Parents’ labour market participation as predictor of children’s well-being: changes from 1984 to 1996 in the Nordic countries

Charlotte R. Pedersen1, Bjørn E. Holstein2, Lennart Köhler2

Background: This study analysed the influence of parents’ labour market participation on their children’s well-being in the five Nordic countries, and the changes from 1984 to 1996, during which unemployment rates generally rose in the Nordic countries. Methods: Parent-reported questionnaire data from two cross-sectional studies, 12 years apart, with 15 354 (in 1984) and 15 255 (in 1996) randomly selected children aged 2–17 years. The response rates were 67.0% (n = 10290) and 67.6% (n = 10317), respectively. The parents’ assessment of their children’s well-being was measured by six items, with three items focusing on psychological functioning and three items on social functioning. Results: The association between parents’ labour market participation and children’s well-being changed from 1984 to 1996. In 1984, more children in families with paid work had low well-being than did children in families without paid work. In 1996, however, the share of children with low well-being was higher among children in families without paid work. This change was most notable in Finland but did not occur in Denmark. The overall level of well-being among children in the Nordic countries remained stable over this period. Conclusion: The relationship between parents’ labour market participation and well-being among children changed from 1984 to 1996. In 1984 low well-being was most common among children in families with paid work, while in 1996 low well-being was more common in families without participation in the labour market. Social inequality in children’s well-being thus increased if parents’ labour market participation was used as an indicator of socioeconomic status.

Keywords: child, family, socioeconomic status, unemployment, well-being

Several studies show that children living in families with parental unemployment have increased levels of health problems.1–8 Knowledge of the mechanisms and pathways of these associations is less clear. The time trends of these associations have also been insufficiently investigated.9–11

Unemployment is considered to provoke mental distress and chronic stress in adults and may lead to disruption of family roles, decreased social status and increased financial strain.12–18 As children are highly sensitive to their parents’ emotional state, unemployment can affect the lives of children and make the children more vulnerable to risk factors for physical and mental health problems.19 Conversely, children’s health problems may affect parental labour market participation, and some women may use having a child as an alternative to getting paid work.11,19 Addressing this conflict between causation and selection in studies on health inequality is important.20

Very few studies emphasize the time trends in inequality in children’s health.4,9 However, a study in Denmark shows that social inequality in birth weight and perinatal mortality increased from 1982 to 1992.21

Some studies among adults show that the association between unemployment and mortality weakens as the general unemployment rate rises.22–25 The association between children’s health and parents’ labour market participation has not been related to the change in unemployment rates in a country over time.

In 1984 the economies of all five Nordic countries were expanding. In addition, the unemployment rate remained low, except for Denmark, where unemployment had been relatively high since the 1970s. The economic expansion deteriorated in the late 1980s because of recessions in Denmark, Iceland and Norway. In 1990 this recession reached Finland and Sweden. Especially Finland but also Sweden experienced a deep recession in 1990, with huge rises in unemployment. However, in 1996 the economies in all the Nordic countries were again prospering.

The Nordic countries are associated with a special model of welfare policy characterized by general, solidaristic and universal social legislation: the state redistribution welfare model.26 The size of the groups outside the labour market varies and so does the financial support society gives to these groups. In general, the Nordic countries have high employment rates, despite variation between countries. The unemployment rate rose in all five Nordic countries from 1984 to 1996 (table 1).27–29

The aim of this study was to investigate the influence of parents’ labour market participation on their children’s well-being in the Nordic countries and how this changed from 1984 to 1996.

Methods

Study population

This study was based on parent-reported data from two cross-sectional studies of random samples of children and their families in five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden): (i) the Nordic child survey, 198430 and (ii) health and welfare among children and adolescents in the Nordic countries, 1996.31 The study included random samples of 15 354 children in 1984 and 15 255 children in 1996. About 3000 children aged 2–17 years were drawn from the population registers of the respective national bureau of statistics in each participating country in each study.
Data collection

Data were collected by self-administered questionnaires. In 1984 two reminders were sent, the last including a new questionnaire (except Norway, where only one reminder was allowed).

The questionnaire was sent by mail to the parents or, in a few cases, the guardian of the selected child. The instructions asked the parent who was most familiar with the child’s situation to answer the questionnaire together with the child and the other parent if possible. In general, the same items were used in the questionnaires in 1984 and 1996, but some new items were added and a few were omitted. The items were on illness, symptoms, well-being, socioeconomic data, activities of the child and activities of the child and parents together, contact with the health care system and the parents’ health and well-being. The original Swedish items were translated into Danish, Finnish, Icelandic and Norwegian and adapted in a few cases, because the structure of the health care systems differed.

Analysis of non-respondents

Various approaches were used to study the characteristics of the non-respondents. Respondents and non-respondents differed on few variables, and these suggested that the respondents had more resources than the non-respondents. The following groups were overrepresented among the non-respondents: parents with little education, unskilled workers, parents without paid work, single parents and immigrants. The results of the non-response analysis were not used in the statistical analyses.

Measurement of well-being

The parents’ assessment of their child’s well-being was measured by six items comparing their child with children in general: dependent versus independent, passive versus active, lonely versus not lonely, restless versus calm, depressed versus happy and anxious versus confident. The parent rated each item on a scale from 1 to 7, the higher values indicating more positive psychosocial functioning. The full scale score thus ranged from 6 to 42 for each individual and was used as an index of well-being. For analysis, this index was dichotomized as the lowest quartile versus the rest. A related item was used to internally validate the well-being index: the child’s satisfaction with day care or school rated on a scale from 1 to 3 (very good, good or not good).

Measuring parents’ labour market participation

The parents’ labour market participation was dichotomized: at least one parent versus no parent in the family with paid work. Parents not in paid work were a mixed group, especially the women. The group comprised unemployed people on long-term sick leave, people awarded an anticipatory pension, homemakers and parents in an educational programme. The last group included teenage single mothers in secondary school, parents in social rehabilitation programmes and parents with one young child finishing their university education. Half the families with no parent in paid work were single-parent families, primarily single-mother families. One third of these single parents were in an educational programme in 1984 and one quarter in 1996. Among families with two parents both without paid work, 18% were in an educational programme in 1984 versus 9% in 1996.

Socioeconomic and demographic variables

Socioeconomic status

The Swedish socioeconomic classification was used to classify parents’ current or former occupation. This classification is based on trade union affiliation and the educational requirements for different occupations and is considered to be applicable to all Nordic countries. For each child, the highest-ranking parent determined the family social class. The children were classified into three groups: (i) low social class, skilled and unskilled manual workers and parents in an educational programme; (ii) middle social class, assistant non-manual and intermediate non-manual; and (iii) high social class, highest non-manual and self-employed.

Family structure

The children were categorized into three groups: (i) traditional family, the child lives with two biological or adoptive parents; (ii) single-parent family, the child lives with one biological or adoptive parent; and (iii) stepfamily, the child lives with one biological or adoptive parent and a stepparent.

Gender and age

Gender and age of the child (2–6 years, 7–12 years and 13–17 years).
Country
Denmark, Finland, Iceland, Norway or Sweden.

Statistical analysis
Validation of well-being index
Pearson’s correlation coefficient was used to compare the well-being index and the child’s satisfaction with day care or school. Factor analysis showed that the six items shared one latent factor. The first item explained 50% of the total variance, the second item an additional 15% and the third item 12%. Consequently, the sum score could be estimated and the sum used as one scale. In this study the sum score was dichotomized as the lowest quartile versus the rest. Forcing two factors from the six items showed that the first factor explained 85% of the total variance. One factor comprised dependent versus independent, passive versus active and lonely versus not lonely. The second factor included restless versus calm, depressed versus happy and anxious versus confident.

Logistic regression
The statistical analysis was performed as logistic regression with well-being or the items in the well-being index as the dependent variable. The parents’ labour market participation and the potential confounding variables were included in the statistical model simultaneously. All tests for interaction effect were conducted by introducing one interaction term in the model. The Hosmer–Lemeshow goodness-of-fit test was performed for all models analysed using logistic regression.

Results
In 1984, the response rate was 67.0% (n = 10 290), consisting of: Denmark 73.2% (n = 2218), Finland 83.2% (n = 2705), Iceland 59.6% (n = 1577), Norway 55.8% (n = 1856) and Sweden 62.4% (n = 1934). In 1996 two reminders were sent, the last including a new questionnaire, and 10 317 completed questionnaires were obtained, corresponding to a response rate of 67.6%. The response rate in Denmark was 68.6% (n = 2169), Finland 67.8% (n = 2034), Iceland 68.1% (n = 2048), Norway 64.5% (n = 1936) and Sweden 69.0% (n = 2130).

Table 2 shows the percentages of children in families without paid work in the two surveys in each of the five Nordic countries and in total. The overall level increased from 5.1% in 1984 to 7.0% in 1996. The countries differed considerably. Denmark changed little: from 5.1% to 6.6%. In Finland the rise was clear: from 7.4% to 11.8%. In Iceland the percentages were unchanged and low: from 3.5% to 3.3%. Sweden had the largest relative increase: from 3.6% to 7.2%. In Norway the percentage increased slightly, from 4.8% to 5.8%.

The outcome measure, low well-being, had the same cut-off point in both surveys: children with a sum-score of 32 points or less were categorized as having low well-being using the 25th percentile as the cut-off point for all countries and both surveys. The prevalence of children with low well-being in each country did not change between the two surveys. Denmark, Norway and Sweden were near 20%, Finland had 28% in both studies and Iceland declined from 37% to 36%.

Table 3 shows the results from logistic regression analysis with parents’ labour market participation as the independent variable. The dependent variable was well-being. The confounders included in the model were social class, family structure, gender and age of the child and country. The analyses were performed stratified by survey. In 1984, the prevalence of low well-being was higher among children in families with paid work versus without paid work [odds ratio (OR) = 0.74, 95% confidence interval (CI) 0.57–0.95]. Logistic regression analysis stratified by country determined the OR for each country, but none was statistically significant. In contrast, logistic regression analysis performed with the same variable as above but with data from 1996 gave the opposite result. The prevalence of low well-being was highest among children in families without paid work.
work versus those with paid work (OR = 1.42, 95% CI 1.11–1.81). Logistic regression analysis performed stratified by country determined the OR for each country, but the association was statistically significant for Finland only.

Logistic regression analysis was performed with data from both surveys with parents’ labour market participation as the independent variable, well-being as the dependent variable, all confounders included and one interaction component: survey × parent labour market participation. Interaction was demonstrated between survey and parents’ labour market participation (P = 0.03), meaning that the association between parents’ labour market participation and children’s well-being differed significantly between the two surveys. Replacing the two-sided interaction component with a three-sided interaction component (survey × parents’ labour market participation × country) demonstrated the contribution from each country to the interaction to be explored. The analyses showed that Finland was the main contributor.

Table 4 shows the results from internal validation of the well-being index with ordinary Pearson correlation coefficients comparing the well-being index and the child’s satisfaction with day care or school. The well-being index was clearly correlated with the child’s satisfaction with day care or school, with the correlation coefficients ranging from 0.17 to 0.31. The correlation was most marked in 1984. In both surveys, correlation coefficients increased as the children’s age increased.

Table 5 shows the results from logistic regression analysis with parents’ labour market participation as the independent variable. The analysis was stratified by survey with all confounders included in the model, separately for each of the six items composing the well-being index. The ORs were below 1 for all items in 1984, but none was statistically significant. The ORs were above 1 in 1996 for all items, and statistically significantly for three. Thus, the variation in loneliness, restlessness and anxiousness was clearly related to having parents without paid work in 1996 but this was not the case in 1984. When data from both surveys were combined and an interaction component was included (parents’ labour market participation × survey), only restless versus calm differed significantly between the two surveys.

The well-being among children in single-parent families with the parent in an educational programme was comparable to that among children in single-parent families without work and not in an educational programme in both surveys. In 1984, well-being among children in two-parent families with both parents in an educational programme was non-significantly better than well-being among children in two-parent families without paid work who did not say they were in an educational programme. This did not differ in 1996 (data not shown).

Discussion

The influence of parents’ labour market participation on their children’s well-being in the Nordic countries changed from 1984 to 1996. In 1984, children with high well-being were more prevalent in families without paid work. In 1996, in contrast, high well-being was more prevalent in families with paid work. Finland demonstrated the most clear and the only statistically significant increase in OR. The OR increased non-significantly in Iceland, Norway and Sweden.

### Table 4

<table>
<thead>
<tr>
<th>Low well-being (%)</th>
<th>Child’s satisfaction with day care or school</th>
<th>Spearman correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very good</td>
<td>Good</td>
</tr>
<tr>
<td>1984</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2–6 years</td>
<td>16.2</td>
<td>33.7</td>
</tr>
<tr>
<td>7–12 years</td>
<td>15.7</td>
<td>34.3</td>
</tr>
<tr>
<td>13–17 years</td>
<td>10.3</td>
<td>27.7</td>
</tr>
<tr>
<td>1996</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2–6 years</td>
<td>16.5</td>
<td>28.9</td>
</tr>
<tr>
<td>7–12 years</td>
<td>17.6</td>
<td>31.1</td>
</tr>
<tr>
<td>13–17 years</td>
<td>14.0</td>
<td>29.4</td>
</tr>
</tbody>
</table>

### Table 5

<table>
<thead>
<tr>
<th>Adjusted odds ratios (95% confidence interval) for each item in the well-being index by parent’s labour market participation, 1984 and 1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
</tr>
<tr>
<td>Dependent versus independent</td>
</tr>
<tr>
<td>Passive versus active</td>
</tr>
<tr>
<td>Lonely versus not lonely</td>
</tr>
<tr>
<td>Restless versus calm</td>
</tr>
<tr>
<td>Depressed versus happy</td>
</tr>
<tr>
<td>Anxious versus confident</td>
</tr>
</tbody>
</table>

The measures for parents’ labour market participation and the potential confounding variables (gender, age, social class, family structure and country) were included in the statistical model simultaneously. The analyses were stratified by survey.
Unemployment rates were increasing in the Nordic countries in this period, except Denmark, which had experienced a varying but high unemployment rate for more than 10 years. At the same time, women’s labour market participation increased. Few studies have investigated the association between parents’ labour market participation and children’s health and well-being by comparing time periods with high and low unemployment rates. In Denmark, the correlation between high maternal education and low infant mortality increased from 1982–1983 to 1991–1992. Studies on social inequality show contradictory results on the association between socio-economic status and health and well-being among children. Some authors show increasing equality in health, especially among adolescents today. However, most of the studies using social class (based on occupation) to indicate socioeconomic status do not include children whose parents are without paid work or do not place them in a separate category. Studies among adults show that the association between unemployment and mortality weakens as the general unemployment rate increases, especially among men.23–25

This study showed that the effect of parents’ labour market participation on their children’s well-being changed over time. It followed the changes in the unemployment rates in the Nordic countries, thus illustrating that the consequences of being without paid work might depend on the social context and the unemployment rate. It can be hypothesized that, in periods with low unemployment rates, many families may choose voluntarily to stay out of the labour market to take care of their children, whereas in times of high unemployment rates some families are forced to stay out of labour market. In addition, when unemployment is high, the prospect of becoming re-employed is reduced compared with periods with lower unemployment, and this may therefore enhance the strain on the family. More families may choose to have a child because the mother is unemployed. Further, these families may receive less support from society, relatives and friends in periods with high unemployment. Thus, the economic recession in all Nordic countries led to substantial reductions in the usual social support system, both in quantity and quality, such as in subsidies, day care, schools and health services.40

It is generally accepted that the consequences of parental unemployment on children’s health and well-being are mediated by family mental strain, financial strain and perhaps an increased level of risk behaviour (such as alcohol habits) and contact with the health care system.9–11 Parent-reported data were chosen to cover the wide age range of children and to obtain reliable data on items concerning the parents. The parents were instructed to answer the questionnaire together with the child and the other parent, if possible. Further, the samples were representative in each country and a broad age range was chosen. Non-respondent analyses showed that parents without paid work and other disadvantaged groups had a reduced response rate. However, the decisive factor is whether non-response varies among parents with and without paid work depending on the well-being of their children. Even though there might be such a selection, there is no reason to expect it to be strong.

Parents’ labour market participation was dichotomized: at least one parent with paid work versus none. Thus, the selected families had a very weak connection to the labour market at the time. A continuum exists between being fully integrated in the labour market and being excluded from the labour market. Further, parents are not employed for many reasons, and the differentiation between being voluntarily and involuntarily unemployed is often obscure. Selecting families with no parents in paid work achieved a more homogeneous group, with a minimal proportion of parents who had chosen that situation. The measure of well-being was an index constructed by Lindström as part of a measure of the quality of life of children in the Nordic countries. The index expresses the parental experience of the child’s psychosocial functioning and included three items on psychological functioning and three items on social functioning. These items were identical in the two surveys. The correlation analyses showed a high correlation with another measure of children’s well-being: satisfaction with day care or school. The level of well-being among children in the Nordic countries remained stable over the years, illustrated by an unchanged cut-off point for the lowest quartile between the two surveys. As the parents reported the data, the self esteem of the parents can interfere with their response to these items. This can be regarded as a weakness in studies with parent-reported data. Conversely, parent’s self esteem may be a part of the pathway between parental non-employment and low well-being among their children. The age and gender of the child, the highest social class in the family, the family type, the country and the survey were considered as confounders in all analyses.

Conclusion

The relationship between parents’ labour market participation and well-being among children has changed from 1984 to 1996. In 1984 low well-being was most common among children in families with paid work, while in 1996 low well-being was more common in families without participation in the labour market. Social inequality in children’s well-being thus increased if parents’ labour market participation was used as an indicator of socioeconomic status.

Acknowledgements


Key points

- The associations between parents’ labour market participation and well-being among children in the five Nordic countries and the changed from 1984 to 1996 were studied.
- Social inequality in children’s well-being increased, if parents’ labour market participation was used as an indicator of socio-economic status.
- The consequences of being without paid work might depend on the social context and the unemployment rate.

References


8 Pedersen CR, Madsen M. Parents' labour market participation as a predictor of children's health and well-being: a comparative study in five Nordic countries. *J Epidemiol Community Health* (in press).

Received 8 April 2003, accepted 22 April 2004