# Risk assessment for job burnout with a mobile health web application [using questionnaire data: a proof of concept study](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5093935/)

* Burnout Problem:
  + rampant epidemic in working societies
  + productivity loss
  + healthcare costs
* Tests undertaken to determine overall health:
  + The tests were available online for 6 months
  + Maslach Burnout Inventory-General Survey (MBI-GS) to calculate a burnout risk index (BRIX).
    - The test is the industry standard, but it is owned and copyrighted by [MindGarden Inc.](https://www.mindgarden.com/content/4-about-us)
    - Predicts likelihood of burnout caused by work related stress
    - Comprised of 16 questions
      * 5 refer to exhaustion and cynicism
      * 6 refer to professional efficacy and self-perception
      * 5 other
    - Validated across cultures and occupations over the internet
    - High scores on exhaustion and cynicism and low scores on professional efficacy indicate burnout
  + Perceived stress scale
    - A global measure of accumulated stress throughout the previous month
    - Excellent Reliability at predicting burnout, with a Cronbach’s alpha at .91
  + Insomnia severity index(ISI)
    - They used a 7 item Insomnia Severity Index to rate difficulties falling and staying asleep
    - .87 Cronbach’s alpha was .87
  + Profile of mood states
    - 35 questions
      * 28 targeted depressive mood, hostility, and fatigue
      * 7 items targeted vigor
    - 5 points per question
* Over 6 months, the study accumulated 11,311 volunteers, 85% were women, median age 33 years
  + 20% no risk of burnout
  + 54.7% had mild to moderate risk
  + 25.3% had high risk
  + Volunteers were recruited through the following means:
    - Twitter and Facebook posts
    - Facebook ads targeting women with the following interests:
      * Health System
      * Primary School
      * Health System
      * Hospital
      * Medicine
      * Physician
      * Public Health
      * Nursing
    - Links to rehabilitation clinics with a burnout reference
    - Google search engine research
* The test was offered in both English and German
* Data was sent to a splunk instance for analysis
* Reliability of the results were considered good to excellent and are likely reliable enough for casual screening
  + “A low-threshold web application can reliably assess the risk of job burnout.”
* 80% of the volunteers showed symptoms of clinical burnout
  + Only 30% of workers show symptoms in the general population, so individuals suffering from burnout were more likely to take the tests
* “becoming aware of one’s burnout risk and mental health burden is a premise to initiate preventive and therapeutic steps.”
* “Low socioeconomic status and living alone, an index of low social support, were expectedly associated with greater scores in virtually all burnout measures.”
* “Low socioeconomic status and living alone, an index of low social support, were expectedly associated with greater scores in virtually all burnout measures.”
  + It’s important to note that 85% of volunteers were women
* “Low socioeconomic status and living alone, an index of low social support, were expectedly associated with greater scores in virtually all burnout measures.”

[Actual Test](https://www.burnoutprotector.com/)