

IDIOPATHIC ENVIRONMENTAL INTOLERANCE ATTRIBUTED TO ELECTROMAGNETIC FIELDS (IEI-EMF): A SYSTEMATIC REVIEW OF IDENTIFYING CRITERIA.

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Background and Aims: The lack of validated criteria for defining and assessing IEI-EMF affects the quality of the research into the disorder and increases methodological heterogeneity. Therefore, it is difficult to compare or integrate the findings of different studies. The main aim of this review was to define and summarize the criteria that previous studies have employed to identify IEI-EMF subjects.

Methods: A literature search was performed in April 2010 using a combination of keywords related to 'electrosensitivity,' exposure and health outcome. Databases included were EMBASE, Medline, Psychinfo, Scopus and Web of Science. Additionally, citation analyses were performed for key papers, reference sections of relevant papers were searched, conference proceedings were examined and a literature database held by the Mobile Phones Research Unit of King's College London was reviewed.

Results: Eighty studies were included. The criteria predominantly used in the studies to identify IEI-EMF samples were: 1. Self-report of being (hyper)sensitive to EMF. 2. Attribution of symptoms to at least one specific EMF source. 3. Absence of any medical disorder capable of accounting for these symptoms 4. (Hyper)sensitivity to EMF could be either generalized (attribution to various EMF sources) or mobile-phone specific, visual display unit-specific or even domestic appliance-specific. 5. Symptoms occur soon after the individual enters the "exposed area" or uses an EMF source. 5. Report of a negative impact in daily life functioning 6. Avoidance behaviour towards EMF source(s).7. Increased symptom report. Symptom assessment was mainly based on non-standardized scales which are incomparable between studies. Experimental studies used a larger number of criteria compared to the observational ones.

Conclusions: Remarkable heterogeneity has been found regarding the criteria being used by the reviewed studies due to explicit differences in their conceptual framework. Further work is required to produce consensus criteria for research purposes. This could be reflected by the development of an international protocol.