Sleep Disturbances Among Older People: Age, Period and Cohort Effects

As part of the SomnIA: Sleep in Ageing research project, Workpackage 1 involves secondary data analysis of a number of British surveys, in particular, longitudinal surveys. This briefing paper describes one part of this analysis, published in Social Science and Medicine (Dregan & Armstrong, 2009), the datasets used and the main findings in relation to the sleep of older people.

Age, Period and Cohort Studies

Age: The chronological age of the person at the time of the survey.

Birth Cohort: A group of people born in a particular period (e.g. a particular year or set of years).

Period: A particular time point, or set of years.

The aim of this part of the research was to determine the separate effects of age, cohort and period on sleep loss through worry and how they may interact. The effects of predictor variables on sleep loss through worry were also analysed.

Surveys and Measures

Data were collected from two longitudinal surveys containing the same single item measure on sleep loss through worry for two groups of older adults at five different time periods.

Survey 1:
Health and Lifestyle Survey (HALS)
- Sample of the population of England, Scotland and Wales
- First carried out in 1984-1985 (HALS1), 9003 adults aged 25 and over
- Follow-up in 1991-1992 (HALS2) with 5352 HALS1 respondents

Survey 2:
English Longitudinal Study of Ageing (ELSA)
- Representative sample of people aged 50 and over (and their partners).
- Baseline: 1998-2001
- Wave 1: 2002/2003
  12,100 participants
- Wave 2: 2004/2005
  Not used as no sleep question
  8038 participants from wave 1
  1733 new participants

“Have you lost sleep through worry?”
Not at all
Not more than usual
More than usual
Much more than usual

Predictor variables
- Gender
- Ethnicity
- Socio-economic status (social class)
- Health status
- Smoker or Alcohol problems
- Education
- Marital status
- Accommodation type
- Household income
- Effect of retirement on health
- Financial problems in past year
- Mental health problems
- Job loss
- Family death or illness
- Region of residence within England

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The participants in the longitudinal surveys were grouped into birth cohorts and sleep loss due to worry was then tracked across the various time periods (1984-5, 1991-2, 1998-01, 2002-3, 2006-7) at which data were collected. An overview of the 3 most commonly used methods for looking at age-period-cohort analysis are discussed in greater detail in a commentary paper accompanying Dregan & Armstrong’s article (Harding, 2009).

Effects of Age and Period

Age
As age increased, the general pattern was a decline in sleep loss through worry for all birth cohorts. Therefore people in their fifties and sixties reported losing more sleep due to worry than those in their eighties.

Period
There were increased levels of sleep loss due to worry in the early 1990s compared with other years. We can speculate that this was due to the economic downturn at this time. There was a particularly marked increase in sleep loss due to worry for those aged in their 50s and early 60s, who would have been most likely to still be in the job market at that time.

Gender differences were also found. In the early 1990s, more women in all age groups reported increased sleep loss due to worry, whereas for men, the highest increase in sleep loss was for those in their early 50s.

Predictor Variables
To further examine the possibility that the early 1990s recession resulted in higher levels of sleep loss, the influence of the predictor variables at two time periods were examined:
- In 1991/1992, health problems followed by financial concerns were the main predictors of loss of sleep due to worry.
- In 1984/1985, health problems was again the main predictor, but financial concerns was not a significant predictor (unlike in 1991/1992).

Media Coverage

References


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