Author's response to reviews

**Title:** Substance Abuse and Psychiatric Co-morbidity as Predictors of Premature Mortality in Swedish Drug Abusers: A Prospective Longitudinal Study 1970 - 2006

**Authors:**

Anna Nyhlén (anna.nyhlen@skane.se)
Mats Fridell (mats.fridell@psychology.lu.se)
Martin Bäckström (martin.backstrom@psychology.lu.se)
Morten Hesse (mh@crf.au.dk)
Peter Krantz (rmlu@rmv.se)

**Version:** 6  **Date:** 26 June 2011

**Author's response to reviews:**

MS: 1319869118455803
Substance Abuse and Psychiatric Co-morbidity as Predictors of Premature Mortality in Swedish Drug Abusers:
A Prospective Longitudinal Study 1970-2006
Anna Nyhlén, Mats Fridell, Martin Bäckström, Morten Hesse and Peter Krantz.
26 June 2011

Dear Angelina Ilievska

Thank you for your comments. We have answered the remaining questions from reviewer no 4 below.

The manuscript is not changed compared to the previous version. We have explained the reason for this in detail to professor Kufner. We think that the additional analysis of data on outcomes suggested by professor Kufner would include data where reliability is less secure than in other parts of the data set.

With best wishes,

Anna Nyhlén, MD, PhD Mats Fridell, Professor in clin psychology
Tel: +46 (46) 174995
e-mail: mats.fridell@psychology.lu.se

Reviewer's report

Title: Substance Abuse and Psychiatric Co-morbidity as Predictors of Premature Mortality in Swedish Drug Abusers: A Prospective Longitudinal Study 1970 to
Reviewer's report:

First, I would like to thank the authors for answering to my second review of the paper. I accept, of course, the restrictions of this approach. In spite of this, I am sorry to ask a new question regarding the possible influence of repeated admissions to the hospital during the observation period 1970-1978. In the answer about dropouts it was mentioned that 80% had two or more treatment episodes. I think it would be a good occasion to analyze this variable without much additional work. If there is a relationship, it would be clinically interesting, if not, which seems more probable, the information would be worthwhile as well.

Authors´response:

Dear professor Kufner;

We are very grateful for all Your work to review our article. You have given us several new ideas which we have not considered before.

We are aware of the limitations in our approach where a restricted range of variables at the first admission are available for predicting premature death. You stressed the lack of data on individual differences and social situational factors which might influence premature death. We are happy that you think we gave proper notion to this problem in our latest response.

We mentioned that one problem of using outcome at an early treatment admission is complicated by the fact that the same patient who drop out from one admission may complete the following treatment admissions. Your question is whether we could use outcome, like drop-out or completed treatment admission in an extended analysis. The data files for the early cohort 1970-1978 are registered for the individual patient. The number of treatment admissions at that time were grouped into broad categories (0, 1, 2-3, 4-6, 6-10 or 10 <). The lack of registration of the exact number of admissions and outcome and the lack of reliability would make conclusions very uncertain. This is the reason why we cannot use the number of admission as variable in the requested analysis.

However, we have this kind of data in a second cohort observed 1978-1995, with 1050 individuals treated at 3111 treatment admissions. In this cohort we used more modern diagnostics and the outcome of each treatment admission was assessed in a standardized manner with reliability checks. It would be possible to analyze if the numbers of treatment episodes predict premature death in this later cohort. We agree that any outcome of such an analysis would be of great interest.

In the first cohort personality disorder was not predictive of premature death. In the second cohort, this finding remains despite a higher treatment consumption among anti-social patients compared with patients with other personality
disorders. Might it be that treatment is a protective factor in some patients while being an indicator of more severe problems and less adaptability in other patients? We do not know at present.

I thank you for giving us the idea of investigating if and when outcome over several treatment admissions might be predictive for premature death and to analyze which could be mediating factors in the process.

With kind regards

Anna Nyhlén, Mats Fridell, Martin Bäckström, Morten Hesse, Peter Krantz