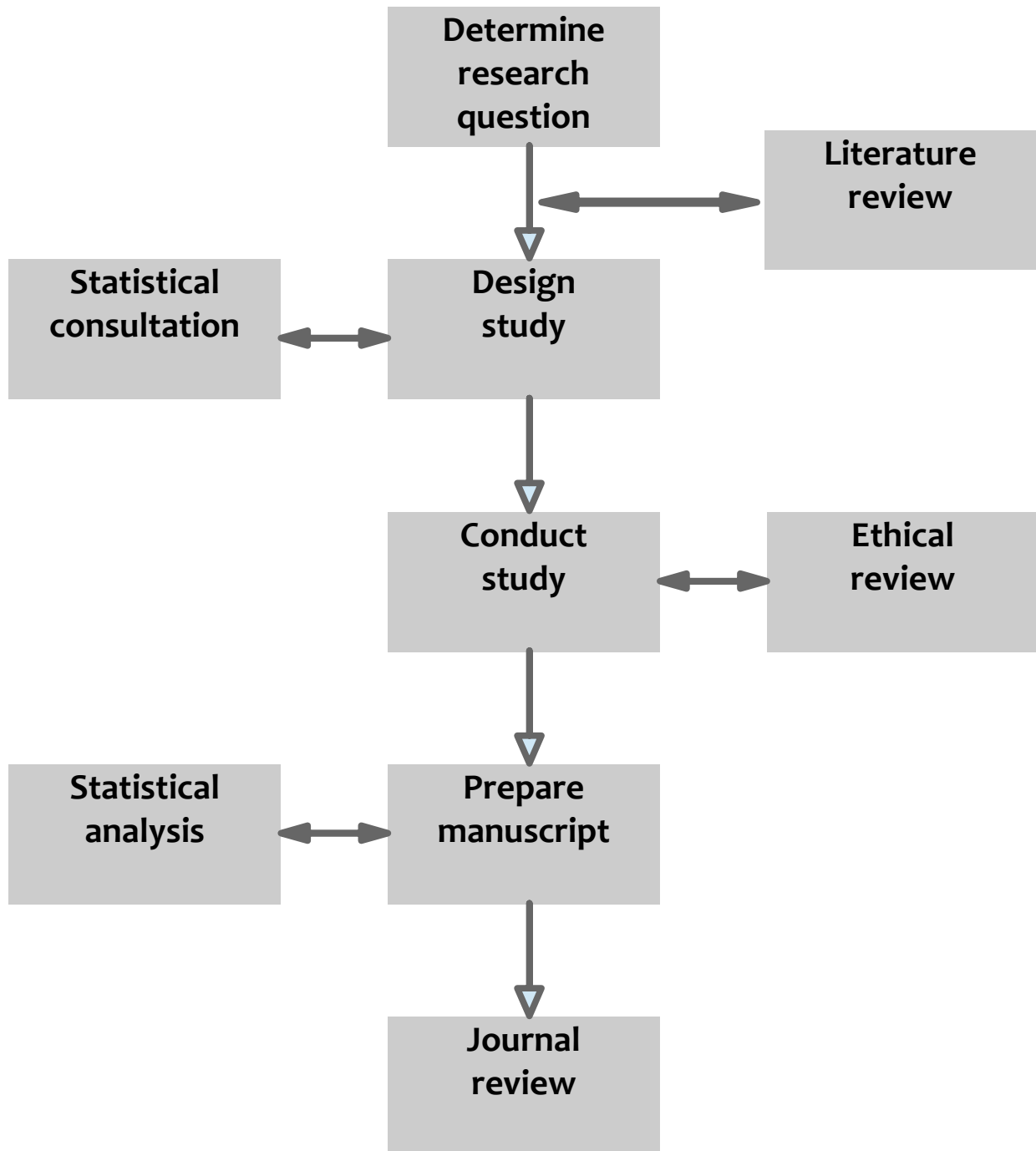


Research Process Overview



Research Process "Cheat Sheet"

Determine research question / review the literature

- You can start out with general ideas, but your end goal should be a specific question or hypothesis. Here is a generalized hypothesis for an effectiveness study: “**Intervention A** (e.g., weekend intensive psychodrama using techniques 1,2,3) **improves Outcome B** (e.g., reduced PTSD symptoms) **when provided to Population C** (e.g., adult female sexual abuse survivors).”
- Review existing research and studies done in this area: mostly peer-reviewed articles in scientific journals. Most books, websites and mass media articles are not considered a scientific source. Older than ten years is outdated unless you cite classics. You can search the scientific literature for free (e.g., at <http://www.ncbi.nlm.nih.gov/>). Access to peer reviewed scientific journals usually requires a subscription. Universities have access to many of them, so if you or your colleagues have an university ID and email address you can obtain copies of articles from the major journals. You can access some free articles from scholar.google.com. If you find an interesting abstract, you can always email the corresponding author for a copy.
- If you feel overwhelmed or clueless, chase down a colleague or friend who has a Ph.D.

Design study / consult a statistician

- Are you working with groups or individuals? How large a sample you need to give your statements a statistical power?
- Specify research population (inclusion/exclusion criteria, e.g., demographic, co-occurring disorders)
- Clarify what your technique means operationally. How can you prove that you delivered the intervention completely and correctly (e.g., audiotape or videotape evaluated by independent rater, clinician self-report, participant report)?
- Choose a meaningful and measurable outcome. If you wanted to measure the increase of spontaneity over ten sessions, how would we know it increased – did you measure heartbeat? Do you have a standardized checklist to measure spontaneity? Do you use a self-report questionnaire? Two different measurement strategies will be more persuasive, unless your outcome is objective, such as a reduction in stress hormone levels.
- Choose measuring points in time and define the expected improvement.
- Who do you compare to - no treatment group? cognitive-behavioral therapy-group? psychoeducation? Wait list? No-treatment, placebo and/or psychoeducation groups may be deemed unethical unless they are equivalent to the current standard of care.
- How do you select participants and divide them into groups? Both random selection and random assignment are less random than they sound. If you have never conducted a randomized trial, make sure to consult a statistician. Don't use people who dropped out as a comparison group.
- How will adverse events be handled? What are crisis care options for participants?

Conduct study

- Negotiate with facility where research will be conducted.
- Obtain ethical review and approval from an "Institutional Review Board" affiliated with or retained by the facility where the study will be performed. The IRB requires an application, a copy of the study protocol, and a copy of the informed consent form that participants will

need to understand and agree to. The IRB assures that potential harm is minimized and benefits outweigh any foreseeable harm.

- Recruit, screen, and enroll participants.
- Administer pre-intervention assessment.
- Deliver intervention.
- Measure post-intervention outcomes.

Prepare manuscript / consult with the statistician

- Enter assessment data.
- Analyze outcomes.
- Expand literature review as appropriate.
- Draft manuscript; obtain colleague comments; revise.

Journal review

- Are conclusions legitimate?
- Was the study properly and ethically conducted?
- Are findings clinically significant?
- Are findings statistically significant?
- Does this manuscript make an important contribution?
- Is it appropriate for the journal?

Major types of published papers on psychotherapy include qualitative (#1, 2, 3) and quantitative (#4,5,6) designs:

1. Descriptive: presents methods (e.g., how to implement psychodrama in a locked or application of method to particular population. Does not include evidence on effectiveness.
2. Case history: describes the use and outcome of psychodrama with a single client for a particular problem. It is illustrative, but impossible to generalize and subjective. It is impossible to prove causal connections with a single case, unless you use case-control design (ABAB design), which is a special, controlled subtype with an intricate design.
3. Case series: describes use and outcome of psychodrama for a group of clients with a similar problem. More solid than case history, but still fairly weak in terms of evidence.
4. Correlational studies: quiz people about a connection between different variables, such as participation in psychodrama groups and later quality of life.
5. Quasi-experiment: compares quantitative measures of change following psychodrama treatment for a group of clients with change (or lack of change) for a similar group that received no treatment over the same time period.
6. "True" experiment a/k/a effectiveness study: the "gold standard" for research showing that psychodrama works, it compares psychodrama with a "control" or comparison condition, usually either (a) no treatment/wait list or (b) another treatment already in use (such as cognitive-behavioral therapy or analytic therapy).

While designs 1-5 may be interesting, inspiring and suggestive, they lack the rigor and persuasiveness of effectiveness studies (#6). Consequently, papers that summarize the current state of the art such as review papers and meta-analyses (which analyze the combined findings from multiple studies of the same question) generally take into consideration only the results of effectiveness studies.

Just as a reminder, a scientific article has usually the following parts:

- **Abstract** – a brief summary of the rationale, methods, findings, and conclusions of the research
- **Introduction to the theory**, background of previous research, rationale for this study
- **Methods**, including number, length, and content of psychodrama (and control) sessions; how outcomes are measured; how the sample size (number of participants) was determined; how participants are randomized; how the proper delivery of the interventions is assured; how the outcomes will be analyzed
- **Results** – characteristics of study participants; participant flow (number contacted, enrolled, received treatment, followed up); outcomes.
- **Discussion** – brief summary of main findings; analysis of the results in comparison with what was hypothesized; comparison of findings with other relevant research literature and theory; limitations of the study.
- **Conclusion** – Brief summary of main findings and implications for the field and for future research.