A Pilot Test of the Oncology Research Nurse Workload Assessment Tool (ORN-WAT)

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BACKGROUND and PURPOSE

The oncology research nurse (ORN) is an integral member of the clinical research team in every comprehensive cancer center. A multidisciplinary team ensures that clinical research is conducted in a safe and effective manner. The ORN is considered to be a highly specialized, but under-recognized, facet of nursing. There is a striking lack of role definition and lack of a specialty certification within both the clinical research and nursing communities. Few publications address this specialty of nursing. Without empirical data, it is difficult to effectively hire, train, and assign and manage the workload of the ORN.

The Nursing Role Effectiveness Model® and concepts from Activity Based Costing1,2 are relevant frameworks, together with the work done by the Oncology Nursing Society (ONS)3, Castro4, Roche5, and Gwede7,8 which provided the basis for our interest in this project. The literature is clearly evident of the vast responsibilities and time intensity required by the multidisciplinary team to implement a clinical research trial.

Several studies have been conducted attempting to calculate time spent on the orchestration of a clinical research. Many of them were able to identify the factors (i.e. time consuming tasks) contributing to the workload required to coordinate a clinical trial however none of them were successful in creating a tool to quantify workload6,11. Activity Based Costing is a method used which associates a cost for an individual activity. It has only recently been applied in the healthcare setting4,11,13. Considering there are common tasks required to implement a clinical study, we chose to utilize this concept in the creation of our tool. For the purposes of this trial, we focused on the specialty of the oncology research nurse. Over the past two years, special interest groups from the ONS have worked to identify and establish the dimensions of the role of a clinical trial research nurse. At the International Association of Clinical Research Nurses (IACRN) conference in 2009, Castro presented the framework of the domains of a clinical trials nurse. This year, ONS created the first nationally recognized competency for oncology research nurses. Taking this work into account, in combination with common tasks identified by referenced research studies, we created a comprehensive list of activity-based tasks that were inherent to conducting a clinical research study and assigned a value to each of the guidelines of the dimensions of an ORN as established by ONS.

The purpose of this study was to develop and test the Oncology Research Nurse-Workload Assessment Tool (ORN-WAT), a new survey to quantify the ORN workload.

METHODS

We designed the ORN-WAT to itemize and objectively quantify the time it takes to complete tasks encompassed within the role of the ORN. We compiled this task list by utilizing the framework from previous published studies as well as work done by the Oncology Nursing Society and the IACRN4,11,13.

This was a cross sectional, one-time, 94 item electronic questionnaire that was administered through Survey Monkey, to seventy ORNs. The categories of questions in the ORN-WAT cover non-identifiable demographics (9 questions), protocol management (40 questions), eligibility and entry (13 questions), treatment (22 questions), follow-up and final stage (7 questions), and time to complete (1 question). Respondents were permitted to skip items and respondents also were asked to complete the Acceptability E-Scale to collect information about the survey’s usability and acceptability of tool8. Data returned did not contain any identifiable information. Institutional Review Board approval was obtained and written consent was waived.

RESULTS

We received 48 (69%) responses. Of the 48 respondents, 8 surveys were missing substantial data and these individuals were considered partial respondents. Including the Acceptability E-Scale, there were 94 closed item questions on the survey. The results provided is the result of a preliminary data analysis focused on the demographics of the respondents and feedback on completion of the ORN-WAT.

DISCUSSION

The results suggest that the ORN-WAT is indeed feasible. We learned that a majority of respondents were able to complete the survey in approximately thirty minutes, and through the Acceptability E-scale, the majority of respondents found the survey acceptable and easy to use.

The implementation of this study did have certain limitations. In order to maintain anonymity, and unbiased response, we were not able to collect identifying demographic information, such as what disease group a respondent worked with. In oncology, clinical trial intensity varies greatly according to disease group and phase of study. For informational purposes, being able to attain this information would have been a very useful point of analysis. Additionally, a challenge of any survey using a self-reporting mechanism is the chance for over or underestimation of time on behalf of the respondent.

Next steps include exploring the validity of the tool with observational assessment of workload compared to self-report, followed by a larger study that includes research nurses at other cancer centers across the United States. Ultimately, the aim is create a valid and reliable tool that not only support the identify of the role of the ORN, but to also demonstrate and quantify the vast workload of the ORN. We envision this tool to be used by ORNs, nurse managers, principal investigators, and others to determine staffing, funding, and coverage for the implementation of clinical research.

REFERENCES CITED