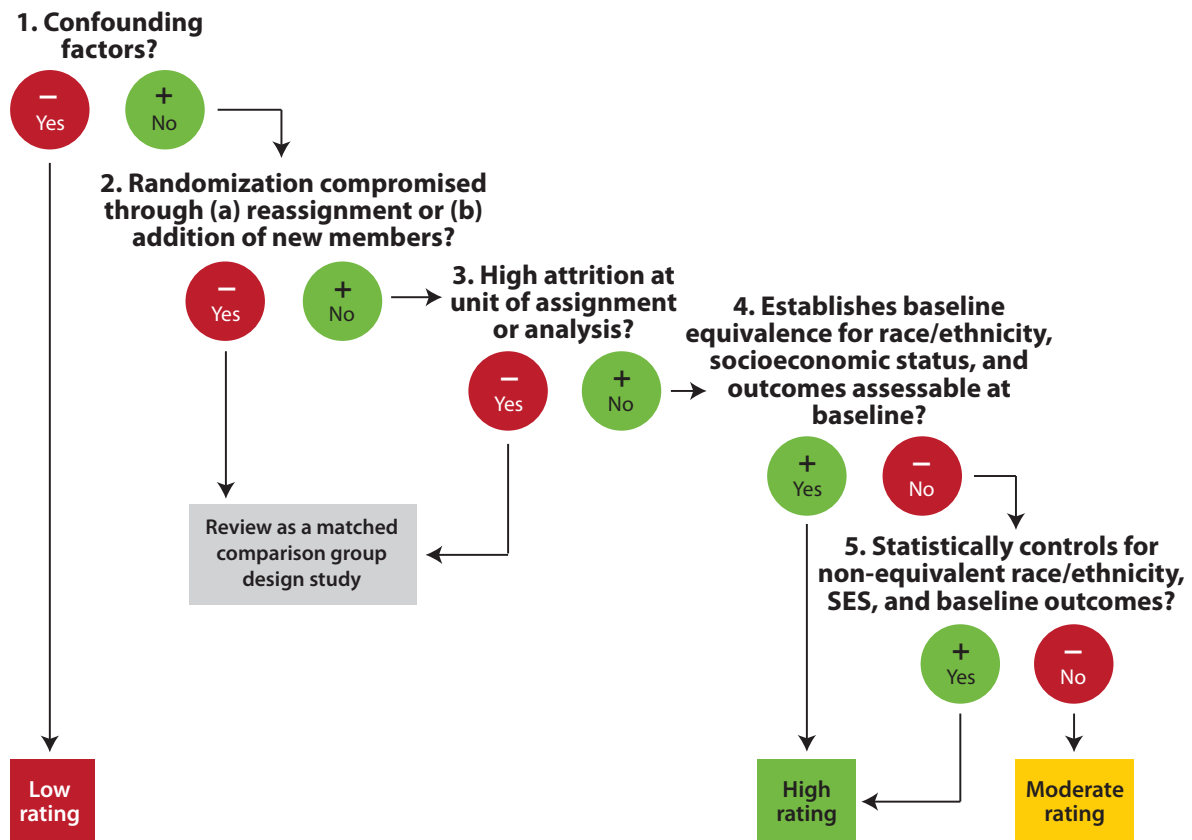


Home Visiting Evidence of Effectiveness Standards for Random Assignment Studies

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Flowchart Definitions for Random Assignment Studies

Assessable at baseline: Outcomes that are assessable at baseline can be measured before the intervention begins. For example, a mother's health insurance status or a family's receipt of services can be measured at baseline. Some outcomes cannot be assessed at baseline, such as infant mortality for programs delivered during pregnancy.

Baseline equivalence: The treatment and comparison groups are similar on required variables at baseline, that is, before program services begin. For HomVEE, baseline equivalence means that any difference between the groups is not statistically significant ($\alpha = 0.05$). For more information about baseline equivalence, see http://homvee.acf.hhs.gov/HomVEE_brief_2014-50.pdf.

Confounding factors: Confounding occurs when an aspect of the study design or delivery, other than the model of interest, is associated with only the treatment or only the comparison group. This creates a difference between the treatment and comparison groups that is in addition to the intervention. It becomes impossible to isolate the impact of the intervention from the confounding study design element. For example, if a single home visitor administers all of the intervention services but none of the comparison services, it is impossible to distinguish the effectiveness of that home visitor from the effectiveness of the intervention. Confounding factors may also arise from systematic differences in the way data are collected for the treatment group versus the comparison group.

High attrition: Attrition is the loss of sample members from the study. Attrition typically occurs if: (1) some sample members refuse to participate; (2) researchers are unable to locate some sample members; or (3) researchers exclude originally assigned sample members from the study (for any reason). High attrition occurs when too large a portion of the original sample is not included in the analysis. This can be a problem in a random assignment study if the people remaining in the groups are no longer equivalent, on average. For more information about HomVEE’s attrition standards, see http://homvee.acf.hhs.gov/HomVEE-Attrition-White_Paper-7-2015.pdf and http://homvee.acf.hhs.gov/HomVEE_brief_2014-49.pdf.

Reassignment: Units of assignment are analyzed in different groups than the ones to which they were randomly assigned. For example, a woman was randomly assigned to the comparison group but was analyzed as part of the treatment group.

Socioeconomic status: HomVEE assesses the baseline equivalence of socioeconomic status. The review prefers specific economic well-being measures – income, earnings, or poverty levels according to federal thresholds. HomVEE also accepts mean-tested assistance, maternal education, and employment of at least one member in the household if at least two such alternative measures of socioeconomic status are provided. In contexts outside of the United States, other measures of economic well-being will be considered.

Statistically controls: The analysis controls for specified variables in statistical analyses, for example by including them as covariates in a regression analysis.

Unit of analysis: The unit level at which impacts are analyzed. For example, for “birth weight” the unit of analysis is the infant, while for “percentage of families in which a household member was employed,” the unit of analysis is the family.

Unit of assignment: The units assigned to the treatment or comparison conditions. In a clustered study design, these can be different from the unit of analysis.
