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Review of the Effectiveness of the Nutrition Care Process

Akiko ICHIMASA

Maricopa Integrated Health System Maricopa Medical Center, Phoenix, Arizona, USA

Summary This author (A.I.) has witnessed the introduction of the Nutrition Care Process (NCP) and its subsequent adjustment over 10 y of her career in an acute and critical setting. A.I. observed that the NCP went through several revisions to better suit the actual clinical practices and the NCP was gradually incorporated into everyday work and accepted in a clinical setting. The NCP helped ensure that all practicing registered dietitians (RDs, RDNs) have up-to-date skill sets. The NCP is a systematic problem-solving tool with four distinct and interrelated steps that help RDs to improve critical thinking and address practice-related problems so that RDs can more effectively intervene and evaluate. In summary, RDs using the NCP are producing consistent and easy-to-read documentation of clinical practices that benefit other healthcare members. The intention to provide diagnosis-oriented assessment and to treat nutrition problems with intervention plans opens up opportunities for communication within healthcare teams and clients. The best practice requires interactive and ongoing communication with healthcare teams and clients. The NCP has resulted in improved productivity as the RDs are writing diagnosis- focused documentation with specific plans for intervention. In addition, analysis of common problems and nutrition diagnoses resolution rates appear to be in process in some facilities and may further promote RD roles in practice settings. In conclusion, the NCP is an effective tool to provide improved nutrition care.

Key Words Nutrition Care Process, productivity, diagnosis resolution rate, physician acknowledgement of RD recommendations

The Academy of Nutrition and Dietetics (AND), formerly known as the American Dietetic Association (ADA) adopted a Nutrition Care Process (NCP) in 2003 (*1*). NCP is a systematic process that contains four distinct and interrelated steps: nutrition assessment, nutrition diagnosis, intervention, and monitoring/evaluation to provide high-quality nutrition care (*1*). The NCP is a method/tool to help with critical thinking and to provide effective nutrition (*2*). Since 2003, the NCP has been updated to ensure that it reflects current practice. The NCP has been continually incorporated into clinical practices and many benefits have been reported. The educational requirements have also changed; all types of dietetics education programs have been required to teach the NCP content since 2009 (*3*). For this mini-review, the keyword "Nutrition Care Process" was used to search for reports from clinical settings that were published between 2008 and 2014 November in the Journal of the American Academy of Nutrition and Dietetics (formerly, the Journal of the American Dietetic Association). All reports that described positive effectiveness of the NCP, productivity, diagnosis resolution rate, or physician acknowledgment of RD recommendations were included in this review. There were no negative effects reported, only a few cases where no increased effect was reported. In this brief review, positive effects were focused on.

E-mail: Akiko.Ichimasa2@mihs.org

Improved Productivity

Corado and Pascual (*4*) from a multi-service ambulatory care center reported that RDs used to write time-consuming nutritional assessments prior to adopting the NCP. By utilizing the NCP, RDs were making diagnosis-specific and focused documentation that resulted in improved productivity. Because of the improved productivity, RDs gained more time to be involved in greater activities such as interdisciplinary teams and quality performance improvement (QPI). Implementing electronic health records with the NCP in acute care hospitals also resulted in a 25% improvement in productivity with high levels of satisfaction from RDs (5). It appears that a common concern is the decreased productivity involved in transitioning to the NCP system. Trombley and Rodrigues (*6*) and their RDs too had concerns regarding productivity prior to the NCP implementation but they reported that the use of the NCP did not result in a decreased productivity level during the initial learning phase. It seems that more facilities are adding productivity tracking systems as reported by Weaver and Meyer (*7*), and many are in the process of developing electronic tracking tools that could also track their clinical productivity.

Identifying Diagnosis Resolution Rate

Copes and Ramsay (*8*) reported that using the standardized language for the NCP in electronic health records allowed measuring nutritional care outcomes. Their electronic system can generate a variety of reports, including percent of nutrition diag-

nosis resolved and days to resolution. Copes and Ramsay noted that their data showed a positive impact of nutrition on patient care (*8*). Shiner et al. (*9*) in an acute care setting reported that the NCP helped with identifying common nutrition diagnoses and improved the resolution rate. They were able to identify which diagnoses were more effectively treated in their setting (*9*). This is critical information to advance RDs' role in clinical practices. It appears that several facilities have been conducting similar studies. Weaver and Meyer (*7*) reported that they have begun to measure the resolution rate of nutrition diagnoses after nutrition intervention. Identifying common nutrition diagnoses and resolution rates likely will bring further interest and research to effectively treating patients.

Improved Physician Acknowledgment of RD Recommendations and Communication

According to studies, RD recommendations for high risk/critical care patients are only acknowledged by physicians about 50% of the time (*10, 11*). In the U.S., most RDs do not yet have ordering privileges although under the new rule (*12*), hospital approved RDs are able to order patient diets and nutrition-related laboratory tests without approval of a physician.

Allaire-Pittz (*10*) from a large-scale high acuity teaching hospital where RDs order-writing privileges were not within the scope of practice reported that using the NCP in their system increased physician acknowledgment of RD recommendations to 90%. They incorporated the four steps of the NCP into order-oriented physicians' forms making it convenient for physicians. Physicians reviewed the order-oriented assessment, chose "yes" or "no" and signed the order if "yes." Apparently, an added benefit was improved monitoring of nutritional outcomes with closer intervention and RD follow-up.

Corado and Pascual (*4*) also reported improved acknowledgement of RD recommendations, above 75%, by primary care providers due to increased discussion with physicians and "easier to read" RD notes. "Easier to read" implies consistency in RD documentation. Belcher (*13*) reported that that the NCP provides uniformity to RDs' notes for the medical team. Allaire-Pittz (*10*) and Becker et al. (*14*) also reported that using the NCP steps made RD documentation more consistent. Munoz et al. (*15*) reported that using the NCP resulted in focused nutritional assessments and improved communication and quality of care. They did not mention RD acknowledgement by physicians, but improved focused nutritional assessments and communication are the very foundation of RD acknowledgement. The best practice suggests that interactive and ongoing communication with the physician for both chronic and preventative conditions will provide the optimum outcome during the nutrition service (*16*).

Conclusion

The NCP continues to spread into many facilities and various practice settings. The NCP steps facilitate RDs' critical thinking and help to transform the nutrition problem/diagnosis and interventions into uniform medical documentation. Identifying nutrition diagnosis and implementing intervention seems to be sound logical practice; however, this idea is not widely accepted throughout the medical field. In clinical settings, this requires comprehensive knowledge: not only advanced clinical nutrition training, but also knowledge of medical procedures and practices, medications, and the ability to work as a medical team for comprehensive communication. Uniform documentation helps improve communication with primary care providers, as they are more consistent and easier to understand. Increased communication with primary care providers increases RD involvement in patient management. The NCP is an effective tool to improve productivity and increase the acknowledgement of RD recommendations and communication. The NCP also helps to analyze the problem resolution rate, demonstrating the positive impact of RD involvement. Analyzing resolution rates can also help with further investigation of effective interventions. The uniform NCP steps increase RD involvement and lead to better patient care.

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