

Fatigue and avoidance among individuals with chronic disease: a meta-analysis

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In the current meta-analysis, a small, positive association between fatigue and avoidance was found across 62 samples of nineteen chronic diseases

BACKGROUND:

- Fatigue is a common, debilitating symptom experienced by individuals with chronic disease¹
- Avoidance has been identified as a transdiagnostic risk factor for other physical health (e.g., chronic pain)² and mental health (e.g., depression) problems³
- Avoidance may be a risk or maintaining factor for fatigue severity among individuals with chronic disease
- **The current study sought to synthesize the strength of the association among fatigue and avoidance across chronic disease samples**

METHOD:

- Databases searched: PubMed, PsycINFO, CINAHL, ProQuest Dissertations & Theses
- Eligible studies measured fatigue and avoidance in chronic disease samples
- Chronic disease was defined as: a condition that has lasted or is expected to last 1-year or longer or has resulted in continued medical care or impairment in functioning
- Data was analyzed with a random-effects model
- A single weighted mean effect-size was computed for fatigue and avoidance
- Mixed-effects meta-regression were conducted to examine moderating variables
- Publication bias was also examined

RESULTS:

- 62 samples from 57 studies were included
- 19 chronic disease samples were represented, including cancer, chronic fatigue syndrome, multiple sclerosis, and rheumatoid arthritis
- A positive association was found between fatigue and avoidance, $r(62) = .21, p < .001, 95\% \text{ CI } [.17-.25], SE = .02$
- Findings indicate a significant amount of between and within-study heterogeneity, $Q(61) = 270.31, p < .001, I^2 = 79.86, p < .001$
- Moderation analyses found that certain cultural dimensions (power distance and uncertainty avoidance) and samples (cancer and rheumatoid arthritis) affect the strength of the association
- Publication bias was assessed with several methods (funnel plot, trim-and-fill, egger's regression test, rank correlation test, p-curve)

DISCUSSION:

- Findings suggest that individuals with a chronic disease have a bi-directional positive relationship between fatigue and avoidance
- The association was strengthened in cultures less accepting of inequality and less tolerant of uncertainty
- The association was stronger among individuals with cancer and weaker among individuals with rheumatoid arthritis
- Results can be used to inform interventions for individuals with chronic disease experiencing fatigue

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