

# AGE OF ONSET OF MENTAL ILLNESS AND EMPLOYMENT OUTCOMES

Johanna Immonen, Erika Jääskeläinen, Tanja Nordström, Leena Ala-Mursula, Nina Rautio, Jouko Miettunen  
Center for Life Course Health Research, University of Oulu, Oulu, Finland

## OBJECTIVE

Mental illness is the leading cause of sick leaves and disability pensions in many developed nations. In Finland, 51% of disability pensions were caused by mental illness in 2017. We investigated how age of onset (AOO) of mental illness affects long-term employment outcomes in prospective general population based Northern Finland Birth Cohort 1966 (n=11234).

## METHODS

For people with schizophrenia (SZ, n=137), affective psychoses (AP, n=100), and non-psychotic affective disorders (NPAD, n=659) onset age was analyzed (quartiles for each diagnosis) from register data. A yearly employment rate for years 1979-2015 was calculated for the AOO groups for each diagnoses.

A total employment outcome was created by calculating a mean employment rate for the whole follow-up time (1983-2015). A Kruskal-Wallis test was performed to statistically test the total employment outcome between AOO groups. Cohort members without psychiatric diagnosis were the healthy peers.

## RESULTS

Figure 1 depicts the results for annual mean employment rate per diagnoses and AOO groups. In psychotic disorders, especially in schizophrenia, the employment rate is low compared to other diagnoses and peers. People with an earlier onset tend have poorer employment rates than the ones with a later onset in all diagnoses.

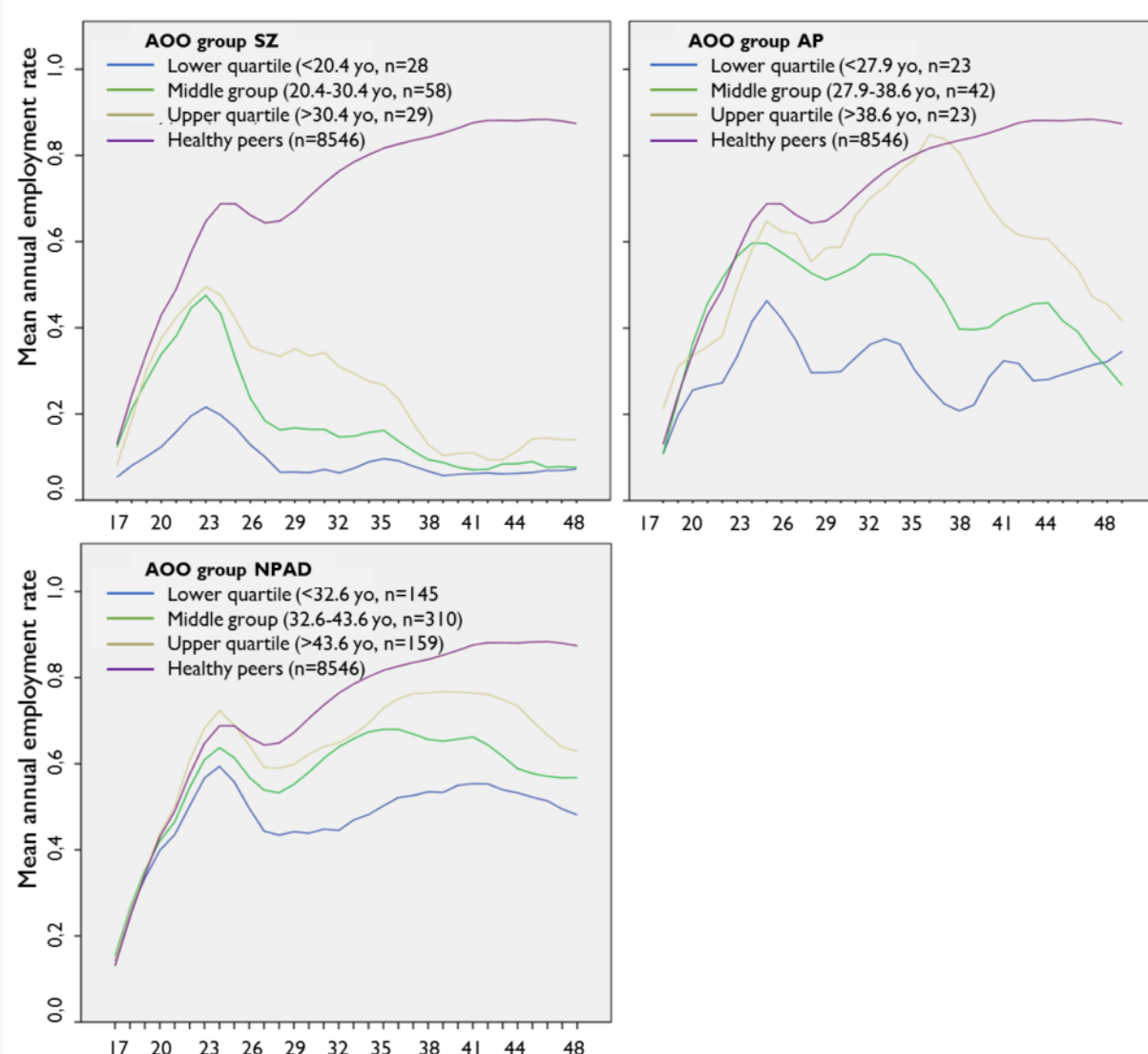


Fig. 1. line graph of mean annual employment rate per diagnosis and onset age groups for years 1983-2014, i.e. ages 17-48

Figure 2 shows the results for total employment rate per diagnoses and AOO groups. A Kruskal-Wallis test showed that there was a statistically significant difference of total mean employment between AOO groups in all diagnoses ( $p < 0.05$ ).

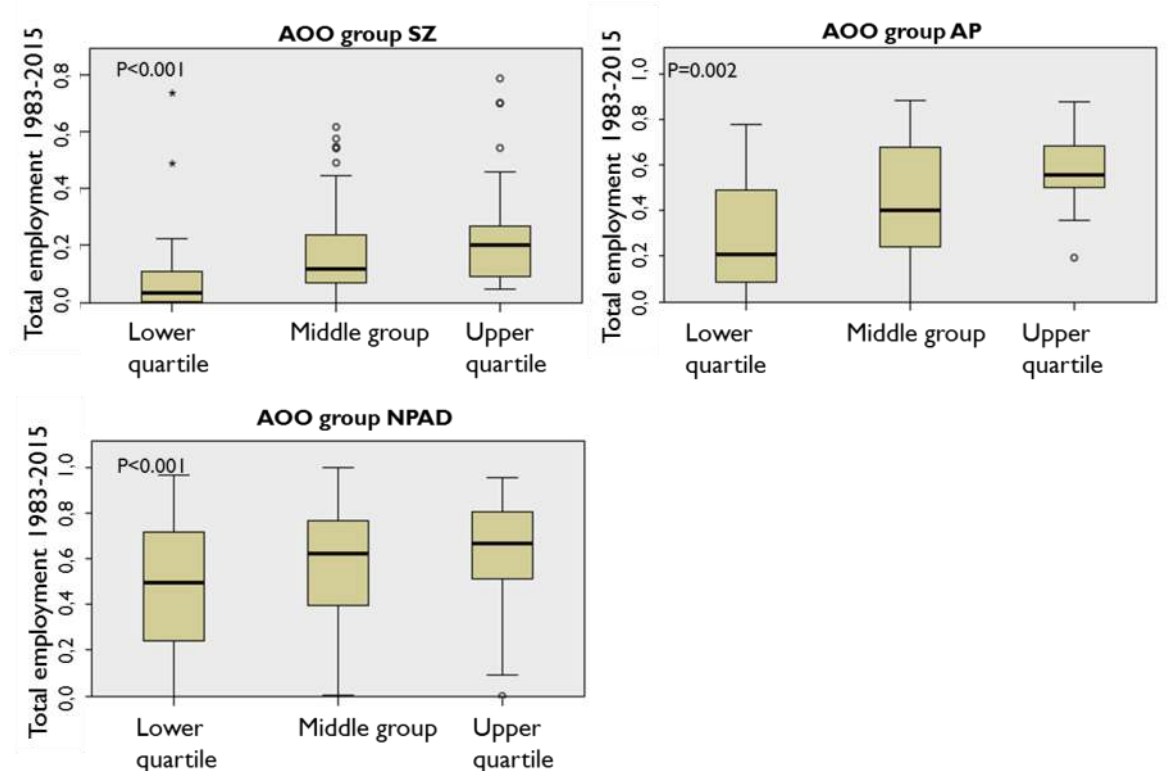


Fig. 2. box-plots of total employment per diagnosis and onset age groups (1983-2015). P-value is for Kruskal-Wallis test.

## DISCUSSIONS

Early onset mental illness results in poorer employment in all the included diagnosis. The difference between the AOO groups in the annual employment rate is often in the early stages of work life and evens out towards the end of the follow-up period. This is especially true in psychotic illnesses. In non-psychotic illnesses, the differences are visible during the whole follow-up time, but to get a better understanding, a longer follow-up is needed as onset to these illnesses happens later than in psychotic illnesses.

In all of the included diagnoses there is a statistical difference in the total employment outcome between AOO groups. Thus, the overall costs to societies are greater the earlier the onset happens. These results can guide in directing employment and social rehabilitation efforts towards the early onset patients.

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## Contact information

Johanna Immonen  
Aapistie 5 B, 90220 Oulu  
E-mail: johanna.immonen@student oulu.fi

