

The Association Between Worker Productivity and Quality of Life in GERD

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CONCLUSIONS

- Decreased quality of life due to GERD was strongly associated with reduced worker productivity.
- This observed association helps to validate self-reported measures of impaired worker productivity associated with GERD.
- Improving symptoms and quality of life of employees with GERD may reduce the overall costs to employers related to reduced productivity.

BACKGROUND

- Symptoms of gastroesophageal reflux disease (GERD) occur in approximately 14 to 20% of the population on at least a weekly basis.^{1,2,3}
- These symptoms can result in increased health care costs and significantly impaired health-related quality of life (QOL).⁴
- Symptoms may result in a large burden on employers, as GERD affects people in their productive years, thus impacting work productivity and increasing absenteeism.

OBJECTIVE

- To examine the relationship between reductions in disease-specific QOL, and the impact of GERD symptoms on worker productivity and absenteeism in a cohort of employed GERD sufferers.

METHODS

Data Source:

- A database of >600,000 households representative of the US population maintained by a national survey research firm.
- A random sample from the database who identified themselves as chronic heartburn sufferers was surveyed then contacted by telephone to ascertain current employment status, work productivity, and QOL (n=9,128).

Patient Sample:

- Currently employed patients reporting chronic heartburn and using prescription strength medication.

Survey Instruments:

- Work Productivity and Impairment Questionnaire for Patients with Symptoms of Gastroesophageal Reflux Disease (WPAI-GERD), a validated instrument for self-reported absenteeism and productivity.
- Quality of Life in Reflux and Dyspepsia (QOLRAD), a validated instrument for measuring disease-specific QOL.

Data Analysis:

- Individuals were categorized into those with and without reduced work productivity using the WPAI-GERD.
- QOLRAD scores ranged from 1 (low) to 7 (high) and provided computation of a total score and 5 domain scores.
- QOLRAD scores were compared between workers with and without lost work productivity.
- The presence of reduced work productivity was explored across varying levels of QOL.

RESULTS

- 1003 currently employed individuals with GERD symptoms were surveyed.
- 33% reported reductions in work-related productivity due to GERD symptoms.
- Individuals with reduced work productivity were younger than those without reduced work productivity (mean age 48.5 years vs. 51.2 years; $P<0.001$) but were similar in gender and income.
- There was an association between quality of life and worker productivity (Table).

Table. Mean QOLRAD scores by worker productivity level

QOLRAD Measure	No Reduced Productivity	Reduced Productivity	P-value
Total QOLRAD	6.33	5.26	<0.001
Emotional distress	6.47	5.37	<0.001
Sleep disturbance	6.38	5.34	<0.001
Food and drink problems	5.89	4.64	<0.001
Physical or social function	6.74	5.96	<0.001
Vitality	6.16	4.99	<0.001

- Respondents with reduced work productivity experienced significantly lower QOLRAD scores compared to those without reduced productivity ($P<0.001$).
- QOL reductions were seen in the total score as well as each of the 5 domains ($P<0.001$).
- When QOLRAD scores were categorized into groups with increasing QOL scores, the association between QOL and work productivity persisted.

- Patients in the lowest category of QOL had the highest percent (90%) of respondents reporting reduced work productivity, followed by those in the middle and lowest categories (63% and 22%, respectively; $P<0.001$) (Figure).

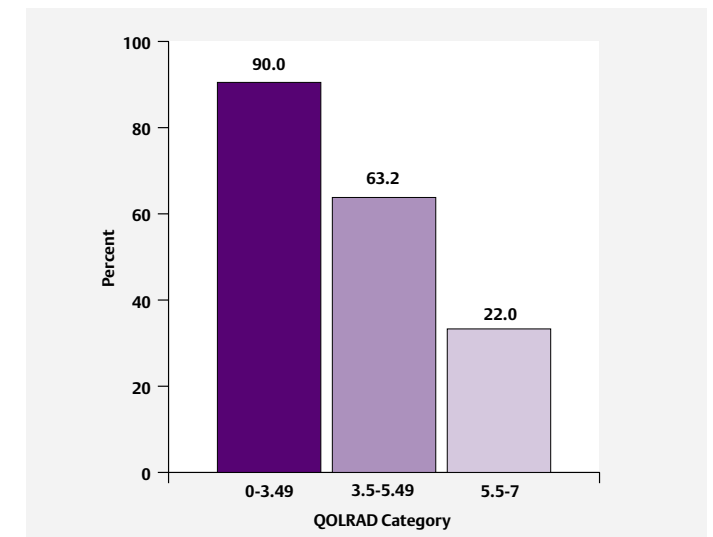


Figure. Proportion of individuals with reduced productivity by QOLRAD score. Overall, P value <0.001.

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