Self-report Response Bias: Learning How to Live with Its Diagnosis in Chaplaincy Research

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Chaplaincy research is dominated by self-report data collected directly from research subjects or participants. Self-report response bias is the research measurement inaccuracy that originates with the respondent. A review of research published in The Journal of Pastoral Care & Counseling (1998-2008) found that all but one of thirty-eight research articles used self-report data. Of this total, less than half acknowledged methodological limitations, and only two acknowledged the potential impact of self-report response bias.

This article focuses on seven categories of self-report response bias that may impact chaplaincy research: social desirability, acquiescence, leniency or harshness, critical event or recency, halo effect, extreme response style and midpoint response style. Although these biases have the potential to impact self-report data, the data themselves are not inherently flawed. This discussion offers recommendations for addressing self-report response bias during the research process. It also suggests that acknowledging and understanding the impact of self-report response bias may result in more rigorous research as well as more creative and informed interpretation of results.

All hospital employees—including hospital chaplains—are asked to complete a survey about their institution’s organizational culture. The survey instrument is piloted and its methodological strengths, validity and reliability, are established. A plan for distribution and administration of the surveys is clearly developed and communicated to employees. Additional break time is allotted so employees can complete the forms that day. Break rooms are organized and user-friendly to facilitate a more conducive environment for survey completion. Surveys are provided to employees on a Monday morning. They are asked to complete them that day and return them to Human Resources. Monday morning, before work, a hospital chaplain opens up the local paper to this headline:

Local Hospital to Cut Workforce by 15%

Details of Cuts to Be Announced Later this Week

Assume for a moment that this is not a fictitious event, but a real situation. The chaplain walks into the break room where this headline is the main topic of conversation. What would be the impact of this news on hospital employees’ assessment of organization culture? In essence, nothing has changed except one most critical element: will respondents, who are being asked to report perceptions of the hospital’s organizational culture, be biased by the headlines and the anxiety that was absent a short twelve hours before? If so, how?

What are self-report data?

Self-report data are data collected directly from the research subjects or participants. The emphasis is on those from whom the data are collected, as well as the direct means by which the
data are secured. Self-report data takes multiple and varied forms. It may include data collected from face-to-face interviews with chaplain interns about their CPE experience or data collected from patients using established, validated survey instruments to measure satisfaction with pastoral care services. With self-report data the individuals providing the information are the study participants providing their perceptions about a topic of interest. Regardless of the collection method, e.g., survey, interview, observational narratives, cases, the expectation is that the data represent an accurate, unbiased reflection of what is being measured. Self-report data are frequently used in social behavioral research, the broad research umbrella that includes chaplaincy.

This article addresses self-report data using a three-pronged approach. First, it looks at how extensively self-report data are used by chaplaincy research through a review of ten years of research published in The Journal of Pastoral Care & Counseling (JPCC). This overview also highlights the acknowledgement of the strengths and limitations of self-report data within the context of chaplaincy research. Second, it focuses on several response biases commonly associated with self-report data that may impact chaplaincy research. Finally, it concludes with some recommendations for both researchers and consumers of research in the area of chaplaincy.

**Literature review on self-report data and chaplaincy research**

Chaplaincy research is dominated by self-report data. A review of the most recent ten-year period (1999-2008) found that JPCC published thirty-eight research articles. All but one presented data collected using one or more self-report methods.

A closer look provides more details on the prominence of self-report data in chaplaincy research. Three major categories of self-report data served as the basis for the studies in these publications.

- Two-thirds (25 articles) described data gathering as exclusively self-reported. These articles used a single self-report method in data collection, e.g., survey, questionnaire, interview, focus group.
- Five of the articles described the use of readily available, previously developed scales being completed by subjects. It is unclear whether this suggests that the instruments used had not previously been evaluated for their measurement quality (most frequently conveyed by descriptions of measurement validity and reliability) or whether the omission of this information was a result of journal space restrictions.
- A third group (7 articles) described use of some two or more self-report methods. The most frequently used combination coupled interviews with self-report measurement scales.

Approximately half (18) of the articles acknowledged limitations to the research rigor. The most frequently identified research limitations included small sample size and use of convenient samples, which in turn limit generalizability of results. Only two of the articles acknowledged limitations related to the use of self-report data.

During this same time period, several articles addressed the status of research in chaplaincy but with limited acknowledgement of self-report response bias. Three articles offered support for the promotion of chaplaincy research and provided suggestions for conducting chaplaincy research.\(^1\) Both O’Connor et al. and Flannelly et al. emphasized specific deficiencies in research design.\(^2\) O’Connor et al. also noted the lack of acknowledgement of researcher bias. Flannelly et al. suggested that chaplaincy research did not reflect a sophisticated knowledge of statistical sampling or statistical analysis. Without detracting from the merits of these this article seeks to fill the void by focusing solely on self-report response bias within chaplaincy research.
Self-report data strengths and limitations

As previously mentioned, chaplaincy research is dominated by self-report data for good reason. Data gathered through self-report methods are strengthened by direct rather than third-party observed responses to study questions. Additionally, some research constructs, such as attitudes and beliefs, cannot be observed. Self-report data also provide a richness that personalizes data and facilitates elaboration of responses. Finally, self-report data are relatively easy to collect, which is a significant strength when access to study participants is limited.

Even though a major strength of self-report data is that it comes directly from the study participant, this does not rule out the potential impact of the respondent as one source of measurement error. Such error surfaces from three sources: the respondent; the method or instrument of data collection, e.g., interview, survey; and contextual factors, e.g., setting, time pressures. Although all three warrant the attention of both researchers and consumers of research, this discussion is limited to measurement error that originates with the respondent. This is response bias.

Self-report response bias

Historically, research methodology describes a quality measurement as unbiased, valid and reliable. Response bias, which originates with the respondent, affects measurement quality by introducing inaccuracy or lack of precision into the research. Respondents may be unwilling or unable to respond accurately for countless reasons. They may be informed but reluctant. They may be tired or feel time pressure. They may strive for consistency in their responses rather than consider individual questions. They may have concerns about how their response will affect others’ opinions of them. This discussion focuses on seven types of self-report response bias. While this list is not exhaustive, it does highlight several that may impact research in the area of chaplaincy.

Social desirability

Social desirability is “the tendency for people to present themselves (or their attitudes) favorably according to the current cultural norms.” Thus, individuals’ responses are influenced by their perception of situational norms and expectations.

A hospital chaplain interviews patients and their families about how frequently they pray. Even though some may not see prayer as an important part of their lives, they may overstate the amount they pray because they think the chaplain sees this as very important. Similarly, patients and their families may skew their responses to what they see as controversial “hot button” issues based on their projections of the norms of those with whom they are interacting.

Acquiescence

Acquiescence, also referred to as yea-saying, is “the tendency to agree with items regardless of their content.” Although there is no research consensus on when acquiescence occurs, several explanations have been proposed. One explanation interprets acquiescence as a personality trait and sees it as an outgrowth of “impulsive acceptance.” Another view sees acquiescence as related to “uncritical agreement” that is associated with the respondent’s logical consistency of attitudes, social taste and verbal ability. Narayan and Krosnick support the latter, noting a negative correlation between education and acquiescence. A third view, dominant in sociology and survey research literature, interprets acquiescence as a reflection of the relatively lower social status of respondents compared to the higher social status of interviewers or researchers posing the questions.

Research also finds acquiescence related to the content of the question posed as well as to situational factors in the data collection process. Individuals may be more inclined to respond as yea-sayers if the items or questions posed are ambiguous, neutral in desirability or vague.
Respondents also may be more prone to acquiescence if situational factors, such as time pressures and other distractions increase the cognitive demands placed on them.\textsuperscript{13} A patient is asked on a patient satisfaction survey to evaluate the hospital’s chaplaincy services (along with other hospital services that are provided). The patient really has not given this service much thought and only briefly interacted with a chaplain but feels the need to complete the survey before discharge. The patient, who just wants to go home, assigns the pastoral care service a positive rating presuming that others (the hospital staff that introduced this patient to the chaplain) think it is probably satisfactory.

**Leniency or harshness**
Individuals systematically may respond more negatively or positively, regardless of the question posed.\textsuperscript{14} This response tendency is specific and consistent with the respondent.

Two professional chaplains, with the same job description and job responsibilities, are asked to assess their overall job satisfaction. One chaplain actually is quite pleased with current job responsibilities but consistently rates job satisfaction, as well as other work attitudes, as only moderately favorable. The second chaplain’s rating of job satisfaction is consistently favorable, even though the chaplain’s general enthusiasm for the position reflects dissatisfaction.

**Critical event and recency**
Both critical event and recency response biases are related to respondents’ recall. Critical event response bias occurs when a dramatic event is given a greater weight in the evaluation than routinely occurring events. Recency response bias occurs when events or information presented more recently are weighed more heavily by the respondent than events or information presented in the more distant past.\textsuperscript{15} The example at the introduction of this article is an example of critical event or recency. The uncertainty created by the news article likely would override employees’ previously positive perceptions of the organizational culture.

**Halo effect**
Halo effect occurs when a participant’s response to a previous question serves as a trigger for determining responses to subsequent questions.\textsuperscript{16} Although halo effect generally is thought to suggest a positive bias in responses, it may be either positive or negative. The central issue is that an individual’s previously made assessment determines the pattern of later responses.

A hospital chaplain is asked to provide perceptions of the hospital’s electronic medical record system. In the past, the chaplain responded favorably to a question about the convenience of the central location of computers used for charting. Even though the chaplain has had difficulties with this new system and thinks that overall it is sometimes difficult to use, the chaplain will respond favorably to other questions because of the previous assessment of computer location convenience.

**Extreme response style**
Extreme response style is the “tendency to endorse the most extreme response categories regardless of the item content.”\textsuperscript{17} When provided a survey with a 5-point (Likert) scale, a particular patient will always respond using one of the two end points, either a “1” or a “5,” even though the patient’s view of some items is not in the extreme.

**Midpoint response style**
Unlike an extreme response style, a midpoint response style reflects the “tendency to use the middle scale category (or most moderate response alternative) regardless of the content.”\textsuperscript{18} When provided with the same 5-point (Likert) scale, a particular patient repeatedly responds with the neutral midpoint alternative, “3,” even though the patient’s view of many items is not neutral.
Recognition, mitigation and avoidance

Perhaps one signal of the maturity of research in a discipline area is recognition of its limitations accompanied by concerted efforts to improve its methodological rigor. Within chaplaincy research, attention has previously focused on the methodological limits in sampling strategies, sample sizes, research design and statistical analysis. This discussion has added another methodological issue, self-report response bias. While each of these concerns offers opportunities for research methodological improvements, improvements are constrained by the context and constructs in chaplaincy research. In many cases, changes that could result in a greater methodological rigor, e.g., a larger sample size, more elegant statistical analysis, must be weighed against factors that may inadvertently weaken other design dimensions and complicate interpretation.

Even with the limitations highlighted in this article, self-report data are not inherently flawed. In chaplaincy research, self-report data often are the most effective—and thus the most appropriate—way to glean respondents’ assessments of substantive issues. Self-report response bias does introduce variation into this research but its magnitude is not known. While it is unrealistic to think that response bias may be avoided completely, researchers may begin to address this problem by addressing it prior to, during, and after data collection. Increased sensitivity to the potential impact of response bias by consumers of chaplaincy research leads to increased caution in interpretation of study results. For both groups, thoughtful consideration of the potential impact of self-report bias compliments consideration of other research methodological dimensions, e.g., design, sampling strategy, sample size and response rate, statistical analysis.

The first step is acknowledgement of the potential for self-report biases even before collecting data. Researchers and consumers of research might begin by asking a few simple questions about their study.

• Who are the respondents? Are there characteristics associated with them that may make them prone to response bias? A significant perceived status difference between an interviewer and an interviewee, e.g., CPE supervisors interviewing CPE interns, could result in responses colored by yea saying or social desirability. Consider to what extent these status differences do or do not relate to the research question.

• What methods are being used to collect data? Face-to-face interviews may introduce the potential for social desirability. Vaguely worded questions and limited response alternatives may lead to patterned responses, e.g., extreme, midpoint, or consistency biases, halo effect. Assuming face-to-face interviews are the most feasible option, to what extent can the interview be tightly scripted, the interviewer rigorously trained? Would basic demographic information on the interview dyads, including the ages, genders and ethnicity of interviewer and interviewee, improve interpretation? Are alternatives to face-to-face interviews, e.g., mail, online, feasible and/or potentially effective? Should scaling be adjusted to add a midpoint (if a neutral position is seen as a realistic option) or removed (if definitive responses are seen as realistic options)?

• What is the context in which data are being collected? Situations where there is little control over extraneous variables, e.g., scheduling and time pressures associated with data collection, distractions due to noise/lighting/temperature, may result in a greater tendency for response biases to influence the results. Are differences in patient satisfaction surveys—immediate predischarge compared to one week or one month postdischarge? Prevention is not a realistic option but recognition is warranted and mitigation possible. For chaplaincy researchers at the planning stage, simple efforts such as providing a uniform and controlled time and environment for data collection reduces potential biases. Serious consideration of who is conducting the interview or focus group, or who is distributing surveys may help. Revising instrument instructions measurement scales and wording to eliminate ambiguity reduces the
potential for response biases. If concern about specific response biases still exists, items may be included in the survey or interview to offset these tendencies.

Sensitivity to the potential interactions between interviewer and interviewee, researcher and respondent, leads to subtle changes in data collection activities. Consistent interviewer/researcher training and monitoring addresses potential sources of bias before they surface. The use of neutral parties to conduct interviews or introduce surveys may reduce the magnitude of self-report response bias, but even with neutral parties, respondents still may want to cast themselves in a favorable light, second guess the desired outcome or be affected by a dramatic recent event.

Even before data collection, researchers can acknowledge the potential for self-report response bias. Items may be included in a survey or interview in an attempt to capture some of these biases. For example, the Marlowe-Crowne Social Desirability Scale (or versions of this scale validated for specific audiences) may be included in a survey to “tease out” respondents’ tendency toward social desirability bias. A recent study of chaplaincy interns included the measurement of social desirability to detect its influence on study results.

Mixed methods research, sometimes referred to as data triangulation, may be applicable within the context of chaplaincy research. Data are collected using several methods, yielding results that differ on key dimensions, e.g., qualitative/quantitative, primary/secondary. These data may be used to strengthen analysis and confirm confidence in the self-report data. For example, an employee satisfaction survey may reflect positively on the organization but the hospital’s personnel records may reflect lower retention, increased recruitment and higher absenteeism. This lack of congruency may reflect any number of response biases, or it may reflect factors within the professional or local labor market that outweigh employee attitudes. Without consideration of this additional data, many of these alternative explanations would be overlooked.

Although surveys, interviews and focus groups are qualitative research methodologies, the results from these techniques may be quantified to reflect response distribution, range and frequencies. After data collection, statistical procedures are used to adjust for response bias. An in-depth discussion of these techniques, which vary in complexity from partial correlation techniques to sophisticated procedures, is beyond the scope of this article. However, a number of review articles and software products provide options for addressing response biases.

For consumers of chaplaincy research, recognition of potential self-report bias in research results promotes more astute understanding, interpretation and generalization of findings. All studies suggesting that patient satisfaction is promoted by a particular action by a hospital chaplain are not the same. A uniform pattern of favorable responses may signal overall favorability. Conversely, it may signal patients who are eager to be discharged, patients who are concerned about how providers perceive them or patients who think that they should provide the “right” answer. Untangling which of these explanations accurately describes a particular patient group may be even more important than recognizing their level of satisfaction.

Opportunities in chaplaincy research

The intent of this discussion is twofold: to provide chaplaincy researchers and consumers of chaplaincy research with greater understanding of self-report response bias and to promote research and research interpretation that acknowledges its potential impact on study findings. Self-report response bias is of critical importance, specifically because of the predominance and appropriateness of self-report data in chaplaincy research. Although this is one of several sources of methodological weakness, it is not a fatal flaw. Acknowledging the potential for self-report bias in coloring chaplaincy research results and giving thoughtful consideration to its impact on interpretation are wise and prudent steps that will improve the development and use of research in chaplaincy.


4 Chan, “So why ask me?” 303-36.


9 Ibid.

10 Baumgartner and Steenkamp, *Response Bias*.


13 Baumgartner and Steenkamp, *Response Bias*.

14 Aaker, et al., *Marketing Research*.


18 Baumgartner and Steenkamp, *Response Bias*.

19 Chan, “So why ask me?” 303-36.


21 Kevin Flannelly and Katherine Jankowski, “Chaplaincy study of CPE students,” *ACPE Research Network Newsletter* 7, no. 3 (Spring-Summer 2009), [http://www.acpereresearch.net/Spring09.html](http://www.acpereresearch.net/Spring09.html)

22 Baumgartner and Steenkamp, *Response Bias*.