

# Research Minute

## Surveys for Research

Issue 10

Sandra Burge, Ph.D.



In medical research, we often study the human experience as it relates to health and illness. Much of this experience is not “measurable” in a clear-cut way; it’s not objective like lab values or BMI. Instead, many concepts are abstract or subjective: pain, functioning, symptoms, depression, attitudes, adherence, satisfaction, trust, motivation. Surveys can be very useful “instruments” for addressing these concepts. Below are 12 tips for your survey tools.

### 1. Start with a clear research question.

Your research question should address the association between 2 Phenomena. Example: Is Phenomenon 1 a risk factor for Phenomenon 2? Does Phenom 1 intervention improve Phenom 2 outcome? Is Phenom 1 correlated with Phenom 2? When you decide which concepts (phenomena) are important, you can begin the search for the right tool to assess those concepts.

### 2. Do not re-invent the wheel.

*Never! Never! Never!* Never create your own survey when one already exists. Many survey tools are already out there, ready for you. Read the literature on your topic. Study the Methods Section in journal articles and find the questions that other researchers have used. Choose survey tools with solid measures of reliability and validity.

### 3. Use multiple questions for complex concepts.

Single item measurements are less reliable than multiple-item measures. And, multiple items give you richer information and composite scores. Consider our screening tool for depression, PHQ-9 (9 items). If we asked only about sadness, we may miss people who have other symptoms of depression.

### 4. Keep it short & simple.

Limit the number of questions. Questions should be 20 words or less, 3 commas or less. Use simple language. Unless you are surveying doctors, avoid medical terms and acronyms.

### 5. Avoid 2-in-1 questions.

- *HPV vaccines are appropriate for teenage boys and girls.*

How do you answer if you think it’s OK for girls but not boys?

- *STFM is the most useful conference I attend each year.*

What if you don’t go every year?

### 6. Avoid double-negatives.

If your question is worded in the negative, and some response options are also negative, respondents may puzzle about how to respond.

- *Most of my patients are not adherent with their medicines.*

Do I respond, “yes, my patients are not adherent,” or “no, my patients are not adherent”?

### 7. Avoid leading questions.

Do this:

- *On average, how many hours of TV do your children watch in a day?*

Not this:

- *Do you limit your children’s television viewing to 2 hours a day?*

### 8. Avoid ambiguous words.

Time related words—like *frequently, sometimes, rarely*—are hard to interpret. Be more specific:

- *Every day, several times a week,...*

Other words have varying definitions:

- *family, household, abuse, violence.*

Even simple medical terminology has a different meaning to a lay public:

- *“acute” may be interpreted as “severe”*
- *“complaint” means “whining”*
- *“negative findings” mean “bad news”*

### 9. Provide a time frame if it helps.

The PHQ-9 provides a time frame of 2 weeks:

- *Over the last 2 weeks, how often have you been bothered by :*
  - *Little interest or pleasure ...*
  - *Feeling down, depressed...*

### 10. Avoid response sets.

If you include a set of questions, and the answer to all of them is “true,” your respondents will figure it out quickly. A good survey tool has varying response options.

### 11. When using rating scales,

responses should have 5 or 7 options. Keep the number and sequence of response options consistent throughout the survey. For example, if you are using 5 response options that range from “strongly disagree” to “strongly agree,” format all your survey items so that “strongly agree” is always on the same side.

### 12. Ask for information that can be easily recalled.

If your respondents get stuck, or have to look something up, or have to calculate something, they are unlikely to finish your survey. These are difficult:

- *In your practice, how many patients have diabetes?*
- *How many times did you visit Starbuck’s last year?*
- *What was your taxable income in 2016?*