Do Long Work Hours Impede Workers' Ability to Obtain Preventive Care?
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I. BACKGROUND AND OBJECTIVES

a) Working Long Hours and Adverse Health and Safety Outcomes
   • Working long hours is very common among U.S. workers.
   • Adverse outcomes of long work hours: sleep problems, fatigue, negative health behaviors, injuries, illnesses, poor work-family balance, etc.

b) Access to Preventive Health Services
   • Americans receive about half of the recommended preventive health services.

c) Long Work Hours and Access to Health Care
   • Work responsibilities and work time were the most commonly mentioned individual barriers to accessing primary care.
   • Working long hours was found to be a significant barrier to accessing health care in Canada, Europe and Japan.

d) Objectives
   • This study aims to assess whether and to what extent long work hours impede workers' access to recommended preventive health services.

II. METHODS

a) Data Source
   • 2002-2010 Medical Expenditure Panel Survey (MEPS)

b) Study Population
   • Privately insured full-time workers aged 18-64.
   • Age range is 50-64 for analyses considering mammograms.
   • The dental check-up studies limit the population to workers with dental insurance.

c) Outcome Variable
   The outcome of the study is failure to obtain each of the following preventive health services:
   1. Annual flu vaccination
   2. Annual routine check-up
   3. Semi-annual dental check-up
   4. Biennial mammogram

d) Main Independent Variable
   • Work hours were analyzed as a categorical variable: 35-40 (reference group), 41-50, 51-60, and 61 or more hours/week.
   • Also, work hours were analyzed as a dichotomous variable: 35-60 (reference group) vs. 61+ hours/week.
e) Statistical Method

- Logistic regression applying the strata, primary sample units and the adjusted person weight.
- Our hypothesis is that working long hours is associated with an increased probability of not obtaining the specified preventive health service.
- Confounders: age, gender, race, education, family income, self-reported physical health status, self-reported mental health status, size of the employer and a dummy variable indicating calendar year.

III. RESULTS

Working over 60 hours per week was significantly associated with an increased risk of not obtaining a semi-annual dental check-up (OR=1.25, p<0.001), or a biannual mammogram (OR=2.04, p<0.01). The association between working long hours and failing to obtain a flu vaccination was not significant. Workers who worked over 60 hours/week were more likely to obtain a routine check-up than those working 35-60 hours/week.

<table>
<thead>
<tr>
<th>Hours/Week</th>
<th>Flu Vaccination</th>
<th>Routine Check-up</th>
<th>Dental Check-up</th>
<th>Mammogram</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>OR</td>
<td>95% CI</td>
<td>OR</td>
<td>95% CI</td>
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<td>35-40</td>
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<tr>
<td>41-50</td>
<td>1.03 (0.96, 1.09)</td>
<td>1.02 (0.97, 1.09)</td>
<td>0.96 (0.90, 1.04)</td>
<td>0.82 (0.61, 1.09)</td>
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<tr>
<td>51-60</td>
<td>1.02 (0.94, 1.11)</td>
<td>0.97 (0.90, 1.05)</td>
<td>1.02 (0.93, 1.11)</td>
<td>0.99 (0.66, 1.49)</td>
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<tr>
<td>&gt;60</td>
<td>1.06 (0.96, 1.18)</td>
<td>0.87** (0.79, 0.96)</td>
<td>1.24*** (1.10, 1.39)</td>
<td>1.95** (1.27, 2.99)</td>
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<td>&gt;60</td>
<td>1.05 (0.95, 1.17)</td>
<td>0.87** (0.79, 0.95)</td>
<td>1.25*** (1.11, 1.40)</td>
<td>2.04** (1.33, 3.13)</td>
</tr>
</tbody>
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* p<0.05  
** p<0.01  
*** p<0.001

IV. CONCLUSIONS

- This is the first study in the U.S. to measure the effects of long work hours on access to preventive health services.
- Long work hours might be a barrier to accessing particular preventive health services including dental check-ups and mammograms.
- Employers should consider avoiding excessive work hour schedules (>60 hours/week) and help facilitate access to health care for employees working long hours.

If you have any questions, please feel free to contact Xiaoxi Yao at yao.147@osu.edu