COMMENTARY

Moving AACP Curriculum Quality Survey Results from Good to Great
Lisa Meny, PharmD,a Jaime Maerten-Rivera, PhD,b Jacob P. Gettig, PharmD, MPH, Med,c Kristen L. Goliak, PharmD,d Amy H. Schwartz, PharmD,e Mary Higginbotham, MA,f Vinayak Shenoy, MPharm, PhD,g Aleda M. H. ChenPharmD, PhDh

a Ferris State University, College of Pharmacy, Grand Rapids, Michigan
b University of Buffalo, School of Pharmacy and Pharmaceutical Sciences, Buffalo, New York
c Midwestern University, College of Pharmacy, Downers Grove, Illinois
d University of Illinois Chicago, College of Pharmacy, Chicago, Illinois
e University of South Florida, Taneja College of Pharmacy, Tampa, Florida
f The Ohio State University, College of Pharmacy, Columbus, Ohio
g California Health Sciences, University College of Pharmacy, Clovis, California
h Cedarville University, School of Pharmacy, Cedarville, Ohio

Submitted December 17, 2021; accepted June 27, 2022; published March 2023.

Although the American Association of Colleges of Pharmacy (AACP) Curriculum Quality Surveys (CQS) are required for programs to distribute and utilize as part of accreditation standards, programs face challenges in survey administration and timing, interpreting data and results, and following up on action plans. Because the CQS surveys are standardized, they can allow for greater comparison among institutions, yet interpretation of the items can vary considerably. Programs have flexibility in determining samples for administration and timing of administration (ie, number of years), but some participants (such as preceptors) can suffer from survey overload if multiple institutions administer in the same year. Determining thresholds for action and providing feedback to stakeholders on improvements made based on data triangulations can be daunting. These are a few of the elements that programs must consider when determining their own approach to the AACP CQS. Thus, the purpose of this Commentary is to describe good practices for using the AACP CQS, discuss challenges associated with the surveys, and recommend how to move the utilization of the surveys from good to great.

Keywords: Curriculum Quality Survey, programmatic assessment, continuous quality improvement

INTRODUCTION

The American Association of Colleges of Pharmacy (AACP) Curriculum Quality Surveys (CQS) provide pharmacy programs with feedback from the perspective of graduating students, faculty, preceptors, and alumni to support data-driven improvements. The surveys were first released in 2007 to align with the Accreditation Council for Pharmacy Education (ACPE) Standards 2007 and were later revised to reflect Standards 2016.1 ACPE requires programs to include CQS data and corresponding analyses in accreditation self-studies and to discuss findings during on-site visits.2 To support programs, AACP annually updates the “The Principles of Good Use: AACP Curriculum Quality Perception Surveys” document (hereafter referred to as the “good use” document), which provides implementation and utilization strategies.1

The literature includes examples of how programs have used CQS data to make data-driven decisions.3-7 In a recent investigation by Meny and colleagues ACPE accredited programs were surveyed to examine the utilization patterns of the CQS, including frequency of administration, response rate, benchmarking, administration, and responsible parties. Nearly all responding programs reported that CQS data are used to make changes at their college or school (95.5%), with impacted areas ranging from curriculum (85.2%) to communication (75.0%), student services (68.2%), policy/process (61.4%), and professional development (53.4%).4

Now that CQSs are firmly embedded within program assessment across the Academy, and with a growing body of literature describing their use as standardized assessments across all institutions, there remains room for enhancement of these surveys, especially as new ACPE standards are in
development. The purpose of this Commentary is to highlight good uses of CQSs and recommend how to move them from good to great. A summary of considerations is outlined in Table 1.

### Table 1. Summary of Considerations for Moving AACP Curriculum Quality Surveys (CQS) From Good to Great

<table>
<thead>
<tr>
<th>Source</th>
<th>Definition</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| **Timing and Methodology** | How, to whom, and when to administer surveys                             | - Share planned administration timetables for programs in similar regions to administer burdens, particularly to preceptors  
- Use the Good Use^1^ document to determine approaches for sampling and administration of surveys to avoid respondent burden and representativeness  
- Goal of minimizing this error is to increase the confidence that results from the sample are sufficiently representative to generalize to the greater population |
| Coverage                   | Occurs when sampling frame does not include all of the salient features of the target population | - Minimized by using appropriate sampling techniques that consider sufficient sample size and key relevant features of the larger population that should be reflected in the sample (eg, gender, age, educational background)  
- Goal of minimizing this error is to increase the confidence that results from the sample are sufficiently representative to generalize to the greater population |
| Non-response               | Occurs when a significant number of subjects do not respond to the questionnaire and the extent to which the non-responders differ from those that did participate | - Individuals who respond to survey may differ from those who do not and may not reflect the sample that was representative of the larger populations  
- The lower the response rate, the higher the probability that respondents differ significantly from non-responders |
| Sampling                   | Potentially operating when a researcher samples only a subset of a population instead of the target population | - Minimized by using appropriate sampling techniques that consider sufficient sample size and key relevant features of the larger population that should be reflected in the sample (eg, gender, age, educational background)  
- Goal of minimizing this error is to increase the confidence that results from the sample are sufficiently representative in order to generalize to the greater population |
| **Interpreting Data and Results** | How to examine and interpret information gathered from the surveys | - Remember that CQS items assess broadly  
- Interpretation should be triangulated with other data  
- Determine appropriate benchmarks and comparator institutions |
| Measurement                | Occurs when a respondent provides an answer that is inaccurate or lacks precision to the degree that varies from the “correct” answer | - Can occur when there are potentially sensitive items that may cause desirability bias  
- Examining with other data can aid in interpretation |
| Moving to Action           | How to move the survey data and create actionable plans for continuous quality improvement | - Focus groups or town halls can assist with interpretation and understanding how respondents answered a question  
- Share best practices across the Academy on how programs are following up on CQS data |

Survey Administration: Timing and Methodology

The AACP survey system allows programs to determine when to administer the various CQSs within relatively wide administration windows, allowing for flexible
administration that fits a variety of programs. AACP provides recommendations for how often to administer each survey and to whom. The survey administration guidelines are clear and flexible to allow sufficient time for programs to collect, process, and interpret survey data. Programs select administration timeframes based on a variety of criteria (eg, academic calendar, administrative needs, etc). Information on how programs chose to administer the surveys based on these guidelines is not readily available. This becomes challenging when programs aim to compare their CQS results with peer programs, as peer institutions may not administer the survey in the same years. While flexibility in administration is beneficial given the differences in programs and program needs, consistent comparators are helpful in terms of benchmarking and comparison.

Another consideration within survey administration is response rate. The “good use” document denotes that response rates greater than 60% should be the target. In the study by Meny and colleagues, most programs reported response rates greater than 60% on the graduating student survey (77%) and faculty survey (86%), but not on the preceptor survey (9%) or alumni survey (3%). These reported response rates are similar to the national response rates for the past five years, which can be found in Table 2. Sampling techniques are allowed for the preceptor and alumni surveys, which may reduce coverage and sampling errors (Table 1). However, Meny and colleagues found that of the responding programs, only 19.3% and 5.7% reported using these methods for the preceptor and alumni surveys, respectively, suggesting that sampling techniques alone may be insufficient for ensuring a robust data set. Instead, additional guidance on how best to enhance response rates for these groups may be a higher priority. The literature and national response rates for the preceptor and alumni surveys suggest that the data obtained should be interpreted with caution. Consideration should be given to the utility of these surveys and whether their continued administration is necessary as part of the accreditation process.

The implementation of a standardized survey has benefits and drawbacks. The CQS do a good job of providing programs with information on general areas of concern. However, they are not designed to address program-specific factors. Programs have the option to include additional questions at the conclusion of the survey (eg, using links to external SurveyMonkey or Qualtrics surveys) to collect program-specific information, but one limitation to this approach is that program-specific data cannot be directly linked with the CQS data. Meny and colleagues found that few programs take advantage of this option (graduating student, 28%; faculty/preceptor/alumni, 10%-13%) and suggest that the reason may be respondent burden. Programs can add items to address CQS content in subsequent years; however, with differing respondents, interpretation may be confounded. Another limitation of program-specific surveys is that the CQS are already lengthy and cover several areas, which may further impact statement interpretation and response rates. Survey length is often used as a proxy for respondent burden, and a meta-analysis found survey length to be significantly associated with response rate. Thus, the length of the CQS may contribute to low response rates and discourage the addition of supplemental questions. While the AACP survey system feature of allowing program-specific items to be added to the CQS is well-intentioned, limitations currently appear to outweigh the benefits of using this feature, resulting in few programs utilizing this approach. As programs have used the CQS in recent years, challenges have become evident, including lack of consistent administration and timing for comparison, low response rates (particularly preceptor and alumni surveys leading to concerns about continued administration), and underutilization of supplemental questions.

To move the timing and methodology of CQS administration from good to great, consideration should be given to enhancing the AACP Assessment and Accreditation Management System (AAMS) to provide more detailed information about administration and timing of the CQS. If programs were willing and able to share their planned CQS administration timeframes within AAMS, this could allow programs that share preceptors to better coordinate each program’s preceptor survey administration to maximize response rate. Enhancing the survey system such that a limited number of program-specific items could be added to the CQS instead of being added through an external link would allow for program-specific item responses.

Table 2. National Response Rates to the Curriculum Quality Surveys Conducted by the American Association of Colleges of Pharmacy, 2016-2020

<table>
<thead>
<tr>
<th>Survey Type</th>
<th>2016, %</th>
<th>2017, %</th>
<th>2018, %</th>
<th>2019, %</th>
<th>2020, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduating Student</td>
<td>76.4</td>
<td>75.4</td>
<td>78.2</td>
<td>75.1</td>
<td>73.3</td>
</tr>
<tr>
<td>Faculty</td>
<td>72.9</td>
<td>73.5</td>
<td>71.7</td>
<td>74.2</td>
<td>80.2</td>
</tr>
<tr>
<td>Preceptor</td>
<td>20.7</td>
<td>20.7</td>
<td>20.1</td>
<td>17.2</td>
<td>20</td>
</tr>
<tr>
<td>Alumni</td>
<td>11.6</td>
<td>12.4</td>
<td>10.6</td>
<td>10</td>
<td>9</td>
</tr>
</tbody>
</table>
Interpreting Data and Results

CQS items were designed to assess broad areas rather than pinpoint the source of an issue; thus, CQS data are intended to help identify broad areas of strength or opportunity. Triangulation of CQS data with data from other sources is recommended to enhance the interpretive value of CQS data.1 For example, graduating student survey results that suggest students are not prepared to achieve a learning outcome can be triangulated with curriculum mapping data and advanced pharmacy practice experience evaluations to help determine if and to what extent an issue needs to be addressed. However, accurately interpreting CQS data is a challenge for many programs. Programs have not been provided information regarding CQS psychometrics, and questions remain on how accurately the CQS items assess stakeholders’ perceptions.9

Data also should be analyzed appropriately. The “good use” document states that item responses are ordinal data and summing the agreement or disagreement is an appropriate method of collapsing the data. While programs might be interested in more complex analyses, application of more advanced inferential statistical analyses is not appropriate as the data do not meet the assumptions of parametric statistical tests. The survey is not designed to represent latent variables, so it would not be appropriate to group items into a measure (eg, Standards 1 through 4 into an “educational outcome” score). In addition, while some items are the same across the CQS (ie, graduating students, alumni, preceptors, faculty), it is not appropriate to compare different stakeholders’ responses. A Rasch analysis of the survey demonstrated that the groups were interpreting the items differently, which is consistent with the results from Karpen & Hagemeier.1,9

While these statistical comparisons are not appropriate, AACP provides a crosswalk of the common items across the four CQS.1 Basic comparisons on these areas may provide an overview of agreement and disagreement across stakeholders, and comparisons with national data and peer groups may provide additional context to the survey results. AACP publishes national, public, and private institution summary reports, and programs can obtain peer comparison data in aggregate if five or more peer programs are selected. Programs should identify peers based on institutional criteria such as student enrollments, mission, curriculum structure, and geographic location, to name a few. The variation in program format across the Academy and the broadness of survey items may allow confirmation of general areas. Some institutions may find it challenging to determine peer institutions for comparison as approaches for determining peer institutions varies across programs in the Academy and is not fully described in the literature. For example, programs may have geographic, aspirational, and/or research/scholarly peers. The process for determining peer institutions involves the gathering of data across a variety of areas (eg, student demographics, regional location, student services, financial aid options, degree offerings). Another obstacle with peer comparisons is that identified peers may not have administered a given CQS during the same year, making it difficult to identify consistent peer comparators.

Benchmarking and peer comparisons may allow programs to establish thresholds for action. A study found that most programs use benchmarks and that these are typically updated either annually or every two to five years.4 There does not appear to be a standard “acceptable” threshold for CQS responses across programs. For example, one program described a process whereby the agreement responses were compared to national and peer programs to identify areas of opportunity and concern.3 Other programs have combined agreement and negative agreement responses to ascribe agreement level.6,7 One program also reported setting internal (ie, negative agreement levels greater than 10% on graduating student survey) and external benchmarks (ie, peer group differences greater than 5%) as items requiring action.4

Choosing data with which to triangulate should be carefully determined and should make sense related to the content area of the survey. Meny and colleagues found that data from the surveys are often triangulated with other existing data (40%), or additional data are collected (55%) after examining CQS results.4 When identifying data to use for triangulation, the required and optional data uploads collected as part of the ACPE self-study process could be a consideration. Using the CQS questions in the context of the ACPE standards may provide ideas for appropriate contextualization and interpretation.

To move CQS Interpreting Data and Results from good to great, consideration should be given to enhancing the survey system and/or AAMS to allow programs to select peers based on variables routinely reported to AACP. For example, since AACP collects tuition data annually from programs, tuition could be a variable by which a
program selects its peers (eg, programs with annual tuition < $25,000, $26,000-$50,000, etc). If the system were to allow for multiple variables to be selected (eg, public/private, geographic location, tuition), the peer comparison reports may even be more valuable to programs. Additionally, providing guidance to programs on what “acceptable” thresholds for differences in CQS responses are from the national cohort. While we do not think a mandated threshold is necessary, a range of acceptable thresholds should help standardize how programs interpret their CQS results in the context of the national CQS results.

**Following up on Action Plans**

As mentioned previously, the CQS are designed to identify general areas of concern allowing for broad application across the various programs in the Academy. Therefore, the survey results are the start of a conversation, and additional information may need to be gathered. The programmatic evaluation plan is continuous and cyclical. Thus, a suggested follow-up step is the creation of action plans, which should provide specific details on how success will be measured, and the actions needed to get there. The goal of the action plan is to support a continuous cycle of quality improvement.

One action item may be to obtain more detailed information about areas of concern, which can be accomplished in a variety of ways, including follow-up surveys, focus groups, and town hall meetings. An article by Meny and colleagues describes town halls implemented to assist in interpreting data from the faculty CQS, which is one way to discuss the data with key stakeholders. An essential follow-up step is to communicate survey results, which should be done using a targeted approach, and meetings should be held with stakeholders to review relevant results and cultivate deeper understanding and context of the results. Lastly, results from data triangulation may trigger additional action steps, such as collecting more information, messaging/communication, curriculum changes, and/or continued monitoring. To continue to enhance the utility of the CQS programs, the programs should continue to publish and share their findings surrounding utilization of the instruments. AACP and, more specifically, the Assessment SIG should continue to work together to share successful data-driven models of continuous quality improvement and share that information through continuing education sessions, webinars, publications, and other venues.

To move CQS Following Up on Action Plans from good to great, consideration should be given to strongly promoting the sharing of best practices for designing, implementing, and monitoring of CQS action plans across programs through informal means, such as professional organizations, meetings, forums, newsletters, etc. Consideration should also be given to making a “call to action” to assessment professionals to share their follow-up/action plan processes and outcomes through formal mechanisms, such as professional presentations and publications.

**CONCLUSION**

For many years now, the AACP CQS have been good tools for pharmacy programs to use as a starting point for understanding the perceptions of key stakeholders and for comparing these perceptions across timepoints and institutions. While the authors of this Commentary appreciate both the intent and limitations of the CQS, we believe that the impending changes in ACPE accreditation standards create an opportune inflection point for AACP and ACPE to make meaningful changes to how the CQS are constructed, administered, and reported. Further, we believe the Academy has a responsibility to share best practices, through both informal and formal means, for how to use CQS for continuous quality improvement. Through the combined efforts of our professional organization, accreditors, and program faculty and administrators, we can elevate the CQS from good to great.

**REFERENCES**
