



# ARCBITE

Brokering Innovation Through Evidence

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## The prevalence of comorbidities in people with epilepsy: a systematic review



**Epilepsy is a common neurological condition that affects up to 3% of the population during their lifetime.**

For people with epilepsy, the occurrence of another medical condition or conditions (comorbidities) impacts negatively on their quality of life, care and healthcare management. This burden may also be greater for deprived populations.

### **What was the aim of the project?**

Our aims were to estimate the prevalence (i.e. number of cases present in the population at a given time) of common (physical and mental health) comorbid medical conditions in people with epilepsy,

and to explore whether the burden is greater in more deprived populations of people with epilepsy.

### **What did we do?**

We undertook a systematic review of existing studies that have explored the prevalence of common comorbidities in people with epilepsy of all ages from high-income-countries, middle-income-countries, and low-income-countries.

### **How did we involve people?**

We involved a Public Adviser in this review. He is acknowledged for his valuable contributions in the co-production of the review's research questions, protocol, commenting on findings and in the review's write-up.



## What we found and what does this mean?

We found that the common comorbidities for people with epilepsy of any age are anxiety (19.2%) and depression (17.4%) and that rates vary with age. Amongst adults with epilepsy, after anxiety and depression, we found that hypertension (18.2%), stroke (14.5%), heart disease (11%), diabetes (10.2%) and arthritis (9.2%) are the most common comorbidities.



The identification, prevention and treatment of common comorbidities in people with epilepsy should be an important part of their healthcare management. Our review is expected to help inform such improvements.

### For more information:

Doherty A.J., Harrison J., Christian D.L., Boland P., Harris C., Hill J.E., Stephani A-M., Reed J., Duffield S., Marson T.G., Clegg A.J. The prevalence of comorbidities in epilepsy: a systematic review. *British Journal of Neuroscience Nursing*. 2022.18:2;98-106. <https://doi.org/10.12968/bjnn.2022.18.2.98>

We found no evidence to suggest that a country's income status was a moderating factor for anxiety or depression. However, we found lower rates of hypertension and stroke in lower-income-countries where epilepsy is more commonly symptomatic of brain infection or injury compared to higher-income-countries.

## What next?

We found that very few international studies have investigated the prevalence of physical health related comorbidities in people with epilepsy. Physical health related comorbidities in people with epilepsy therefore warrant further investigation. Such investigations may inform opportunities to intervene earlier and or treat these common conditions in people with epilepsy and thereby improve their quality of life, care and healthcare management.

## What is NIHR ARC North West Coast?

The Applied Research Collaboration North West Coast (ARC NWC) is a partnership between universities, NHS, public, etc. Its mission is to undertake applied research to improve public health, wellbeing, quality of care & reduce health inequalities across the North West Coast region.

<https://arc-nwc.nihr.ac.uk>