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360 Degree Clinical Competence Evaluation for Pediatric Hospitalist Advance Practice Provders

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360° Clinical Competence Evaluation for Pediatric Hospitalist Advanced Practice Providers

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Abstract

Problem: Advanced practice provider (APP) peer reviewed clinical competencies is an expected part of professional, organizational, and The Joint Commission (Joint Commission) requirements, however, is not well defined and subject to organizational application and interpretation. Providers favor peer review as a means to improve professional practice. There is a lack of data to support frequency of feedback and method of feedback to support readiness to change practice and comfort giving and receiving feedback.

Methods: The quality improvement project utilized an analytical experimental design. The Cardin Hospitalist Advanced Practice Provider - Readiness Assessment (CHAPP-RA) tool was implemented to a convenience sample of 18 APPs. Quantitative data was collected via survey via pre and post CHAPP-RA tool implementation. Data collected included readiness to change practice and comfort giving and receiving feedback.

Results: Following CHAPP-RA tool implementation, 75% (n = 3) APPs reported changing practice based on peer and attending feedback. This resulted in a 50% and 12.5 % increase in APPs changing their practice based on peer and attending feedback. Comfort giving and receiving feedback was unchanged.

Implications for Practice: Use of the CHAPP-RA tool was one method to promote changing practice based on peer and attending feedback.

360° Clinical Competence Evaluation of Pediatric Hospitalist Advanced Practice Providers

Advanced practice providers (APPs) comprising advanced practice registered nurse practitioners (NPs) and physician assistants (PAs) have an increasing presence in hospital settings as a result of 2003 and enhanced 2011 resident duty hour restrictions (PSNet, 2019). NP and PA professions began in 1965 and 1967 respectively, in response to expanded Medicare and Medicaid coverage for low-income women, children, the disabled, and elderly as well as anticipated primary care physician shortages (AANP, 2023; AAPA, 2023a). APP professions began in the ambulatory setting, providing primary care including health education which has evolved into care across the lifespan in a variety of patient care settings.

NPs are licensed, independent advanced practice nurses who can practice autonomously or in collaboration with physicians in a variety of settings including primary, acute, and specialty care (AANP, 2022). Currently, 335,000 licensed NPs provide more than 1 billion patient visits each year (AANP, 2022). NPs chose a population foci and practice includes assessment, ordering and interpreting laboratory and diagnostic tests, initiating and managing treatment including prescribing medication, providing counseling, education, and care coordination (AANP, 2022). Scope and standards of practice are universal for NPs, yet assessment of specific clinical competencies can vary between practice locations.

Similarly, PAs are licensed clinicians, who also can practice autonomously in a variety of practice settings. There are more than 168,000 PAs providing over 500 million patient encounters (AAPA, 2023a). PAs are educated in general medicine as

opposed to NP focused on advanced nursing practice. PAs are generalist and do not choose a population foci (AAPA, 2023b). Further, training follows a curriculum based on medical school education. Collectively, NPs and PAs are part of multidisciplinary teams providing inpatient care.

Joint Commission sets quality standards for hospitals, including standards for any provider who provides services and is recognized by state law (TJC, 2022). Standards include privileges, credentials, quality improvement benchmarks, focused (FPPE), and ongoing professional practice evaluations (OPPE) to ensure safe patient care and ongoing evaluations are occurring (TJC, 2022). The OPPE cycle is every two years. During this timeframe, three peer evaluations must occur, not to exceed every 8 months (TJC, 2022). Joint Commission defines a peer as someone from the same discipline (TJC, 2022). In the event an APP peer is not available, a physician can be a peer reference (TJC, 2022). These standards are typically governed by the medical credentialing committee and implemented by the institution's medical staff office.

At the institutional level, Joint Commission does not provide specific peer review or practice-specific competencies to measure APPs. APPs find Joint Commission quality improvement data, which is tied back to competencies, difficult to individually measure since many are part of multidisciplinary teams (Itoh et al., 2021; Kamm et al., 2021). The American Nurses Association (ANA) established a peer-review guideline position statement in 1988. Peer reviews are an intentional review of quality, appropriateness of services ordered, and professionalism with the intent to promote professionalism through personal accountability (ANA, 1988). ANA defines a peer as someone of the same rank and clinical expertise while performing a similar role (ANA, 1988). Similar definitions

are found for PAs (AAPA, 2023b). In alignment with ANA and AAPA, APPs continue to follow peer review guidelines. NP peer review is more defined in Magnet accredited hospitals and further where APPs maintain hospital privileges.

Understanding the peer review process is vital to APP success in the acute care setting. In a comparative study of Magnet hospitals, Roberts and Cronin found most nursing and medical peer reviews were triggered by adverse events (2017). Additionally, there is a lack of a uniform approach to peer review, including multiple barriers to implementation and a successful program (Roberts & Cronin, 2017). They suggest a uniform approach and process measurements as key to a successful peer review program, hence the strategies to implement continuous peer review as a mechanism to improve APP competency and quality of care.

In a large, mid-western children's hospital, there is a need for assessing pediatric hospitalist APP clinical competencies through 360° evaluation. Benner's Stages of Clinical Competency served as the conceptual theory. The Iowa Model is the framework for this quality improvement project with a Plan Do Study Act (PDSA) cycle (Iowa Model Collaborative, 2017). The purpose of this project is to understand APP perception of the current peer review process and implement a validated competency assessment while applying a uniform and sustainable peer review process for APP competency evaluation. The second purpose is to facilitate APP active participation in the peer review process promoting feedback acceptance and supporting readiness to change practice. The aim of this project is for all hospitalist APPs to evaluate at least three other APP hospitalist colleagues within a three-month period. The primary outcome measure is will APPs use competency based recommendations in practice. The secondary outcome

measure of interest is assuming APPs use competency based recommendations in practice, is peer feedback readily accepted. The question for this study is: In advanced practice providers practicing in pediatric hospitalist medicine, what is the effect of 360° clinical competence peer evaluation on feedback acceptance and readiness to change practice over three months?

Review of Literature

A literature search was conducted utilizing CINAHL, Medline (EBSCO) and PubMed. Key search terms and phrases included *advanced practice nurse, advanced practice provider, competency assessment, physician assistant, and 360° evaluation,* with use of the Boolean operator AND. Initially, 146 results were generated based on the key search terms and phrases. Inclusion criteria were studies from 2018 to 2023, published in the English language, peer reviewed articles and studies involving humans only. Publications selected were all from the past five-years to ensure the most up to date information. Exclusion criteria were those publications involving patient clinical trials, other animal studies, or not published in English. After inclusion and exclusion criteria were applied, 52 publications were generated, 12 publications were selected and 3 publications were obtained through the ancestry method. 15 publications were selected for this literature review.

Nurse practitioner (NP) and physician's assistant (PA), collectively referred to as advanced practice providers (APPs), clinical competency assessments vary across educational and practice areas. APP student education is tailored based on professional consensus of competency-based frameworks (AANP, 2022; AAPA, 2021;

Jenkins-Weintaub et al., 2023; NONPF, 2022). A student competency-based framework is needed to support the transition from academia into clinical practice. Expert consensus agreed upon core NP competencies and found redundancy was reduced and competency clarity was improved (Chan, Lockhart, Schreiber, et al., 2020). This was further supported by national standards and the PRIME-NP model which were recommended to perform NP competency assessments based on current clinical knowledge (Jenkins-Weintaub et al., 2023). PA competency assessments are based on consensus medical models of care (AAPA, 2021). Once transitioned to practice, competency assessments vary depending on the practice area. Chan, Lockhart, and Thomas et al. (2020) found 14% of NP care was related to direct clinical practice. Further, competencies were written at the doctorate level yet only a small percentage were doctorally prepared providers (Chan, Lockhart, & Thomas et al., 2020). Clinical competency must be established to provide student competency-based education recommendations. Within both groups, portions of APP competency are based on feedback from peers, instructors, and physicians.

Physician feedback, either verbally or written, is vital to APP professional growth and collaboration. Physician competency assessment of NPs was found to be higher for NPs with higher education and more work experience (Liang et al., 2021). In the United States, master's, post-master's and doctoral preparation is required as well as passing NP national board certification (AANP, 2022). PAs are master's prepared, can have a health care background, and must pass national certification (AAPA, 2021). Higher education and more work experience can be expected to close the competency gap, thereby improving the quality of patient care (Liang et al., 2021).

In a study of peer feedback, Liang et al. (2021) found head nurse assessments of NP competencies were the lowest among the peer groups studied. Physicians' higher competency assessment could be explained by the nurse misunderstanding NP competencies, the physician working closely with the NP, and having the ability to directly observe the NP's competency and skills (Liang et al., 2021). Similar findings were reported by Hennel et al. (2022) where non-physician raters did not feel comfortable rating resident physicians, leading to 'unable to comment' responses. Peer evaluations are crucial for the appropriate assessment of APP clinical competencies and can be supported with standardization.

Competency standardization is crucial to ensure clinical competency. Puravady and McCarthy (2021) found creating a structured competency-based evaluation framework supported and provided clarity to the NP role. Establishing, maintaining, and performing ongoing, standard competency assessments and fitness to practice was beneficial for the APP and employer (AAPA, 2021; Puravady & McCarthy, 2021). Structured competency-based self-evaluations allowed the personal application of learning-teaching strategies to develop and maintain nursing competencies when gaps were identified in knowledge, skills, and professional performance (Soares et al., 2019). Following training on resident peer evaluations, raters and supervisors reported improved awareness of their role in the resident's professional development (Hennel et al., 2022). Standardization among raters, supervisors, and respective providers evaluation and self assessments provides clear reference points, and expectations for the provider being evaluated.

Well-defined competencies established professional performance and supported high-quality, safe patient care (Soares et al., 2019). When used as part of the peer review process, an evaluation rubric was found to have high inter-rater reliability (Colella et al., 2021). Colella et al. (2021) recommended utilizing the rubric as part of the peer review process with refined direct clinical practice measures. This was further supported by Fedel et al. (2019) while establishing palliative care competencies. Utilizing rubrics and gaining more performance information increases the supervisor's precision of performance ratings (Bizzi, 2017). As a multilevel theory, Bizzi (2017) speculated employees who are in a highly connected, dense network, with more positive peer feedback, are more likely to have performance and supervisor feedback overlap. The feedback however had to be sought out by the supervisor, either through conversations, observation, or written reports (Bizzi, 2017). Peer review on clinical work within a structured and standardized assessment enhances the evaluation credibility and potentially eliminates any biases that could arise from an individual's involvement as an evaluator.

Transparent performance review is enthusiastically sought after by healthcare professionals (Fedel et al., 2019; Shaw et al., 2019). Electronic health record (EHR) data is often used to inform performance feedback by providing quality metrics and benchmarking data. Interpretation of static dashboards, rather than interactive conversations and patient application, was identified as a challenge to understanding personal performance (Shaw et al., 2019). Many studies and position statements support self-identification of knowledge, skills, and attitude gaps, as well as organizations identifying and removing barriers to professional development (ANA,

1988; AAPA, 2021; Puravady & McCarthy, 2021; Soares et al, 2019). The peer review process supports professional accountability and growth by focusing on nursing practice for NPs and medical models for PAs (ANA, 1988; AAPA, 2021). Hennel and colleagues (2022) found pediatric residents reported feeling thankful for coworkers who were supportive and committed to the residents' professional development. Residents and NPs felt supported in their role and changed practice to reflect feedback (Hennel et al., 2022; Kamm et al., 2021). Healthcare professionals were interested in data collection and feedback that was used to develop them professionally, rather than be used punitively (Shaw et al., 2019).

Clinical peer review process separate from the credentialing activity was associated with higher quality impact scores (Edwards, 2018). APPs and physicians who work clinically within a hospital or institution regulated by Joint Commission are required to undergo focused and ongoing professional practice evaluations in which peer review is a required component (ANA, 2022; AAPA, 2023; TJC, 2022). In a multi-hospital study, Edwards (2018) found that self-reporting was a strong independent predictor of overall quality improvement program effectiveness. The number of quality and safety improvement activities identified by the hospital, case review turnaround time, and clinicians with excellent performance was strongly correlated with overall program effectiveness rather than reporting adverse event rates (Edwards, 2018). It is important to note the peer review process involves feedback, or rather, the acceptance of feedback. Resident physicians and allied health professionals expressed interest in bi-directional feedback, however, multiple systemic barriers were identified to the acceptance of feedback (Yama et al., 2018). Scheffe's *post hoc*

analysis showed overall NP competency was significantly higher for NPs, physicians and nurses rankings compared to 'head' nurse rankings (Liang et al., 2021). In a peer review study, 25% post-pilot survey participants felt the peer review process had influenced or changed their practice, up from 8% pre-pilot survey (Kamm et al., 2021).

Hamric's Model of Advanced Practice Nursing Core Competencies and Benner's Stages of Clinical Competency will serve as the conceptual theories. The Iowa Model is the framework for this quality improvement project. This model will allow multiple phases of APP feedback to improve clinical competency identification, metrics, and the peer review process. The changes identified will be beneficial for application among other mixed APP clinical teams within pediatric hospitals.

In summary, APP clinical competencies peer review is an expected part of professional, organizational, and Joint Commission requirements, however is not well defined and subject to organizational application and interpretation. Peer review is favored by providers as means to improve professional practice, and was felt by providers as collegial support. Transparent, reliable, and standardized clinical competencies improve provider and institutional quality metrics and patient care. There are gaps in the literature about pediatric hospitalist APP peer review frequency and competency measures that improve patient outcomes.

Methods

Design

The study was an analytic, experimental quantitative design. The Cardin Hospitalist Advanced Practice Provider - Readiness Assessment (CHAPP-RA) tool (see Appendix A) was the independent variable and the dependent variables were APP

readiness to change practice and feedback acceptance. CHAPP-RA is a milestone based assessment tool. The CHAPP-RA uses a 17-question assessment with a 9 point Likert type scale and a 'not observed' category, which is in alignment with the ACGME milestones format and five levels of ability. The nine-point scale rating permits intermediate performance. The five labels, (1) novice, (2) advanced beginner, (3) competent, (4) proficient and (5) expert/coach are not included on the CHAPP-RA to avoid bias (Singh et al., 2021). A peer is defined as someone of the same rank and clinical expertise while performing a similar role (ANA, 1988; TJC, 2022). An attending physician is defined as a MD/DO who has completed medical training and is the primary physician responsible for providing guidance to APPs on the medical care of hospitalized patients including patient care and making treatment decisions (TJC, 2022).

Setting

The setting for the study was an urban, Midwestern, 455 bed Level 1 children's trauma center from January 1st through March 30th, 2024. The medical center is staffed by APPs and physicians who are either employed by the medical center or the local school of medicine and are credentialed in their specialty area.

Sample

A convenience sample of 18 pediatric hospitalist APPs and 24 attending pediatric hospitalist physicians were asked to participate. APP inclusion criteria included out of orientation, currently in OPPE cycle, primary practice includes acute medical inpatient, credentialed advanced practice provider, not an APP leader, and over 51% of FTE is hospitalist practice. APP exclusion criteria included any time off over 2 weeks, in orientation, ambulatory setting, supervisor or above of APPs, primary practice setting is

not hospital medicine. Physician inclusion criteria includes active practice in hospitalist medicine, over 51% of FTE is hospitalist practice, and an attending physician with oversight of APP during study time frame. Physician exclusion criteria includes resident or fellow status, less than 51% of FTE is hospitalist practice, and no APP oversight during the study time frame.

Procedures

The CHAPP-RA tool was implemented on January 1st, 2024. Separate APP and physician meetings occurred 2 weeks prior to CHAPP-RA tool implementation. During the meetings, the CHAPP-RA tool was introduced as well as the background and study intentions. APPs and physicians received anonymous pre and post survey questions via email from the primary investigator, created in Microsoft Forms, two weeks prior to and then immediately following, the tool implementation. Participation in the pre and post surveys was voluntary.

Pre-survey APP demographic data including years of APP experience, knowledge pertaining to clinical competency including duration and measurement methods, feedback from physician and peers including feedback method, application to changing clinical practice and feelings around feedback (see Appendix B). Pre-survey physician demographic data including years of practice, years supervising APPs, knowledge pertaining to clinical competency including duration and measurement methods, feedback to APPs including feedback method, application to changing clinical practice and feelings around feedback (see Appendix C).

Post-survey APP demographic data including years of APP experience, knowledge pertaining to clinical competency including duration and measurement

methods, feedback from physician and peers including feedback method, application to changing clinical practice and feelings around feedback (see Appendix D). Post-survey physician demographic data including years of practice, years supervising APPs, knowledge pertaining to clinical competency including duration and measurement methods, feedback to APPs including feedback method, application to changing clinical practice and feelings around feedback (see Appendix E).

All CHAPP-RA questions were included in the project tool implementation. In the first six weeks, APPs received a Qualtrics link to complete their CHAPP-RA self-assessment via email. APP peer raters received a Qualtrics link to complete the CHAPP‑RA via email after working at least three consecutive shifts within the same week directly with, or immediately following, their peer APP. Physician raters received a Qualtrics link to complete the CHAPP-RA via email after working two consecutive shifts directly supervising the APP (or three shifts within the same week). Due to schedule variability week to week, some raters worked with APPs for multiple stretches of consecutive shifts, therefore only the longest stretch was evaluated. After six weeks, individual CHAPP-RA assessments were compiled. The APP, their collaborating physician and the APP leader received aggregated feedback via email. The process was repeated for the next six weeks with the APP, their collaborating physician and the APP leader receiving final, aggregated results. All Qualtrics responses were reviewed on a weekly basis for outlier data samples.

Data Collection and Analysis

A survey was developed for pre and post CHAPP-RA intervention collection. The pre and post survey consisted of 18 questions in two parts: demographic characteristics

and professional knowledge of competency, feedback and application to clinical practice. The collected anonymous data was de-identified, coded and stored on a double authenticated hospital server accessed over a secure network connection from a hospital issued password protected laptop.

To determine if APP knowledge pertaining to clinical competency, feedback responses and feelings around feedback varied with clinical experience, APP's were grouped by years of practice (Novice APPs have less than 2 years of APP experience, mid-career APPs have 2 to not more than 5 years of experience, senior APPs had >5 years of experience). Descriptive statistics was used to describe the sample groups. Due to the small sample size, Fisher's Exact test was calculated to understand if there was a difference between APP and attending physician understanding of the credentialing process as well as the relationship between feedback acceptance, comfort giving and receiving feedback, and readiness to change practice. To understand the impact of the CHAPP-RA intervention on changing practice and comfort giving feedback, analysis of variance (ANOVA) were calculated. Data was analyzed utilizing IntellectusStatistics (2019). The study results were reported back to pediatric APP hospitalist leadership and hospitalist physician leadership to guide decision making regarding peer feedback and implementation strategies.

Approvals

The study was approved by the doctoral committee and human subject research approval from the IRB at University of Missouri - St. Louis. Risks of the study include increased time and resource demands, mental health implications include stress, anxiety, and depression, bias leading to unjust evaluations, interpersonal tension, and potential for

burnout. Benefits of the study include transparent competency standardization, identification of professional development opportunities, enhanced collaboration, improved quality assurance, complement quality improvement, strengthened regulatory compliance and legal protections. Ethical considerations of the study include maintaining confidentiality of all involved parties, ensuring assessments are unbiased and transparent, and ensuring collected data is used for its intended purpose.

Results

The total number of pre and post surveys completed was 26 (N =26) of the 18 APP's (n = 10) and 24 attendings (n = 16) invited to participate (overall response rate = 30.9%). The majority of the APPs were pediatric nurse practitioner - primary care certification (n = 4, 66.67%) with two years or more of experience (n = 3, 83.33% and n = 3, 75%), and practiced primarily in the inpatient setting (n = 5, 83.3% and n = 4, 100%) as described in Table 1, Appendix F. The attendings had 5+ years of experience (n = 7, 70% and n = 4, 66.67%, respectively), 2+ years of APP oversight in a collaborative practice agreement and practice primarily in the inpatient setting.

Fisher's Exact Test was calculated for the small sample size to understand if there was a difference between APP and attending understanding of the credentialing process, however it did not demonstrate a significant difference across all groups (p = 1.000) as noted in Table 2, Appendix G. Despite the small sample size and no statistical difference, APP demonstrated increased understanding post intervention across all categories related to the methods used to assess APPs (12.5%), how often APPs are evaluated (12.5%) and the relationship between competency and privileges (25%).

Fisher's Exact Test demonstrated a significant relationship between how well peer feedback was received and how well attending feedback was received based on an alpha value of .05, (p = .022) as described in Table 3, Appendix H.

To understand if there was a relationship between peer comfort giving feedback and how well peer feedback was received, Fisher's Exact test was calculated however it did not demonstrated a significant relationship based on an alpha value of .05, (OR = 1.00, p = 1.000) as noted in Table 4, Appendix H.

ANOVA was performed to understand if there was a difference pre-intervention versus post-intervention on changing practice based on feedback and comfort giving feedback. Overall results did not demonstrate a significant difference between changing practice based on feedback source peer or attending, $F(1, 8) = 0.53$, (p = .486) and $F(1, 8) = 0.06$, (p = .807), respectively; as demonstrated in Appendix I. Further, it did not demonstrate a significant difference between comfort giving feedback between APP's pre and post intervention, $F(1, 8) = 0.00$, (p = 1.000), as shown in Appendix J.

Fisher's exact test did not demonstrate a relationship between how well feedback was received and changing practice based on peer or attending feedback based on an alpha value of .05, (p = .467) and (p = .650), respectively, as noted in Appendix K.

Discussion

The total number of CHAPP-RA surveys sent was 156 (N = 156). In the first six-week cycle was 84 (n = 84) and the second six-week cycle was 72 (n = 72). As noted in Appendix L, the overall response rate for APPs and physicians was 44.5% and 63.6%,

respectively. APPs received a range of 1-7 assessments, median 5 and attendings received a range of 2-9, median 4.

APPs and physicians were asked if they understood the credentialing process, including how often they were evaluated, by which assessment method and if they understood how competency related to the hospital privileges process. A majority of APP participants reported knowledge of the assessment method (*n* = 4, 66.67%), whereas less physicians reported knowledge of the assessment method (*n* = 3, 30%) post intervention. They equally understood how competency related to hospital privileges (*n* = 3, 50%) as described in Appendix G.

APPs reported changing practice based on both peer and attending feedback more often after the intervention; an increase by 50% following peer feedback and 12.5% after attending feedback. The results are supported by previously identified studies demonstrating feedback is integral to practice change (Hennel et al., 2022; Kamm et al., 2021). Further, ongoing professional practice evaluations including competency assessments are required components of providers credentialed at hospitals. Findings are supportive of current research suggesting peer feedback improves quality of care (Edwards, 2018).

Comfort giving feedback was equally reported as ‘uncomfortable’ and ‘comfortable’ among APPs in pre and post survey responses (*n* = 3, 50% and *n* = 2, 50%) indicating there was not a difference within the study timeframe. APP overall comfort providing constructive feedback is multifaceted and can include providing training and education, clear guidelines, and regular practice. Findings are supportive of current

research suggesting that a supportive environment with regular feedback supports their professional development (Shaw et al., 2019).

APPs rated the feedback receptiveness from peers and attendings as "good" in both pre- and post-surveys (n = 5, 83.33%). A significant relationship was found between the quality of feedback receptiveness reported from peers and attendings (p<.022). The findings are supportive of current research demonstrating providers willingness for bi-directional feedback (Yama et al., 2018).

Implications for practice include ensuring APPs are aware of the hospital credentialing process, assessment methods and association between competency and privileges. Additionally, APPs demonstrated feedback acceptance and readiness to change practice regardless of feedback source, either peer or attending. The study size was small, therefore results should be extrapolated to larger groups with caution.

Finally, overall APP response rates may have been affected by the number of surveys sent over the project timeframe causing survey fatigue. The APP team received multiple surveys from this project as well as the hospital system, and may have been unable to dedicate time to answer survey questions. Recommendations were made to decrease the number of CHAPP-RA surveys sent to each team member. Providing feedback and teaching are integral to APP active practice therefore consideration must be given to removing the evaluators anonymity and including providing peer evaluation as part of competency and privileges. Additionally, APPs can identify their own evaluator which may improve engagement in the process.

Conclusion

Prior to implementing the CHAPP-RA surveys, the inpatient pediatric hospitalist APP team did not utilize a validated assessment tool, which included peer assessment, as part of 360° feedback. The hospitalist APP team implemented the validated tool as part of ongoing competency assessment which includes a peer review process. By implementing the assessment tool and receiving timely, constructive feedback, the hospitalist providers are able to implement practice changes. Further, the hospitalist team is able to meet JCAHO requirements for the peer review process as part of OPPE. Recommendations include the continued use of the CHAPP-RA tool as part of the peer feedback process, however continuing education and training regarding providing feedback should be addressed. Future study should focus on practice changes and the effect on department specific quality improvement measures.

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Appendix A

CHAPP-RA instrument

Please indicate your rating by **clicking on the circle**. Please reflect back on this APP's performance and indicate the **highest sustained performance**. If the APP does not meet all the criteria for a level, use the in-between rating.

1. **History Taking**									
N/O	History gathering is disorganized and/or history contains major gaps in relevant information.		Routinely obtains some but not all relevant components (location, quality, severity, duration, timing, context, modifying factors, associated signs and symptoms) of the chief complaint. Histories regarding secondary complaints could be partial or missing entirely.		Consistently able to obtain crucial information related to the chief complaint. Continues to work on efficiency, organization, or hypothesis-driven data gathering.		Histories are performed in an organized, efficient, and complete manner, and the APP can adapt their style based on the encounter.		Models high quality history taking regardless of language barriers, health literacy, or other factors. Is able to efficiently and thoroughly obtain histories on patents presenting with multiple unrelated chief complaints.
O	O	O	O	O	O	O	O	O	O

2. Physical Exam									
N/O	Unable to correctly perform basic physical exam techniques. Misses important physical exam findings.		Performs basic physical exam techniques inconsistently, or maneuvers are partially performed (eg: only palpates the abdomen in one area).		Able to perform basic physical exam techniques. Able to identify normal vs abnormal findings in major body systems.		Able to perform a focused or comprehensive exam correctly and efficiently. Able to prioritize and interpret physical exam techniques related to the patient's complaints.		Consistently models evidence-based physical exam techniques and is able to modify these techniques based on individual patient characteristics. Consistently able to perform high-quality physical exams on sensitive or painful areas, simultaneously obtaining relevant information and prioritizing patient comfort.
O	O	O	O	O	O	O	O	O	O

3. Medication Reconciliation									
N/O	Unable to perform basic medication reconciliations. Significant errors in medication reconciliation on admission or discharge.		Able to perform medication reconciliations on patients with simple regimens, however misses some components (ex: the time of day a medication is administered could be inaccurate). Could still be lacking the medical knowledge necessary to identify duplicate medications or inconsistent regimens (ex: could report a patient is taking both furosemide and Lasix).		Routinely able to perform medication reconciliations on patients with simple medication lists. Able to identify major inconsistencies in medication reconciliations and potentially harmful medication interactions.		Able to accurately perform medication reconciliations for patients with complex medication regimens.		Medication reconciliations are accurately and efficiently performed even in the setting of patients with poor health literacy or multiple complex regimens across different health care systems. Critically and accurately interprets medication lists for potential harmful interactions, polypharmacy, or cost-conscious / patient-centered alternatives.
O	O	O	O	O	O	O	O	O	O

4. Clinical Reasoning									
N/O	Differential diagnoses are absent or lack crucial elements. APP fails to utilize basic principles of clinical or diagnostic reasoning.		Able to construct basic differential diagnoses for some but not all common conditions. Cannot yet reliably prioritize their differential diagnoses. Diagnostic process could suffer from cognitive biases.		Able to create a basic differential diagnosis for common problems. Reliably includes "can't miss" diagnoses. Able to prioritize or filter pertinent data as part of the diagnostic process.		Differential diagnoses are thorough for both common and uncommon problems. Consistently able to formulate accurate problem representations.		Differential diagnoses are thorough for the most complex of conditions and change with the acquisition of new data. Acknowledges and works to overcome implicit and cognitive biases. Accepts diagnostic uncertainty as an inevitable aspect of clinical care.
O	O	O	O	O	O	O	O	O	O

5. Assessment/Plan of Care									
N/O	Assessments and plans of care are often absent or lack crucial elements. Plans do not change as new data emerges or as patients improve or decompensate.		Assessments and plans of care for common diseases may be accurate, however may not reflect individual patient characteristics, comorbidities, or goals of care. Plans for common presentations of common diseases could still require significant input from the supervising provider.		Assessments of common presentations of common diseases are often accurate. Plans of care for common presentations of common diseases rarely require significant input from the supervising provider.		Assessments and therapeutic plans of care for common and uncommon diseases are accurate and detailed. Plans of care for common diseases require no significant input from supervising providers. Plans of care for uncommon diseases or complex disorders require minimal input. Able to independently modify therapeutic plans to reflect changes in clinical status.		Assessments are consistently accurate and detailed, including assessments of patients with complex diseases or uncommon presentations of uncommon diseases. Care plans are individualized to each patient, simultaneously prioritizing the diagnoses and treatment of multiple complex diseases, patient comfort, and goals of care. No input is required from supervising providers, even for the most complex or unusual of disorders.
O	O	O	O	O	O	O	O	O	O

6. Documentation/Written Communication									
N/O	Documentation in the medical chart is often disorganized or incomplete and may be inaccurate.		Documentation contains most key information, however either omits some data or is organized in a way that is difficult to understand.		Documentation contains all key information in an organized fashion. Notes can be easily followed, however could contain unnecessary details or require expansion by the supervising provider.		Documentation contains all key information organized logically and efficiently. Notes require minimal addition from the supervising provider.		Documentation consistently contains all important information, contains no extraneous information whatsoever, and is organized in a way that is intuitive to all members of the medical team. Notes require no additional attestations from supervising provider, aside from what is required by E/M or legal guidelines.
O	O	O	O	O	O	O	O	O	O

7. Presentation/Oral Communication									
N/O	Presentations are often disorganized or incomplete and may be inaccurate.		Presentations contain some key information, however either omit important data or are organized in a way that is difficult to understand.		Presentations contain almost all of the key information in an organized fashion. Presentations occasionally contain extraneous information; senior members of the team occasionally need clarifying information.		Presentations contain all key information in an organized fashion. Extraneous information is absent.		Presentations are organized and concise. Team members can rely on them for accuracy and to guide the plan of care. Able to utilize multiple different presentation styles depending on both the situation at hand (for example bedside vs hallway presentations) as well as change their presentation style depending on the needs of the supervising provider.
O	O	O	O	O	O	O	O	O	O

8. Identification And Management Of The Acutely Ill									
N/O	Routinely misses vital signs, physical exam findings, or labs concerning for acute decompensation. Unable to initiate basic management plans for the acutely decompensating patient.		Is inconsistently able to identify acutely decompensating patients by their vital signs, physical exam findings, or labs. Could have the medical knowledge of these findings but is unable to consistently put them into clinical practice.		Able to identify common signs of acute decompensation reliably. Able to initiate or continue basic management plans for acutely decompensating patients but continues to require close supervision by senior members of the team.		Able to identify both common and uncommon signs of decompensation. Able to manage situations that require urgent or emergent intervention with minimal supervision.		Consistently identifies patients at high risk of decompensation and anticipates the ways in which such patients might decompensate. Routinely able to identify and manage situations that require urgent or emergent intervention without supervision.
O	O	O	O	O	O	O	O	O	O

9. Subspecialty and Multidisciplinary Consultation									
N/O	APP lacks basic understanding of when and how to consult a subspecialty service. Calls to specialists are disorganized or contain inaccurate information.		Inconsistently able to identify when to consult subspecialty services. Calls to subspecialists contain most of the necessary information, however clinical questions could be vague or show a lack of medical knowledge (ex: routinely consulting an endocrinology service for all patients on insulin). Able to follow through with simple recommendations from consultants.		Able to ask consultants meaningful clinical questions to guide patient care. Able to follow through with simple and complex recommendations from consultants.		Consistently asks high-quality questions on complex topics. Consultants are infrequently called for clinical questions within APP's general scope of practice. Follows through with and learns from consultant recommendations on both simple and complex cases.		Able to critically assess and weigh consultant recommendations against their own plans of care as the primary medical provider. Able to identify and navigate potentially discordant recommendations from multiple consultants.
O	O	O	O	O	O	O	O	O	O

10. Knowledge of Labs, Images, and Procedures									
N/O	Unable to interpret basic laboratory tests accurately. Unable to identify the indications for pursuing basic imaging. Unable to identify the indications and potential risks of common procedures.		Able to identify normal vs. grossly abnormal basic laboratory tests and imaging studies, but unable to reliably interpret their meaning as it relates to patient care. Could understand the basic indications for common procedures, but unable to personalize this to individual patients (ex: ordering an exercise stress test for a patient with angina but who cannot reliably run).		Able to interpret basic laboratory tests accurately. Understands the indications for basic imaging studies. Understands the indications and potential risks of common procedures. Could still require some assistance interpreting tests in a given clinical context.		Able to interpret both basic and complex laboratory tests accurately. Understands the indications for basic and complex imaging studies and can read basic imaging studies. Understands the limitations of laboratory tests and images in clinical contexts (ex: understands the significance of leukocytosis in a patient on glucocorticoids, or understands the significance of a chest X ray reading pneumonia in a patient without cough or evidence of infection). Understands the indications and potential risks of common and uncommon procedures.		Consistently able to accurately interpret the most complex laboratory tests, even in patients with multiple complex diseases that could simultaneously impact those data. Understands the indications for basic and complex imaging studies and can accurately interpret even the most complex imaging studies with minimal assistance. Understands the indications and potential risks of common and uncommon procedures, even in situations of medical complexity.
O	O	O	O	O	O	O	O	O	O

11. Time Management/Reliability									
N/O	Unreliable in completing basic patient care tasks (rounding, order entry, notes) in a reasonable amount of time. Unwilling to ask for help from senior members of the team if overwhelmed.		Able to complete individual tasks in a reasonable amount of time, however cannot reliably multitask in a real-world hospital environment.		Reliably balances day-to-day tasks (rounding, note writing, and order entry). Able to identify and ask for help from senior members of the team if overwhelmed. Could still be working on efficient prioritization and organization of tasks.		Able to balance multiple roles on complex services (participating in family meetings, discussing cases with consultants, holding a team pager, etc.) along with day-to-day tasks in a punctual and reliable fashion. Anticipates the need for additional support from senior members of the team in extreme circumstances and is proactive in advocating for assistance if needed.		Able to role model the prioritization of multiple conflicting demands. Able to anticipate when other team members could require assistance and is able to provide additional support to the team to improve timely and effective patient care.
O	O	O	O	O	O	O	O	O	O

12. Socioeconomic Barriers to Care									
N/O	Lacks awareness of potential socioeconomic barriers to healthcare (ex: insurance status, literacy or health literacy). Fails to consider cost when prescribing medications or initiating a treatment plan.		Inconsistently able to identify potential socioeconomic barriers to care, or is inconsistently able to adjust basic management plans in the setting of said barriers.		Able to identify common socioeconomic barriers to care. Able to adjust basic management plans to accommodate common socioeconomic barriers to care		Able to identify both common and uncommon socioeconomic barriers to care. Able to adjust most management plans to accommodate both common and uncommon socioeconomic barriers to care.		Role models the identification of socioeconomic barriers to care to other team members. Collaborates with patients of diverse backgrounds to create customized care plans, regardless of their needs or the complexity of their medical problems.
O	O	O	O	O	O	O	O	O	O

13. Patient Interview									
N/O	Is disrespectful to patients, interrupts frequently, or fails to consider patient privacy or autonomy during interviews. Uses medical jargon to the detriment of the patient interview.		Attempts to communicate with the patient, however is often unsuccessful. Could be continuing to work on basic communication skills such as active listening, guided questioning, empathetic responses, etc.		Able to communicate effectively and utilizes skills such as active listening and open ended questions. Could still be working on efficiency, organization, and modifying language to the individual needs of the patient.		Able to establish rapport with most patients with ease. Routinely able to set the agenda for the interview and empower the patient to tell their story. Uses both verbal as well as non-verbal communication effectively.		Seamlessly able to adapt their communication strategies to the unique needs of their patients, including but not limited to the confused patient, the angry or disruptive patient, or the patient with low health literacy. Routinely able to redirect patient interviews when needed while simultaneously maintaining rapport. Models complex communication skills (ex: teach-backs) to other members of the care team.
O	O	O	O	O	O	O	O	O	O

14. Patient and Family Discussions									
N/O	Unable to explain basic plans of care to the patient or family. Refuses to participate in family discussions or difficult conversations.		Able to have limited discussions on simple topics, however cannot reliably answer questions or provide education on uncommon or complex conditions. Comfortable observing difficult conversations, but does not have the skills required to meaningfully participate.		Able to summarize the plan of care to patients and families and answer basic questions with minimal jargon. Able to provide education and counselling on common and uncommon medical conditions. Participates in difficult conversations with support from senior members of the team.		Able to facilitate discussions on common and uncommon medical conditions with minimal support from senior members of the team. Able to facilitate discussions on complex topics, or facilitate difficult conversations, with minimal support from senior member of the team.		Independently facilitates educational discussions on complex topics with patients and family members at their level of understanding. Consistently able to promote shared decision making among all interested parties. Able to independently deliver bad news or lead goals of care discussions in a humanistic, patient-centere d fashion.
O	O	O	O	O	O	O	O	O	O

15. Unique Patient Characteristics									
N/O	Is insensitive to patient's unique characteristics such as gender, race, ethnicity, religion, age, etc. Is unable or unwilling to alter management plans based on patient characteristics.		Demonstrates inconsistent awareness of patient's unique characteristics. Attempts to modify management plans are made, however are often not successful		Demonstrates awareness of patient's unique characteristics. Developing sensitivity and understanding of how different patient populations have unique needs in and out of the hospital. Able to modify the care plan based on a patient's unique characteristics or needs with assistance from senior members of the team.		Routinely demonstrates compassion and sensitivity for a patient's unique characteristics or needs. Able to individualize care plans for common conditions independently.		Role models sensitivity and flexibility in adapting care plans to individual patient's unique characteristics or needs. Able to anticipate and proactively modify complex care plans based on a patient's unique characteristics or needs.
O	O	O	O	O	O	O	O	O	O

16. Collaborating with a Multidisciplinary Team									
N/O	Unable or unwilling to participate with or incorporate input from members of the multidisciplinary team including but not limited to pharmacists, nurses, social workers, or case managers. Interactions with the multidisciplinary team are disrespectful or otherwise unprofessional.		Understands the general roles of members of the multidisciplinary team, but is inconsistently able to engage with them to improve patient care.		Understands the specific roles of the members of the multidisciplinary care team and is able to engage with them to improve patient care on routine issues. Interactions with members of the multidisciplinary team are professional.		Able to collaborate with all members of the multidisciplinary care team in both routine and unusual cases in order to improve patient care. Is able to easily explain the various roles of multidisciplinary team members to the patient.		Able to creatively collaborate with the multidisciplinary team to improve patient care in the most unusual, complex, or difficult cases. Routinely anticipates patient care needs that would benefit from intervention by members of the multidisciplinary team and works proactively with them. Is able to easily explain the various roles of multidisciplinary team members to the patient.
O	O	O	O	O	O	O	O	O	O

17. Self-Improvement									
N/O	Ignores or is defensive when receiving feedback. Unable or unwilling to identify areas for potential professional growth.		Understands the limitations of their skills, however is inconsistent with incorporating constructive feedback.		Understands limitations of their skills and seeks help when needed. Routinely incorporates constructive feedback to improve their skillsets.		Participates in self-reflection in their practice and uses this self-reflection to improve their skillset. Recognizes areas of improvement as opportunities to for future growth.		Participates in self-directed learning and independently seeks opportunities for future growth. Seeks out feedback as an opportunity for continued growth. Acts as a role model for others in self-reflection and lifelong learning.
O	O	O	O	O	O	O	O	O	O

Appendix B

APP 360° Clinical Competence Pre-Instrument Survey

Thank you for participating in the pre-CHAPP-RA clinical competence survey.

Definitions:

Active practice: activities that are performed that are consistent with the scope of practice for an advanced practice provider.

Attending physician: DO/MD who has completed medical training and is the primary physician responsible for providing guidance to the APPs on the medical care of hospitalized patients including patient care and making treatment decisions.

Peer: someone of the same rank and clinical expertise while performing a similar role.

*Required

1. Please indicate your total number of years of **active practice** as an advance practice provider.

   Active practice is defined as activities that are performed that are consistent with the scope of practice for an advance practice provider. *

   ☐ Less than 2 years
   ☐ 2 to not more than 5 years
   ☐ 5+ years

2. Please specify the current certification(s) you hold for your advance practice role. *

   ☐ Family Nurse Practitioner
   ☐ Physician Assistant
   ☐ PNP - Acute Care
   ☐ PNP - Primary Care

3. Please indicate your primary work area.

   Primary work area is your daily role, accounting for >51% of your FTE. *

   ☐ Ambulatory (ex: same day surgery, convenient/urgent care, clinic, emergency room)
   ☐ Inpatient (ex: ICU, acute medical/surgical)

4. Inpatient Team

- ☐ Hospitalist
- ☐ Heme/Onc
- ☐ CICU
- ☐ NICU
- ☐ PICU
- ☐ Other inpatient team (ex: AIM, PACT, Ortho)

5. Do you have knowledge of the methods utilized to assess your clinical competence?

- ☐ Yes
- ☐ No

6. Do you have knowledge of how often your clinical competence is evaluated?

- ☐ Yes
- ☐ No

7. Do you have knowledge of the relationship between your clinical competence and the granting (and maintaining) of hospital privileges?

- ☐ Yes
- ☐ No

8. How often do you receive direct feedback from your peers?

Peer is defined as someone of the same rank and clinical expertise while performing a similar role. *

- ☐ At least once per shift
- ☐ At least once per week
- ☐ At least once per month
- ☐ At least twice per year
- ☐ At least once per year
- ☐ Never

9. When was the last time you received peer feedback?

- ☐ Within the past week
- ☐ Over a week ago, but within the past month
- ☐ Over a month ago, but less than 6 months ago
- ☐ Over 6 months ago, but less than a year ago
- ☐ Over a year ago

10. Thinking back to when you received peer feedback, by which method was the feedback given to you?

- ☐ In person
- ☐ Electronic (email, text)
- ☐ Through another person (peer, supervisor, physician)

11. How well did you receive the peer feedback?

- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

12. Did you change your practice based on peer feedback?

- ☐ Yes
- ☐ No

13. How comfortable are you giving peer feedback to another APP who is not in orientation?

- ☐ Very uncomfortable
- ☐ Uncomfortable
- ☐ Comfortable
- ☐ Very comfortable

14. How often do you receive attending physician feedback?

Attending physician: DO/MD who has completed medical training and is the primary physician responsible for providing guidance to the APPs on the medical care of hospitalized patients including patient care and making treatment decisions. *

- ☐ At least once per shift
- ☐ At least once per week
- ☐ At least once per month
- ☐ At least twice per year
- ☐ At least once per year
- ☐ Never

15. When was the last time you received attending physician feedback?

- ☐ Within the past week
- ☐ Over a week ago, but within the past month
- ☐ Over a month ago, but less than 6 months ago
- ☐ Over 6 months ago, but less than a year ago

- ☐ Over a year ago

16. How well did you receive the attending physician feedback?

- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

17. Thinking back to when you received attending physician feedback, by which method was the feedback given to you?

- ☐ In person
- ☐ Electronic (email, text)
- ☐ Through another person (peer, supervisor, physician)

18. Did you change your practice based on attending physician feedback?

- ☐ Yes
- ☐ No

Appendix C

Physician 360° Clinical Competence Pre-Instrument Survey

Thank you for participating in the pre-CHAPP-RA clinical competence survey.

Definitions:

Active practice is defined as activities that are performed that are consistent with the scope of practice for an attending physician.

Advance practice provider (APP): Refers to licensed, non-physician providers, including physician assistants (PA), nurse practitioners (NP), and clinical nurse specialists (CNS) who can be front line providers for the delivery of health care services.

Collaborative practice agreement (CPA): Refers to a written agreement between the APP and physician (DO/MD) of jointly agreed upon standing orders and/or protocols for the delivery of health care services.

Ongoing Professional Practice Evaluation (OPPE): professional evaluation, performed at least every 8 months, to identify and measure competency performance trends.

*Required

1. Please indicate your total number of years of **active practice** as an attending physician.

Active practice is defined as activities that are performed that are consistent with the scope of practice for an attending physician.*

- ☐ Less than 2 years
- ☐ 2 to not more than 5 years
- ☐ 5+ years

2. Please indicate the number of years you have had direct oversight of APPs during clinical practice as an attending physician.*

- ☐ Less than 2 years
- ☐ 2 to not more than 5 years
- ☐ 5+ years

3. Please indicate your primary work area.

Primary work area is your daily role, accounting for >51% of your FTE. *

- ☐ Ambulatory (ex: same day surgery, convenient/urgent care, clinic, emergency room)
- ☐ Inpatient (ex: ICU, acute medical/surgical)

4. Inpatient Team

- ☐ Hospitalist
- ☐ Heme/Onc
- ☐ CICU
- ☐ NICU
- ☐ PICU
- ☐ Other inpatient team (ex: AIM, PACT, Ortho)

5. Do you have knowledge of the **methods** utilized to assess APPclinical competence?

- ☐ Yes
- ☐ No

6. Do you have knowledge of **how often** APP clinical competence is evaluated?

- ☐ Yes
- ☐ No

7. Do you have knowledge of the **relationship between** APP clinical competence and the granting (and maintaining) of hospital privileges?

- ☐ Yes
- ☐ No

8. Are you in a collaborative practice agreement (CPA) with an APP in any setting? *

- ☐ Yes
- ☐ No

9. Which methods do you utilize to evaluate your collaborating APP for OPPE? (multiple answer)

- ☐ Direct observation
- ☐ Chart Review
- ☐ Feedback (peer, APP supervisor, another attending physician)

10. For the remaining questions, think back to when you worked clinically with an APP.

How often do you give feedback to the **APP**? *

- ☐ At least once per shift
- ☐ At least once per week
- ☐ At least once per month

- ☐ At least twice per year
- ☐ At least once per year
- ☐ Never

11. When was the last time you gave **APP** feedback?

- ☐ Within the past week
- ☐ Over a week ago, but within the past month
- ☐ Over a month ago, but less than 6 months ago
- ☐ Over 6 months ago, but less than a year ago
- ☐ Over a year ago

12. Thinking back to when you gave **APP** feedback, by which method was the feedback given to you?

- ☐ In person
- ☐ Electronic (email, text)
- ☐ Through another person (peer, supervisor, physician)

13. How well did the APP receive your feedback?

- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

14. Did you notice the APP changed their practice based on **your** feedback?

- ☐ Yes
- ☐ No

15. How comfortable are **you** giving APP feedback to an APP who is not in orientation?

- ☐ Very uncomfortable
- ☐ Uncomfortable
- ☐ Comfortable
- ☐ Very comfortable

Appendix D

APP 360° Clinical Competence Post-Instrument Survey

Thank you for participating in the post-CHAPP-RA clinical competence survey.

Definitions:

Active practice: activities that are performed that are consistent with the scope of practice for an advanced practice provider.

Attending physician: DO/MD who has completed medical training and is the primary physician responsible for providing guidance to the APPs on the medical care of hospitalized patients including patient care and making treatment decisions.

Peer: someone of the same rank and clinical expertise while performing a similar role.

*Required

1. Please indicate your total number of years of **active practice** as an advance practice provider.

Active practice is defined as activities that are performed that are consistent with the scope of practice for an advance practice provider. *

- ☐ Less than 2 years
- ☐ 2 to not more than 5 years
- ☐ 5+ years

2. Indicate current certification(s) for your advance practice role. *

- ☐ Family Nurse Practitioner
- ☐ Physician Assistant
- ☐ Pediatric Nurse Practitioner - Acute Care
- ☐ Pediatric Nurse Practitioner - Primary Care

3. Do you have knowledge of the **methods** utilized to assess your clinical competence?

- ☐ Yes
- ☐ No

4. Do you have knowledge of **how often** your clinical competence is evaluated?

- ☐ Yes

- ☐ No

5. Do you have knowledge of the **relationship between** your clinical competence and the granting (and maintaining) of hospital privileges?

- ☐ Yes
- ☐ No

6. How often do you receive direct feedback from your **peers**?

Peer is defined as someone of the same rank and clinical expertise while performing a similar role. *

- ☐ At least once per shift
- ☐ At least once per week
- ☐ At least once per month
- ☐ At least twice per year
- ☐ At least once per year
- ☐ Never

7. When was the last time you received **peer** feedback?

- ☐ Within the past week
- ☐ Over a week ago, but within the past month
- ☐ Over a month ago, but less than 6 months ago
- ☐ Over 6 months ago, but less than a year ago
- ☐ Over a year ago

8. Thinking back to when you received **peer** feedback, by which method was the feedback given to you?

- ☐ In person
- ☐ Electronic (email, text)
- ☐ Through another person (peer, supervisor, physician)

9. How well did you receive the **peer** feedback?

- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

10. How often do you receive **attending physician** feedback?

Attending physician: DO/MD who has completed medical training and is the primary physician responsible for providing guidance to the APPs on the medical care of hospitalized patients including patient care and making treatment decisions. *

- ☐ At least once per shift
- ☐ At least once per week
- ☐ At least once per month
- ☐ At least twice per year
- ☐ At least once per year
- ☐ Never

11. When was the last time you received attending **physician** feedback?

- ☐ Within the past week
- ☐ Over a week ago, but within the past month
- ☐ Over a month ago, but less than 6 months ago
- ☐ Over 6 months ago, but less than a year ago
- ☐ Over a year ago

12. Thinking back to when you received **physician** feedback, by which method was the feedback given to you?

- ☐ In person
- ☐ Electronic (email, text)
- ☐ Through another person (peer, supervisor, physician)

13. How well did you receive the **physician** feedback?

- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

14. Have you utilized the CHAPP-RA tool to assess a peer?

- ☐ Yes
- ☐ No

15. How well did the CHAPP-RA tool assess the competency of the APP peer you were evaluating?

- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

16. How user-friendly was the CHAPP-RA tool to navigate?

- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

17. Did you change your practice based on your CHAPP-RA results?

- ☐ Yes
- ☐ No

18. How comfortable are **you** giving peer feedback to another APP who is not in orientation?

- ☐ Very uncomfortable
- ☐ Uncomfortable
- ☐ Comfortable
- ☐ Very comfortable

Appendix E

Physician 360° Clinical Competence Post-Instrument Survey

Thank you for participating in the pre-CHAPP-RA clinical competence survey.

Definitions:

Active practice is defined as activities that are performed that are consistent with the scope of practice for an attending physician.

Advance practice provider (APP): Refers to licensed, non-physician providers, including physician assistants (PA), nurse practitioners (NP), and clinical nurse specialists (CNS) who can be front line providers for the delivery of health care services.

Collaborative practice agreement (CPA): Refers to a written agreement between the APP and physician (DO/MD) of jointly agreed upon standing orders and/or protocols for the delivery of health care services.

Ongoing Professional Practice Evaluation (OPPE): professional evaluation, performed at least every 8 months, to identify and measure competency performance trends.

*Required

1. Please indicate your total number of years of **active practice** as an attending physician.

Active practice is defined as activities that are performed that are consistent with the scope of practice for an attending physician.*

- ☐ Less than 2 years
- ☐ 2 to not more than 5 years
- ☐ 5+ years

2. Please indicate the number of years you have had direct oversight of APPs during clinical practice as an attending physician.*

- ☐ Less than 2 years
- ☐ 2 to not more than 5 years
- ☐ 5+ years

3. Do you have knowledge of the **methods** utilized to assess APP clinical competence?

- ☐ Yes
- ☐ No

4. Do you have knowledge of **how often** APP clinical competence is evaluated?

- ☐ Yes

- ☐ No

5. Do you have knowledge of the **relationship between** APP clinical competence and the granting (and maintaining) of hospital privileges?

- ☐ Yes
- ☐ No

6. Are you in a collaborative practice agreement (CPA) with an APP in any setting? *

- ☐ Yes
- ☐ No

7. Which methods do you utilize to evaluate your collaborating APP for OPPE? (multiple answer)

- ☐ Direct observation
- ☐ Chart Review
- ☐ Feedback (peer, APP supervisor, another attending physician)

8. For the remaining questions, think back to when you worked clinically with an APP.

How often do you give feedback to the **APP**? *

- ☐ At least once per shift
- ☐ At least once per week
- ☐ At least once per month
- ☐ At least twice per year
- ☐ At least once per year
- ☐ Never

9. When was the last time you gave **APP** feedback?

- ☐ Within the past week
- ☐ Over a week ago, but within the past month
- ☐ Over a month ago, but less than 6 months ago
- ☐ Over 6 months ago, but less than a year ago
- ☐ Over a year ago

10. Thinking back to when you gave **APP** feedback, by which method was the feedback given to you?

- ☐ In person
- ☐ Electronic (email, text)
- ☐ Through another person (peer, supervisor, physician)

11. Have you utilized the CHAPP-RA tool to assess an APP?

- ☐ Yes
- ☐ No

12. How well did the CHAPP-RA tool assess the competency of the APP you were evaluating?

- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

13. How user-friendly was the CHAPP-RA tool to navigate?

- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

14. How well did the APP receive your feedback?

- ☐ Poor
- ☐ Fair
- ☐ Good
- ☐ Excellent

15. Did you notice the APP changed their practice based on **your** feedback?

- ☐ Yes
- ☐ No

16. How comfortable are **you** giving APP feedback to an APP who is not in orientation?

- ☐ Very uncomfortable
- ☐ Uncomfortable
- ☐ Comfortable
- ☐ Very comfortable

Appendix F

Table 1

Demographic Characteristics of Survey Participants

Baseline Demographics	APP Pre		APP Post		Attending Pre		Attending Post	
	n	%	*n*	%	*n*	%	*n*	%
Years of Active Practice								
Less than 2 years	1	16.67	1	25	0	0	0	0
2 to not more than 5 years	2	33.33	3	75	3	30	2	33.33
5+years	3	50	0	0	7	70	4	66.67
Primary Work Area								
Ambulatory	1	16.67	0	0	1	16.67	1	16.67
Inpatient	5	83.33	4	100	5	83.33	5	83.33
Certification Type								
FNP	1	16.67	0	0				
PNP-AC	1	16.67	1	25				
PNP-PC	4	66.67	3	75				
Attending Years of APP Oversight								
Less than 2					2	20	1	16.67
2, not more than 5yrs					4	40	2	33.33
5+ years					4	40	3	50
CPA with APP								
Yes					8	80	5	83.33
No					2	20	1	16.67

Note. Due to rounding errors, percentages may not equal 100%.

Appendix G

Table 2

Frequency Table for Awareness of Privileges by Provider Type

Variable	APP Pre		APP Post		Attending Pre		Attending Post		*p*
	n	%	*n*	%	*n*	%	*n*	%	
Methods used to assess APP									
Yes	4	66.67	3	75	3	30	3	50	1.000
No	2	33.33	1	25	7	70	3	50	
How often APPs are evaluated									
Yes	4	66.67	3	75	4	40	2	33.33	1.000
No	2	33.33	1	25	6	60	4	66.67	
Relationship between competence and privileges									
Yes	3	50	3	75	7	70	4	66.67	1.000
No	3	50	1	25	3	30	2	33.33	

Appendix H

Table 3

Relationship Between Feedback Receptiveness

	How well did you receive peer feedback?				
How well did you receive attending feedback?	Good	Excellent	χ2	df	p
Fair	1[0.80]	0[0.20]	10	2	.022
Good	7[5.60]	0[1.40]			
Excellent	0[1.60]	2[0.40]			

Note. Values formatted as Observed[Expected].

Table 4

Peer Comfort Giving and Receiving Feedback

	Peer comfort giving feedback			
How well did you receive peer feedback?	Uncomfortable	Comfortable	OR	*p*
Good	4[1.54]	4[1.54]	1	1
Excellent	1[0.38]	1[0.38]		

Note. Values formatted as Observed[Expected].

Appendix I

Table 5

Analysis of Variance Table for Changed Practice Based on Peer Feedback

Term	*SS*	*df*	*F*	*p*	ηp2
Survey_Type	0.15	1	0.53	0.486	0.06
Residuals	2.25	8			

Table 6

Mean, Standard Deviation, and Sample Size for Changed Practice Based on Peer Feedback

Participant	*n*	*M*	*SD*
APP Pre	6	1.5	0.55
APP Post	4	1.25	0.5

Note. A '-' indicates the sample size was too small for the statistic to be calculated.

Table 7

Analysis of Variance Table for Changed Practice Based on Attending Feedback

Term	*SS*	*df*	*F*	*p*	ηp2
Survey_Type	0.02	1	0.06	0.807	0.01
Residuals	2.08	8			

Table 8

Mean, Standard Deviation, and Sample Size for Changed Practice Based on Attending Feedback

Participant	*n*	*M*	*SD*
APP Pre	6	1.33	0.52
APP Post	4	1.25	0.5

Note. A '-' indicates the sample size was too small for the statistic to be calculated.

Table 9

Frequency Table for APP Changed Practice Based on Peer Feedback

	Pre		Post	
Variable	*n*	*%*	*n*	*%*
Yes, changed practice	3	50	3	75
No, did not change practice	3	50	1	25

Table 10

Frequency Table for APP Changed Practice Based on Attending Feedback

	Pre		Post	
Variable	*n*	*%*	*n*	*%*
Yes, changed practice	4	66.67	3	75
No, did not change practice	2	33.33	1	25

Appendix J

Table 11

Analysis of Variance Table for Peer Comfort Giving Peer Feedback

Term	*SS*	*df*	*F*	*p*	*ηp2*
Survey_Type	0	1	0	1	0
Residuals	2.5	8			

Table 12

Mean, Standard Deviation, and Sample Size for Peer Comfort Giving Peer Feedback

Combination	*n*	*M*	*SD*
APP Pre	6	2.5	0.55
APP Post	4	2.5	0.58

Appendix K

Table 13

Relationship between feedback receptiveness and changing practice based on peer feedback

	Practice Changed Based on Peer Feedback		
How well did you receive peer feedback?	Yes	No	*p*
Good	4[1.85]	4[1.23]	0.467
Excellent	2[0.46]	0[0.31]	

Note. Values formatted as Observed[Expected].

Table 14

Relationship between feedback receptiveness and changing practice based on attending feedback

	Practice Changed Based on Attending Feedback		
How well did you receive attending feedback?	Yes	No	*p*
Fair	1[0.27]	0[0.12]	0.65
Good	4[1.88]	0[0.81]	
Excellent	2[0.54]	0[0.23]	

Note. Values formatted as Observed[Expected].

Table 15

Frequency Table for APP Acceptance of Peer Feedback

Response	Pre		Post	
	n	%	*n*	%
Good	5	83.33	3	75
Excellent	1	16.67	1	25

Table 16

Frequency Table for APP Acceptance of Attending Feedback

Response	Pre		Post	
	n	%	*n*	%
Fair	0	0	1	25
Good	3	75	2	50
Excellent	1	25	1	25

Appendix L

Table 17

Frequency Table for CHAPP-RA Surveys Sent

Participant	1st Six Weeks				2nd Six Weeks			
	Sent	Complete	Incomplete	%	Sent	Complete	Incomplete	%
Peer	41	19	3	46.3	38	16	2	42.1
Physician	43	28	2	65.1	34	21	0	61.7
Self	18	9	2[a]	50	0	1	0	n/a

Note. Percentage reflects participants' completion, excluding incomplete surveys.
[a] One participant responded twice to a self survey and one was incomplete.