of sickness absence lengths as well as recurrences, with interesting cross-national comparisons. It is a well-written study and no language editing is required. However, the reference list needs further editing because it is not consistent. Sometimes journal names are abbreviated and sometimes (e.g., refs 1, 6, 8, 10-16, 18-20, 23, and 25) full journal names are presented. Please edit the reference list according to the BMJ Open guidelines.</p> <p>As there is no specific research question, the conclusion is somewhat disappointing. If production loss due to sickness absence is seen as a burden for employers, then obviously the length as well as recurrence of sickness absences contribute to that burden. We do not need a systematic review of the literature to come to that conclusion. The authors have some measures of sickness absence from different studies in different parts of the world. The review would become more informative if the authors attempt to estimate the costs of mental sickness absences in financial terms (i.e., in dollars or euros) based on the length and recurrence rates of mental sickness absence in the different countries.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer: Hans Joergen Soegaard

However, the aim of the study is poorly described. It talks about identifying aspects of sickness absence that contributes to workplace burdens.

The introduction was revised and the purpose clarified with:

One approach to addressing the costs of sickness absence related to mental disorders could be to decrease the impact of both the number of episodes and their lengths. This suggests that interest should extend beyond merely whether or not a worker returns-to-work. Rather, it is also important to understand the length and the frequency of sickness absence related to mental disorders. Few studies have examined the current state of knowledge about sickness absence outcomes from the employer perspective. To fill this gap, we conducted a systematic literature review to examine the sickness absence outcomes reported in the literature. These outcomes could help to identify the aspects of sickness absences that contribute to employer economic burdens.

Purpose of the Paper

The purpose of this paper is to examine the current state of knowledge regarding the return-to-work (RTW) outcomes of sickness absences related to mental disorders that increase workplace burdens from the perspective of the employer. The question that we addressed in this systematic review was, “Based on the existing literature, from the employer’s perspective, what are the relevant economic return-to-work outcomes for sickness absences related to mental disorders?” Answers to this question can highlight the aspects of sickness absences related to mental disorders that could escalate the costs that employers face. Results of this review can point to areas that sickness absence interventions could target. They can also suggest dimensions along which future intervention effectiveness could be evaluated.

A secondary question we asked was, “From the employer’s economic perspective, are there gaps in knowledge about the relevant return-to-work outcomes for sickness absences related to mental disorders?” In answering this question, this review takes a first step in understanding where the knowledge in this area is and is not being produced. It also suggests areas where additional study is needed to more accurately estimate the costs of sickness absences borne by employers.

The results show that the mean number of sickness absence days is higher for mental disorders than for other disorders as well as recurrences occur earlier for mental disorders than for other disorders. This is well-known, so the study doesn’t bring much new information.

It concludes, that in addition to reporting the frequency of return to work, the length of sickness absence and recurrences should be taken into account when analysing the burden of mental disorders. However, this is common sense.

It may be obvious. However, none of the burden of illness studies have taken into account the costs of recurrences. In addition, there have been few interventions developed to address sickness absence recurrence. Most of the existing work has taken place in the Netherlands. This suggests that perhaps, it is not as well known in the rest of the world. Text was added to bring up this point:

These results also suggest that although most workers return to work, they also may be at higher risk of a repeat sickness absence episode. Indeed, the literature suggests that mental disorders such as depression are chronic in nature and have a high recurrence rate.¹⁹⁻²¹ However, does symptom relapse automatically necessitate an accompanying sickness absence? Given that work disability is not solely a medical problem, there have been suggestions that the prognosis need not be fatalistic;

sickness absence is not always required. For example, workplace accommodations could help workers experiencing an episode of mental illness continue to work during an episode.^{22 23} In addition, there is an emerging literature looking at the effectiveness of interventions in decreasing sickness absence recurrence for mental disorders.^{24 25} That is, although there have been arguments for treating mental disorders as chronic illnesses, there have been few intervention studies that have focused on decreasing sickness absence recurrence for mental disorders.

This also points to one of the gaps in the literature. Few studies have estimated the components of the cost of work reintegration and accommodation for workers with mental disorders. None of the studies identified in this review examined the time it took for a worker to completely reintegrate back into work. For example, how long is the work accommodation period? Furthermore, how is productivity affected during the reintegration period? There is evidence suggesting that there may be costs to the employer related to the process of reintegrating a worker who has been absent because of a sickness episode.^{22 26 27} There also is evidence to suggest that employers and workers have identified work sustainability without recurrence as an important work outcome.²⁸ Given that work sustainability without recurrence seems to be a preference of both workers and employees and there are potential costs related to reintegration and accommodation, it may be important to consider the number of episodes (i.e., recurrence rates) as well as total number of absence days alone. Few burden of illness studies for mental disorders have included the costs of recurrent sickness absence in the estimates. But, recurrent sickness absence episodes seem to be a cost that warrants consideration for inclusion in cost estimates as well as for intervention outcomes.

In addition, five of the 10 studies identified are from one country (the Netherlands) and two population groups within that country. At the same time, the databases that were used represented between 10,000 and 100,000 claims. Thus, the findings that emerge from these databases build a compelling case that the length of sickness absence and its recurrence is a burden on employers. However, the fact that the majority of the evidence is being generated by one country raises interesting questions. Is the reason that the Netherlands and Northern Europe are the sources of most of the intervention studies for sickness absences related to mental disorders because they have compelling data to make the case about the costs to employers? Are the results from the Netherlands generalizable to other countries?

In addition to the Dutch studies, there were five other studies identified. However, these studies actually represented a total of four population groups. Three of the datasets each represented about 5,000 claims from single organizations (the studies from the UK, Canada and one Brazilian study). The exception was the one Brazilian study that represented 140,000 claims (all workers in registered private sector jobs). This suggests that there is an opportunity for the evidence base to grow in these countries. It also begs the question, "What is known about the sickness absence burden in other countries that were not represented in this search (i.e., the US, the missing EU countries and Asia)?" Does the absence of studies from other countries indicate that it is not a concern in the other countries? Or, is it an indication that awareness is yet to be raised?

The description of the aim gives the impression that more aspects of the complex sickness absence process will be clarified which is not the case. Several of the suggestions for further research and intervention seem to be based on the general discussion in the field and not suggestions that could be based on the results of the preset study.

The introduction was revised and the purpose clarified with:

One approach to addressing the costs of sickness absence related to mental disorders could be to decrease the impact of both the number of episodes and their lengths. This suggests that interest should extend beyond merely whether or not a worker returns-to-work. Rather, it is also important to

understand the length and the frequency of sickness absence related to mental disorders. Few studies have examined the current state of knowledge about sickness absence outcomes from the employer perspective. To fill this gap, we conducted a systematic literature review to examine the sickness absence outcomes reported in the literature. These outcomes could help to identify the aspects of sickness absences that contribute to employer economic burdens.

Purpose of the Paper

The purpose of this paper is to examine the current state of knowledge regarding the return-to-work (RTW) outcomes of sickness absences related to mental disorders that increase workplace burdens from the perspective of the employer. The question that we addressed in this systematic review was, “Based on the existing literature, from the employer’s perspective, what are the relevant economic return-to-work outcomes for sickness absences related to mental disorders?” Answers to this question can highlight the aspects of sickness absences related to mental disorders that could escalate the costs that employers face. Results of this review can point to areas that sickness absence interventions could target. They can also suggest dimensions along which future intervention effectiveness could be evaluated.

A secondary question we asked was, “From the employer’s economic perspective, are there gaps in knowledge about the relevant return-to-work outcomes for sickness absences related to mental disorders?” In answering this question, this review takes a first step in understanding where the knowledge in this area is and is not being produced. It also suggests areas where additional study is needed to more accurately estimate the costs of sickness absences borne by employers.

With regard to more specific points, the review identified 10 studies. However, more studies are based on the same population. In reality 6 populations are studied. Three populations are studied in more papers with different outcomes.

To address this point, the text was added:

In addition, five of the 10 studies identified are from one country (the Netherlands) and two population groups within that country. At the same time, the databases that were used represented between 10,000 and 100,000 claims. Thus, the findings that emerge from these databases build a compelling case that the length of sickness absence and its recurrence is a burden on employers. However, the fact that the majority of the evidence is being generated by one country raises interesting questions. Is the reason that the Netherlands and Northern Europe are the sources of most of the intervention studies for sickness absences related to mental disorders because they have compelling data to make the case about the costs to employers? Are the results from the Netherlands generalizable to other countries?

In addition to the Dutch studies, there were five other studies identified. However, these studies actually represented a total of four population groups. Three of the datasets each represented about 5,000 claims from single organizations (the studies from the UK, Canada and one Brazilian study). The exception was the one Brazilian study that represented 140,000 claims (all workers in registered private sector jobs). This suggests that there is an opportunity for the evidence base to grow in these countries. It also begs the question, “What is known about the sickness absence burden in other countries that were not represented in this search (i.e., the US, the missing EU countries and Asia)?” Does the absence of studies from other countries indicate that it is not a concern in the other countries? Or, is it an indication that awareness is yet to be raised?

The first sentence says that is anxiety around the world. Anxiety is a dramatic word, and in the context concern would be more appropriate.

The wording has been changed.

In conclusion the study doesn't bring much new information to the scientific world, nor to the clinical world.

Given that there are few published interventions focused on reduced recidivism and most of these are from the Netherlands, it may be that the rest of the world is not as aware of the problem as clinicians in either Northern Europe or the Netherlands.

The Conclusion was revised to read:

This systematic literature review identified only 10 studies published in the last decade. The results of these existing studies suggest that along with the incidence of sickness absence related to mental disorders, the length and recurrence (i.e., frequency of recurrence and time between recurrence) of these sickness absences should be areas of concern.

This systematic review also highlights gaps in the literature. For instance, five of the existing studies are from the Netherlands. That is, most of the literature in this area is based on the Netherlands' experience. This suggests that in other parts of the world, this area of research is in its infancy. It will be important for research in other countries to look at the length and recurrence (i.e., frequency of recurrence and time between recurrence) of sickness absences. This basic knowledge will help with understanding to what extent it should be a concern for employers in other countries. In turn, it could also help to build the business case for increased resources toward the development of more sickness absence interventions in these other countries.

The results of this review also indicate that we are in the early stages of understanding the aspects of sickness absences that contribute to employer burden and along the same vein, areas to target to effectively decrease costs. For example, more research is needed regarding the costs of recurrence including the cost of reintegration and time to full reintegration. This suggests that current cost estimates may underestimate the costs of sickness absences from the employer's perspective. To effectively build the business case for employers to invest in interventions that target sickness absences related to mental disorders, it will be important to develop a more comprehensive picture of the costs associated with sickness absence that employers directly bear. Only in this way can economic evaluations and economic models accurately estimate the types of cost-savings that employers can expect with an intervention.

Reviewer: Roelen

Although important, particularly from an employer's perspective, the review seems to miss a specific research question. Why did the authors gather this information from the literature? Just to get insight into the duration and recurrence rates of mental sickness absence? Or did the authors have more specific objectives?

The introduction was revised and the purpose clarified with:

One approach to addressing the costs of sickness absence related to mental disorders could be to decrease the impact of both the number of episodes and their lengths. This suggests that interest should extend beyond merely whether or not a worker returns-to-work. Rather, it is also important to understand the length and the frequency of sickness absence related to mental disorders. Few studies have examined the current state of knowledge about sickness absence outcomes from the employer perspective. To fill this gap, we conducted a systematic literature review to examine the

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The review provides an overview of sickness absence lengths as well as recurrences, with interesting cross-national comparisons. It is a well-written study and no language editing is required. However, the reference list needs further editing because it is not consistent. Sometimes journal names are abbreviated and sometimes (e.g., refs 1, 6, 8, 10-16, 18-20, 23, and 25) full journal names are presented. Please edit the reference list according to the BMJ Open guidelines.

Thank you for pointing this out. The errors have been corrected.

As there is no specific research question, the conclusion is somewhat disappointing. If production loss due to sickness absence is seen as a burden for employers, then obviously the length as well as recurrence of sickness absences contribute to that burden. We do not need a systematic review of the literature to come to that conclusion. The authors have some measures of sickness absence from different studies in different parts of the world. The review would become more informative if the authors attempt to estimate the costs of mental sickness absences in financial terms (i.e., in dollars or euros) based on the length and recurrence rates of mental sickness absence in the different countries.

Although it is obvious that recurrence contributes to burden, it may be less obvious that there have been few studies looking at this. In addition, most of the existing studies have come from the Netherlands. However, it is not clear that these findings are generalizable to the rest of the world.

The Conclusion was revised to read:

This systematic literature review identified only 10 studies published in the last decade. The results of these existing studies suggest that along with the incidence of sickness absence related to mental disorders, the length and recurrence (i.e., frequency of recurrence and time between recurrence) of these sickness absences should be areas of concern.

This systematic review also highlights gaps in the literature. For instance, five of the existing studies are from the Netherlands. That is, most of the literature in this area is based on the Netherlands’ experience. This suggests that in other parts of the world, this area of research is in its infancy. It will be important for research in other countries to look at the length and recurrence (i.e., frequency of

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The results of this review also indicate that we are in the early stages of understanding the aspects of sickness absences that contribute to employer burden and along the same vein, areas to target to effectively decrease costs. For example, more research is needed regarding the costs of recurrence including the cost of reintegration and time to full reintegration. This suggests that current cost estimates may underestimate the costs of sickness absences from the employer's perspective. To effectively build the business case for employers to invest in interventions that target sickness absences related to mental disorders, it will be important to develop a more comprehensive picture of the costs associated with sickness absence that employers directly bear. Only in this way can economic evaluations and economic models accurately estimate the types of cost-savings that employers can expect with an intervention.

VERSION 2 – REVIEW

REVIEWER	Hans Joergen Soegaard Psychiatric Research Unit West, Regional Psychiatric Services West, Aarhus University, Gl. Landevej 49,1, 7400 Herning, Denmark
REVIEW RETURNED	19-Jun-2014

GENERAL COMMENTS	The paper has improved substantially. In the first edition it seemed that the authors would prove that the length of sickness absence and recurrences of sickness absence was of importance with regard to the burden of mental disorders. This seemed self evident. However, the elaboration of the aim: to demonstrate the gap in knowledge, the aim now is relevant. Consequently, the discussion also is coherent with the aim. What has to be considered when preventing recurrence of a sickness absence due to mental disorders.
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REVIEWER	Corné Roelen University Medical Center Groningen The Netherlands
REVIEW RETURNED	20-Jun-2014

GENERAL COMMENTS	The authors have satisfactorily addressed my previous comments
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