

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Effectiveness of introduction of new legislation of partial sickness benefit on work participation: A quasi-experiment in Finland
AUTHORS	Kausto, Johanna; Viikari-Juntura, Eira; Virta, Lauri; Gould, Raija; Koskinen, Aki; Solovieva, Svetlana

VERSION 1 - REVIEW

REVIEWER	Jenny Head Professor in Medical and Social Statistics, Department of Epidemiology and Public Health, UCL (University College London), United Kingdom
REVIEW RETURNED	20-Oct-2014

GENERAL COMMENTS	<p>This is an excellent study using a natural experiment design and register data to evaluate the effect of new legislation on partial sickness benefit in Finland. The study is well designed, the methods are clearly described and the paper is clearly written. The findings have important policy implications and suggest that introduction of partial sick leave may help reduce loss of workers from the labour market for health reasons.</p> <p>I have a few comments and suggestions for the authors to consider:</p> <p>ABSTRACT The abstract is well-written. If possible within the word limit, it might be good to list the covariates included in the propensity score matching. For example, propensity score matching on age, sex, income, occupation, diagnosis and insurance district.</p> <p>METHODS The methods are clearly described. However, I was not quite clear about the wash-out period as the text mentions one year and the Figure mentions periods (one year x 2). If I understand this correctly, I think that the sick leave period could be variable and that there were two wash out periods – both one year before the sick leave AND one year after the sick leave period. I suggest this is clarified in the text and figure. Also, it might be helpful to add some summary statistics on the length of sick leave period in the two groups. I think that this is at least 60 days for each group?</p> <p>RESULTS A minor point but it would be helpful to report the DID for mental disorders in the text.</p>
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REVIEWER	Nils Fleten UiT The Arctic University of Norway Department of Community Medicine
REVIEW RETURNED	23-Oct-2014

GENERAL COMMENTS	<p>The objective of this study was to examine the effect of new legislation on partial sickness benefits on subsequent work participation of Finns with long term sickness absence. But what is studied is association between partial or full sickness absences and work participation. This is done in a well described and adequate way, and the conclusion in the abstract are in line with this. Accordingly the study will add knowledge in the field of part-time sickness absence, but does not give the answer whether part-time sickness absence in itself contributes to improved work participation, effect, or merely identifies individuals with a better prognosis for work participation.</p> <p>Partial sickness absence in Finland is described as voluntary for both employee and employer. Motivational factors on work adherence of both parts can therefore influence selection to partial sickness absence and the positive association. And might conjunctures influence?</p> <p>Information on general trend in sickness absence and unemployment in the study period in Finland, and a more thoroughly discussion on alternative explanation of the observed association would strengthen the study. It is unclear if the study has looked into any differences if the reason for nonparticipation at T2 was related to sickness or unemployment.</p> <p>My suggestion for major revisions</p> <p>In the introduction adding a short information on trends in sickness related absence and unemployment in the study period.</p> <p>Reconsider the objective; was it to study effect of the new legislation rather than to study association between partial sickness absence entitled by the new legislation and work participation, in line with the presented results.</p> <p>A more thoroughly discussion on alternative explanation of the observed association related to the assignment to partial sick leave p 15, line 41-50</p> <p>In conclusion p 17 line 39 consider the use of positive association rather than positive effect.</p> <p>Minor revisions P 11, line 10-13: Consider a rephrasing of the sentence "The model that balanced ..."</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer Name Jenny Head

Institution and Country Professor in Medical and Social Statistics,
Department of Epidemiology and Public Health, UCL (University College London), United Kingdom
Please state any competing interests or state 'None declared': None declared

This is an excellent study using a natural experiment design and register data to evaluate the effect of new legislation on partial sickness benefit in Finland. The study is well designed, the methods are clearly described and the paper is clearly written. The findings have important policy implications and suggest that introduction of partial sick leave may help reduce loss of workers from the labour market for health reasons.

I have a few comments and suggestions for the authors to consider:

ABSTRACT

The abstract is well-written. If possible within the word limit, it might be good to list the covariates included in the propensity score matching. For example, propensity score matching on age, sex, income, occupation, diagnosis and insurance district.

Response: Thank you for your positive remarks. We have included a list of the covariates in the abstract as suggested (p 2, line 23-25). In order to keep the word limit, we abbreviated the first sentence of the Objective.

METHODS

The methods are clearly described. However, I was not quite clear about the wash-out period as the text mentions one year and the Figure mentions periods (one year x 2). If I understand this correctly, I think that the sick leave period could be variable and that there were two wash out periods – both one year before the sick leave AND one year after the sick leave period. I suggest this is clarified in the text and figure.

Response: It is correct that there are two wash out periods as the reviewer pointed out. We have modified the text in order to make it more clear to the reader (p. 7, line 141-142).

Also, it might be helpful to add some summary statistics on the length of sick leave period in the two groups. I think that this is at least 60 days for each group?

Response: The partial sick leave period (ending in 2008) had to be preceded immediately by a period of full sickness benefit of at least 60 days. For the comparability of the sick leave groups, we included in the comparison group those participants whose full sick leave ended with an uninterrupted period of at least 60 days of payment of the benefit. So, the length of the sickness absence in the comparison group was at least 60 days. Because of the study design it is not possible to define length of sickness absence for the full sick leave group immediately preceding the intervention.

At T1, the mean for the number of full sickness absence days (in the total sample) was 17 in the partial sick leave group and 19 in the full sick leave group.

RESULTS

A minor point but it would be helpful to report the DID for mental disorders in the text.

Response: The lacking percentage with a 95% CI has been added to the text as recommended (p. 11, line 277).

Reviewer Name Nils Fleten

Institution and Country UiT The Arctic University of Norway

Department of Community Medicine

Please state any competing interests or state 'None declared': None declared

The objective of this study was to examine the effect of new legislation on partial sickness benefits on subsequent work participation of Finns with long term sickness absence. But what is studied is association between partial or full sickness absences and work participation. This is done in a well described and adequate way, and the conclusion in the abstract are in line with this. Accordingly the study will add knowledge in the field of part-time sickness absence, but does not give the answer whether part-time sickness absence in itself contributes to improved work participation, effect, or merely identifies individuals with a better prognosis for work participation.

Partial sickness absence in Finland is described as voluntary for both employee and employer.

Motivational factors on work adherence of both parts can therefore influence selection to partial sickness absence and the positive association. And might conjunctures influence?

Information on general trend in sickness absence and unemployment in the study period in Finland, and a more thoroughly discussion on alternative explanation of the observed association would strengthen the study. It is unclear if the study has looked into any differences if the reason for nonparticipation at T2 was related to sickness or unemployment.

My suggestion for major revisions

In the introduction adding a short information on trends in sickness related absence and unemployment in the study period.

Response: Thank you for your perceptive comments. We decided to add a short remark on the trends of sickness absence and unemployment in Finland during the time of the study to the Discussion part of the manuscript (p.14 line 353-356).

Reconsider the objective; was it to study effect of the new legislation rather than to study association between partial sickness absence entitled by the new legislation and work participation, in line with the presented results.

Response: The objective of the study was indeed to investigate the effectiveness of a population level intervention- i.e. amendment of the sickness insurance law in Finland- on work participation. The amendment of the law in question enabled the use of the new benefit among those with long-term sickness absence. The wording has been corrected accordingly (p. 6, line 122-123).

A more thoroughly discussion on alternative explanation of the observed association related to the assignment to partial sick leave p 15, line 41-50.

Response: As remarked on p. 14, line 366-367, the process of assignment is not random, but it is complex and it is affected by many factors related to the patient, physician, employer and the workplace. I.e. there is both “purposive placement” and self-selection into the treatment. Many of these factors are not known and /or national level data on these factors is not available. For this reason we applied both matching on propensity score and a difference-in-differences analysis. The propensity score matching method can control for selection based on observed factors. The difference-in-differences analysis can control for time invariant unobserved selection.

In conclusion p 17 line 39 consider the use of positive association rather than positive effect.

Response: In this study, we applied the chosen study design and methods to be able to study the impact or effectiveness of the intervention on the outcome. Impact evaluations are based on models of cause and effect and thus, with certain limitations, we would rather talk about effects than associations in this study.

Minor revisions

P 11, line 10-13: Consider a rephrasing of the sentence “The model that balanced ... “

Response: The sentence in question was rephrased as suggested (p. 10, 232).