administrative angles

Associate Editors: **Jennifer Graebe, MSN, RN, NEA-BC**
Sheri Cosme, DNP, RN, NPD-BC
Authors: **Kathy Casey, PhD, RN, NPD-BC; and Sheri Cosme, DNP, RN, NPD-BC**

Measuring Nurse Residency Program Outcomes: Selecting the Right Tool

abstract

Nursing professional development practitioners are critical to nurse residency program (NRP) development, implementation, and evaluation. Conducting a program evaluation provides an opportunity to collect and analyze data on identified goals and outcome measures and determine if the program components need to modified or changed. Health care organizations need a systematic process for evaluating NRPs to ensure effectiveness of program delivery, provide evidence to demonstrate program value to the organization, report achievement of program outcomes, and for continuous quality improvement. With the growing importance of offering high-quality NRPs, nurses in professional development must critically consider the type of data required to demonstrate program value and use the best tools to collect outcome data. This article discusses a variety of data collection tools that can be selected to measure NRP outcomes. **[*J Contin Educ Nurs*. 2022;53(9):389-392.]**

O utcome measurement enables nursing professional development (NPD) prac-

titioners to evaluate evidence and determine whether educational activities closed the identified gaps in nurses' knowledge, skill, and/or practice needs (Pepsnik, 2017). In March 2022, the Association for Nursing Professional Development (ANPD) released the fourth edition of *Nursing Professional Development: Scope and Standards of Practice* (Harper & Maloney, 2022). Standard 6 addresses program evaluation, which is summarized to include:

- the expectation that nurses in professional development roles will formulate an evaluation plan;
- use reliable and valid instruments to measure behavior change and measure outcomes;
- involve learner and stakeholders in the evaluation process;
- synthesize evaluation data to guide decision making about educational programming;
- revise learning activities based on evaluation data;
- disseminate evaluation results of learning activities; and
- determine program impact and value based on achieved outcomes.

Use of nurse residency program (NRP) accreditation criteria as an evaluation framework is one strategy to help guide NPD practitioners to design, implement, and evaluate NRPs. The American Nurses Cre-

dentialing Center's (ANCC) Nursing Continuing Professional Development (NCPD) Program and Practice Transition Accreditation Program® (PTAP) accreditation standards state organizations and programs must operationalize the use of SMART goals and outcome measures. Through having clear educational or programmatic goals, the NPD practitioner is creating what we like to consider the "North Star," or what the educational or programmatic offering is hoping to achieve. It is vital that NPD practitioners know how to create quantifiable goals and outcome measures.

SMART format requires the goal to be specific, measurable, achievable, relevant, and time bound. For every goal, an outcome measure needs to be identified to determine if the SMART goal was met or not met. Outcome measures need to be logical and connect to the intended SMART goal. Within the ANCC PTAP standards, NRPs are expected to create four SMART goals and associated outcome measures in specified categories (Quality Outcomes Supporting Documentation 1 [QO SD 1]; ANCC, 2020). Outcomes are statements that describe the overall goal or desired results for participants at the end of the program. They must be quantifiable and able to be measured, and are based on practice gaps, learning needs, or underlying goals of the program (Schumacher et al., 2018).

ESTABLISH A SYSTEMATIC PLAN

Establishing a systematic process for collecting data, using a variety of

Kathy Casey, PhD, RN, NPD-BC, is Nurse Residency Program Coordinator, Denver Health, Denver, Colorado. Sheri Cosme, DNP, RN, NPD-BC, is Director, ANCC Practice Transition Accreditation Program® (PTAP), American Nurses Credentialing Center, Silver Spring, Maryland.

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Address correspondence to Kathy Casey, PhD, RN, NPD-BC; email: Kathryn.Casey@dhha.org.

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TABLE 1

TYPES OF TOOLS USED TO COLLECT DATA

Tool	Use
Survey	Collects data about an identified population
	May be used with a large sample
	Convenient for participants to complete
	May be anonymous
	Low cost to implement
	Examples: learning needs assessments, published surveys
Focus group	Collects multiple viewpoints on a specific topic
	Asks about perspectives from more than one participant at a time
	Uses content analysis to examine common themes about the program
Interview	Structured or unstructured communication in which information is gathered
	Allows flexible questions, can clarify responses, and can receive instant feedback
Test, quiz	Measures learning outcomes such as knowledge gained or identifies gaps in knowledge
Class evaluation (formative data)	Collects feedback at the time of the teaching activity
	Gathered during classroom or simulation activity
	Data are used to assess teaching methods and learning to revise content
	Collection methods can be paper/pencil, gamification, journaling, or audience response platforms
End-of-program survey (summative data)	Data are collected at the end of the program
	Focuses on feedback from the consumers of the program
	Intended to solicit input on the perceptions of overall satisfaction and effectiveness of the program from multiple stakeholders

Note. Adapted from Oermann, M. H. (2017). *A systematic approach to assessment and evaluation of nursing programs.* National League for Nursing.

tools, is critical for making informed decisions about program improvements and in demonstrating value to the organization. NPD practitioners face many choices about data collection, as they rely on quality data to make programmatic decisions. Defining the purpose and reasons to collect data is important. Often, data collection decisions are influenced by external factors, such as residency program accreditation criteria, or internal factors, such as organization or stakeholder requirements to collect specific information to support strategic goals (Shellenbarger, 2017). NPD practitioners need to consider what data are already available in the organization. If no data are available, tools and other strategies will need to be developed to provide the essential data. The following questions can be helpful in creating a data collection plan/tool to gather meaningful data:

- Who will collect the data?
- What is the target audience (i.e., graduate nurses or stakeholders)?
- What data are currently available for use (i.e., human resource databases)?
- What is the time frame for data collection (best to have a minimum of two time periods to measure change in scores over time)?
- Is institutional review board (IRB) approval needed?

Gathering feedback and data from program stakeholders is critical to evaluating the impact of the program on the organization and in measuring outcomes. In summary, formulating a systematic evaluation plan reflects creating processes and tools designed to measure defined program goals and outcomes.

SELECTION OF THE TYPES OF TOOLS TO MEASURE OUTCOMES

There are a variety of tools for obtaining data to identify practice gaps, design program curriculum content, plan learning activities, support continuous quality improvement to achieve program outcomes, collect feedback from stakeholders, and measure changes in program participants. In the broadest sense, data are either quantitative (displayed as numbers) or qualitative (displayed as words), depending on how they are measured (Pepsnik, 2017). Examples of tools used to measure outcomes are included in **Table 1**.

Select Reliable and Valid Tools

Surveys are tools that can be used to gather information from groups of people. These tools can vary widely in terms of the purpose for which they were designed, the population they were developed for, the concepts being measured, and the manner in which they are scored. To measure outcomes of education activities, evaluation tools must be reliable, valid, and meaningful (Pepsnik, 2017). ANCC PTAP accreditation standards encourage programs to use current, reliable, and valid evaluation methods to demonstrate program quality and measure outcomes (ANCC, 2015). An appropriate selection of measurement tools and the extent to which their reliability and validity are demonstrated have a profound influence on the strength of the findings.

When selecting a published survey tool for data collection, NPD prac-

titioners must have an understanding of the population for which the survey tool was designed and the psychometric properties of the survey tool. A psychometric assessment is an evaluation of the quality of the survey tool in which the measurement properties (i.e., its reliability, validity, and responsiveness) are estimated (Polit & Yang, 2016). Using a valid and reliable survey tool enables health care organizations to compare their results with those of other organizations using the same population of interest. Reliability is the ability of a survey tool to measure the attributes of a concept or construct consistently (LoBiondo-Wood & Haber, 2018). Validity is the extent to which a survey tool measures the attributes of a concept accurately (LoBiondo-Wood & Haber, 2018).

Considerations in Survey Use

When using a published survey as a measurement tool, it is crucial to read the entire survey for clarity of item wording, assess its appropriateness for use, and review length of time for completion. Questions to ask when considering a survey to use include:

- What target population was studied in the survey development process?
- What concepts are being measured in the survey?
- Is the author(s) contact information provided to obtain permission for use?
- Are there scoring instructions? Are they easy to follow?
- Is the tool free or is there a charge for use?
- Are demographic data collected?
- Is the survey's cited internal consistency (Cronbach's alpha) acceptable?
- Is this a self-report survey?
- How will the confidentiality of participant data be protected?
- Are there published benchmarks to compare data with similar programs?

In published studies, the survey most frequently used to measure outcomes related to graduate nurse self-reported perceptions of the transition to practice experience is the Casey-Fink Graduate Nurse Experience Survey (Casey et al., 2004; Stephenson & Cosme, 2018). Section II of this survey has 24 questions that measure five concepts (subscales) of role transition. The five subscales include multiple questions which measure (1) support, (2) organizing/prioritizing, (3) stress, (4) communication/leadership, and (5) professional satisfaction. A summary score (all 24 questions as one subscale) measures role confidence. A single question in section II cannot be used on its own to score an outcome measure as the survey uses multiple questions to appraise various attributes of the concept of interest. Surveys commonly used in NRP outcome measurement are listed in **Table 2**.

Data Collection Platforms and Data Analysis

There are a variety of data collection platforms currently used. These include SurveyMonkey, RedCAP, Qualtrics, and Google Forms. The benefits of these platforms include ease of distribution to participants using online links or QR codes. Data can also be collected using paper and pencil methods during classroom activities. The data collected should then be analyzed to demonstrate and visualize a clear understanding of program outcomes. Excel and SPSS are common data analytics programs for tabulating results. It is important to consider calculating survey participant response rates and offering incentives to encourage survey completion.

BARRIERS TO MEASURING PROGRAM OUTCOMES

Many programs encounter barriers to implementing data collection plans and the analysis of data to measure outcomes. Potential barriers include time constraints and minimal

funding for data analytic resources. Additionally, NPD practitioners may lack necessary skills for data analysis or may not have access to a statistician. The organization may not view program evaluation as a priority, or there may not be a structure to report program outcomes data. Maintaining a proactive approach to measuring educational activities includes anticipating organizational barriers, involving stakeholders in program planning, partnering with academic nursing institutions for statistical resources, and remaining flexible and creative when responding to the demands of a rapidly changing health care environment.

CONCLUSION

NRPs should have defined SMART goals and measurable outcomes attached to each goal. A variety of tools can be used to collect data and for assessment of program outcomes. Data collected need to be shared with organizational stakeholders, program participants, and academic nursing programs associated with the NRP to strengthen partnership relationships and to foster ongoing dialogue for program improvements. Evaluation of NRPs is an integral part of improving the quality and effectiveness of these educational programs and meeting organizational needs. With the current financial strain on health care organizations, demonstrating NRP value and measuring program effectiveness matter.

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TABLE 2

SURVEYS COMMONLY USED TO MEASURE THE OUTCOMES OF NURSE RESIDENCY PROGRAMS

Survey	Concept(s) measured	Number of items
Casey-Fink Graduate Nurse Experience Survey Casey et al. (2004) Subscales: Organizing/prioritizing Professional satisfaction Communication/leadership Support Stress	Graduate nurses' perceptions of role transition factors during the first 12 months of professional practice	24
Clinical Nurse Transition Program Evaluation Tool Seimetz (2019)	External evaluation of the effectiveness of nurse transition program in U.S. Army	30
Evidence-Based Practice Self-Efficacy Scale Tucker et al. (2009)	Self-reported confidence in evidence-based practice skills	17
Halfer-Graf Job/Work Environment Nurse Satisfaction Survey Halfer and Graf (2006)	Job and work satisfaction	5
McCloskey Mueller Satisfaction Scale Mueller and McCloskey (1990)	Resident job satisfaction	31
Nurse Residency Program Stakeholder Evaluation Survey Failla et al. (2021)	Stakeholder (i.e., chief nursing officers, directors, managers, clinical nurse specialists, preceptors) satisfaction with nurse residency program	43
Spector Preceptor Evaluation Spector et al. (2015)	Evaluates the preceptor experience from the perspective of the preceptor and newly licensed registered nurse	23

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