Overgeneralization

Overgeneralization occurs when conclusions drawn from a specific study, sample, or dataset are **unjustifiably extended** to broader populations, settings, or conditions **without sufficient evidence**.

Characteristics

- Applying results from a **small**, **non-representative**, or **highly selective** sample to the general population
- Assuming findings from **one disease**, **subtype**, or **demographic** are valid for all others
- Ignoring **contextual limitations** such as duration, comorbidities, or clinical setting

Examples in Clinical Research

- Claiming that a treatment tested in 40 young adults is effective “for all tinnitus patients”
- Generalizing results from a single center or region to global clinical practice
- Extending short-term outcome improvements to long-term prognoses without follow-up data

Why It Matters

- Leads to **misapplication of therapies** in inappropriate patients
- Undermines **external validity** (generalizability) of clinical research
- Contributes to **misleading clinical guidelines** or practice changes based on insufficient scope

Red Flags

- Small or homogeneous sample size with broad conclusions
- Lack of subgroup analysis or demographic stratification
- Absence of discussion on **limitations** or **generalizability**

Related Concepts

- External Validity
- Selection Bias
- Rhetorical Inflation
- Conceptual Ambiguity

See Also

- How to critically read a scientific article
- Principles of Evidence-Based Medicine