

## EDITORIAL



## Survey research in perinatal medicine

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The *Journal of Perinatology* publishes survey research, often based on data obtained from polling members of the American Academy of Pediatrics Section of Neonatal Perinatal Medicine (SoNPM). In this issue, Lewis and colleagues review the use of surveys in SoNPM, examine best practice survey design principles, and describe the benefits of online surveys and techniques that optimize survey design in the digital medium [1]. They describe how surveys can provide important data, especially when trying to understand more nuanced information with respect to the care of newborns and infants. They also note the importance of rigorous survey design and reporting results. We would like to provide additional points to consider for designing high quality survey studies: sample size versus sample characteristics, data privacy, and reporting guidelines and describe how authors should prepare surveys for publication in the *Journal of Perinatology*.

One of the fundamental assumptions of most statistical tests is that we have a random sample from the target population. One common misconception is that a larger sample size will necessarily provide results with less bias. However, who responds (or does not respond) to a survey is critical. Simply increasing the sample size does not guarantee that the respondents are representative of the target population. A classic example of this is the prediction from *The Literary Digest* of the 1936 US Presidential election [2]. *The Literary Digest* had a history of correctly predicting who would win the US presidential election for 16 years. With data from over 2.3 million surveys, they predicted that Alf Landon would beat Franklin Roosevelt in a landslide; however, Roosevelt won with 61% of the votes. Subsequent explanations for this error included sampling bias as well as a non-response bias [2]. Hence, it is important to have a

well-defined target population and summarize any available information on non-responders in order to assess possible non-response bias. For instance, when surveying current practice strategies, one would consider not only members of SoNPM but also members of non-university based neonatal practices to best understand practice patterns.

With recent advances in technology that include online surveys, data collection and recording can be automatic and yield larger amounts of data with little effort. Clinicians may be familiar with HIPAA laws to protect patient health information but may be less familiar with best practices for protecting self-reported survey data. When using online survey tools, understanding who owns the collected data and how the third party can use the data is important for the research team to understand and communicate to potential participants [3]. An institution may have online survey tools, such as Research Electronic Data Capture [4, 5] (REDCap) and Qualtrics [6] (Qualtrics, Provo, UT), that have been vetted and may have agreements in place that specifies who can use the data and ensures the data is protected. Selected key terms and responsibilities are presented in Table 1. If a researcher decides to use software and tools that have not been vetted by an individual's institution, it is their responsibility to understand the User Agreement and ensure they are following best research practices [7] and institutional policies with respect to collecting and storing data.

Finally, we want to ensure accurate communication of research findings. Reporting guidelines are a useful tool for researchers and promote consistent and complete sharing of study results. The EQUATOR Network started in 2006 with the mission "to achieve accurate, complete, and transparent reporting of all health research studies to support research reproducibility and usefulness" [8]. Many publishers and journals instruct authors to use the Equator Network Guidelines for many study designs such as randomized control trials (CONSORT [9, 10]), observational studies (STROBE [11, 12]), and surveys (CROSS [13]). Following the

**Table 1.** Terms of service researchers should understand before using web-based online survey collection tools not vetted by their institution (adapted from University of Maryland Research, Online Survey Research Guide [3]).

Terms of service (ToS)	Researcher responsibilities
Data ownership	Researchers should have a complete understanding of who owns and can use the data they have collected using web-based survey companies.
Notification of Changes to ToS and Privacy Policies	Researchers should understand the terms of service and privacy policies at all times when using web-based survey companies, especially if not vetted by their institution.
Data sharing and sales policy	Researchers are responsible for understanding and communicating how the data may be shared or even sold to other entities.
Account Termination	Many websites have both free and subscription based options. The researcher should be aware of how and when an account can be terminated as termination could result in loss of data.
Certifications	Web-based survey companies may have certifications related to data privacy and protection. Some entities, such as the European Union and Switzerland, require certain certifications.
State Law	Survey companies operate in different states and therefore are responsible for following different state laws. The researcher should be aware of which state laws the company adheres to.

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suggestions for designing high quality surveys presented by Lewis et al., along with using reporting guidelines will facilitate useful communication of important topics used in neonatal perinatal medicine survey research.

Authors publishing survey research in the Journal of Perinatology are encouraged to submit their work as a Brief Communication. Brief Communications are subject to editorial review and all relevant editorial policies. They are fully indexed in PubMed and other online services. When choosing this format for survey research, please include your survey instrument and raw data as Supplemental Data online.

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## AUTHOR CONTRIBUTIONS

SC and PGG both contributed to manuscript design and composition. Both authors reviewed and agreed upon final submission.

## COMPETING INTERESTS

SC has declared no conflicts of interest. PGG is Editor-in-Chief of the Journal of Perinatology.