

Validating Self-Reported Measures of Productivity In a Manufacturing Setting

A study sample of 5,396 manufacturing employees (response rate: 53%) recently completed a 15-minute survey with items from the Work Limitations Questionnaire. This sample averaged 46.7 years of age and was 80% male.

To validate the survey in a manufacturing environment, this study compared self-reported work limitations on each of seven measures with recorded adverse event measures developed from absenteeism records as well as workers' compensation, short-term disability, group health and paid pharmaceutical claims.

With only a few exceptions, the odds of incurring absentee hours or WC, STD, medical or drug events increased significantly when workers reported work limitations. Mostly notably, when workers said they were limited, their chances of recording greater-than-expected rates of adverse events over the next year rose sharply.

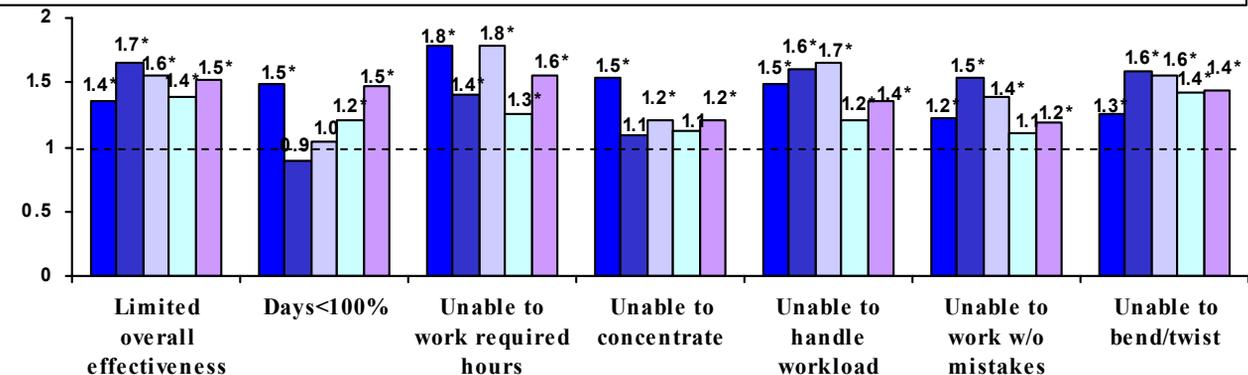
The study results were intended to answer general concerns about responder accuracy or truthfulness by examining productivity self-reports in relation to administrative measures that the field accepts as valid indicators of the impact of health on work productivity. Overall, the productivity self-reports exhibited the expected, logically consistent relationships with a wide variety of adverse event measures drawn from multiple administrative sources.

Key Findings

- Employee self-reports on productivity surveys reflect credible appraisals of the impact of health on work performance
- Self-reported work limitations correlate with adverse events whether assessed retrospectively, concurrently or prospectively
- Productivity self-reports broaden the view of the burden of disease on the individual
- Linkage to loss in productivity dollars needs further study

Odds of having Adverse Events Given Self-Reported Work Limitations

■ Absentee hours ■ ≥1 WC claim ■ ≥1 STD claim ■ > Median medical dollars ■ > Median prescription dollars



*p<.05. Notes: Odds ratio estimates for each productivity variable with corresponding administrative variable controlled for age and gender. Self-reported work impairment: May 2001; the adverse events: June 2001-April 2002.

Reference:
 Allen HM and Bunn WB. Validating Self-Reported Measures of Productivity at Work: A Case for Their Credibility in a Heavy Manufacturing Setting. Journal of Occupational and Environmental Medicine. 2003; 45(9):926-940.