

## Pre-Submission Checklist

Many survey studies do not advance to distribution or publication due to inadequate rigor in study methodology. The purpose of this checklist is to provide guidance and highlight key principles of survey designs to help active SOAP members who wish to undertake survey research maximize the success of the endeavor.

1. **Before you start.** The SOAP Research Committee recommends all survey requestors review this excellent article: Story DA, Tait AR. Survey Research. *Anesthesiology*. 2019 Feb;130(2):192-202. Free access via this link: <https://pubs.asahq.org/anesthesiology/article/130/2/192/20077/Survey-Research>
  
2. **Eligibility.** SOAP will only distribute surveys requested by active members. Surveys must be pertinent to the field of obstetric anesthesia and align with SOAP's missions and goals. Please note: a \$250 USD fee applies per survey, payable upon approval of the Research Committee.
  - I am an active member of SOAP and this survey is pertinent to SOAP members.
  
3. **Consider the research question and skillset of your team.** Is the research question clear, compelling and important for SOAP members? Do you have someone on your research team who is knowledgeable in survey methodology and the research area being studied? Consider consulting a local research lead or collaborating with an investigator who has experience in survey methodology and publishing survey studies.
  - I have a clear and compelling research question and I have someone on my team who has experience in survey methodology and publishing survey research.
  
4. **Consider the methodology.** Survey studies may face challenges in terms of the design, sampling, and statistical analysis methods, which can affect the quality and generalizability of the results. Many journals have strict criteria and high standards for accepting survey studies for publication. Is survey methodology the best design to answer the research question?
  - I believe survey is the best design to answer my research question.
  - I have a clear analysis plan
  
5. **Defining the target population.** A common issue that leads to bias occurs when surveys intended for all obstetric anesthesiologists (the target population) are sent to only SOAP members via the SOAP listserv (the sampling frame), thereby excluding obstetric anesthesiologists who are not SOAP members. This results in coverage bias. Consider if the survey is suitable for distribution to all SOAP members. If not, consider alternative avenue for survey distribution such as the American Society of Anesthesiologists. SOAP can also help set up a poll via social media or on the newly established SOAP Community Posts. This can be appropriate in situations where you want to gather public opinion quickly and easily on a particular topic or issue. Social media SOAP Community polls are useful for conducting informal surveys or gauging the sentiment of your audience on a particular issue. They can also be useful to gather data to plan a formal research study. However, it is important to keep in mind that these polls have limitations, including a limited number of response options, a relatively small sample size, and reaching only respondents on the platform, which may affect the validity and generalizability of the results.

- I have considered my study question, my target population and other potential avenues for survey distribution. Surveying the SOAP membership is most suitable.

**6. Minimize sampling bias:** Another common issue which leads to bias occurs when respondents are sent survey who are not representative of the target population and cannot answer the questions accurately (e.g. Fellows responding to questions intended for Program Directors about institutional epidural rates). Also, multiple members from the same institution may respond, leading to over-representation of data from a single institution. This results in sampling bias. Consider adding a separate question to allow you to separate the demographics of the respondents. If not specifically requested, all surveys will be distributed to the entire membership including students, fellows, CRNAs, anesthesiologists, obstetric anesthesiologists, and allied health professionals, within and outside of the United States.

- I can clearly define the target population and have considered the option of narrowing the distribution of the survey to certain attributes to minimize sampling bias (e.g. Fellowship Directors or Fellows only)

**7. Consider internal validity.** It is essential to ensure that the survey questions are designed in a way to ensure precision and response accuracy. Piloting the survey using a small sample that is representative of the target population is strongly recommended. Have you tested the survey link? (Please note: the survey requestor must set up their own survey tool or platform (e.g. Survey Monkey, REDcap or Qualtrics). Are there already validated scales for questions you are asking? Can the survey be completed within 5 to 10 minutes? Typically, the time needed to answer one open-ended question is roughly equivalent to responding to 3 to 5 closed-ended questions. As survey length increases, non-response bias and abandonment rate increase. Have you designed the survey to minimize participants skipping a question by accident or provide participant a way to not answer a question if they honestly do not know the answer to the question without being forced to answer anyway? Consider an optional free text comment section at the end of the survey for participants to enter any potential issues encountered during survey submission.

- I have piloted the survey, tested the link to the survey and carefully reviewed all the survey questions.
- I have set up my own survey tool or platform to host the survey.

**8. Consider external validity.** Publishing survey results can be challenging due to the difficulty in obtaining a high response rate, which is often a requirement for publication in many leading journals. Low response rates (<30-40%) can result in biased results, as it is impossible to determine if the respondents are significantly different from those who did not participate. This can raise doubts about the accuracy and reliability of any conclusions drawn from the survey, which may affect its validity in representing the intended study population.

SOAP will send the survey link out once, with 2 follow-up email reminders. SOAP can inform the requestor the number of individuals that accessed the link, as well as the total number of individuals invited to participate (i.e. the denominator used to calculate response rate). However, SOAP does not track responses, and therefore, cannot provide information on the number of responders vs. non-responders (i.e. only the survey host has access to the numerator used to calculate the response rate).

- I understand that the survey data obtained may be difficult to publish in leading journals.
- I have a plan to determine the response rate.

