A Quantitative Analysis of the affects of Health and Sleep Variables on Marriage

Abstract
This was a research placement carried out at the University of Warwick, under the supervision of Dr. Stella Chatzitheochari, with assistance from Dr. Roxanne Connelly. The topic of marriage has always been at the forefront of sociological review from as early as Durkheim and Marx. Many sociologists have carried out studies, but a lack of specific quantitative research has limited the scope of analysis. As such this task aimed to scale down the variables of the selected social surveys (British Household Panel Survey, Integrated Household Survey, Understanding Society) to try and create a clearer analysis. Many sociologists, such as Umberson (1988, 1992, 2010) have carried out research in this field. Her research, for example, demonstrates groundbreaking theories in the relationship of marriage, health and sleep. Umberson suggests an idea of social ties and socialisation (1982), and that health and sleep quality will improve with a stronger relationship, i.e. marriage. The aim of this small research task was therefore to use the works of Umberson, and other similar studies, as a background, but utilise wide-scale British surveys to generate more contemporary evidence that identifies links between the three variables, and could thus lead to new theories and ideas.

Methods
A number of steps were taken before analyzing the three variables. These steps took a while to complete, and would often have to be redone multiple times due to my lack of quantitative knowledge.

Firstly, I had to choose surveys that would have the right variables, and then choose the appropriate (usually most recent) wave to analyse. When the surveys were first downloaded I had to isolate the required variables and their weighted versions. It was then necessary to weight the variables so that analysis would be easier and more accurate.

After doing this, the variables had to be recoded. This meant changing the categories by which people had answered into three/four distinct numbered answers, and then assigning the missing values so that is would not hinder the results (see below for an example).

Cross tabulations were then run, which allowed for a basic analysis to be undertaken. An example of the process can be seen in the adjacent dot chart figure for the Understanding Society data set.

Conclusion
The end of my placement should have allowed me to roughly understand if there was a relationship between marriage, sleep and health, and whether the latter two had an impact on the former. The topic of marriage and health is still very much a new and developing one. This research should have therefore begun to go into more depth to look at this relationship.

Background to Choosing Surveys (Example)
Understanding Society Survey (December 2009)

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Integrated Household Panel Survey

Percentages of those who had responded.

Table: Integrated Household Panel Survey

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Number of cases</th>
<th>Number of Males</th>
<th>Population size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>261</td>
<td>131</td>
<td>5,416.00</td>
</tr>
<tr>
<td>Married</td>
<td>261</td>
<td>131</td>
<td>5,416.00</td>
</tr>
<tr>
<td>Divorced</td>
<td>261</td>
<td>131</td>
<td>5,416.00</td>
</tr>
<tr>
<td>Widowed</td>
<td>261</td>
<td>131</td>
<td>5,416.00</td>
</tr>
</tbody>
</table>

Ordinarily a p value result of zero would mean we can reject the null hypothesis. This would seem true to the evidence presented in the table. However, because the results were incorrectly inputted the p value is not a reliable source.

References

Example of what was produced on Stata.

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References