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The perceptions of public health nurses on using standardized care plans to translate evidence-based guidelines into family home visiting practice

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ABSTRACT

Objectives: Public health nurse (PHN) perceptions of using standardized care plans to translate evidence-based guidelines into family home visiting practice have not been examined. The purpose of this study was to evaluate PHN experience and awareness of cognitive processes while using evidence-based care plans in family home visiting practice.
Design: This qualitative study used content analysis of PHN interviews.
Sample: A purposive sample of PHNs in a local public health agency who were experienced in the use of care plans in electronic documentation.
Measures: The qualitative study utilized content analysis methods. Semi-structured interviews examined their cognitive experience transitioning from usual practice care plans to evidence-based care plans. Interviews were transcribed and analyzed using a thematic analysis approach. Themes were developed and revised following several reviews of the transcripts.
Results: Four themes from PHN interviews revealed a complex dynamic process of knowledge management: (1) PHN thinking is separate from the care plan. (2) PHN thinking is supported by the care plan. (3) PHN thinking is stimulated by the care plan. (4) PHN documentation distress is minimized when the care plan matches PHN thinking.
Conclusion: While using the evidence-based FHV care plan, PHN cognitive processes were related to their own knowledge and expertise, their individual clients, and the entire client population or program. Evidence-based care plans supported and stimulated PHN thinking about evidence-based interventions and their application in practice. A good fit of the care plan knowledge schemata with a PHN's own knowledge schemata may decrease documen-

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Abbreviations: AHRQ, Agency for Healthcare Research and Quality; EBP, evidence-based practice; EB-FHV, Evidence-based Family Home Visiting; EHR, electronic health record; FHV, Family Home Visiting; HRSA, Health Resources and Services Administration; PHN, public health nurse; USA, United States of America.

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tation distress. Further research is needed to evaluate the impact of using evidence-based care plans in other disciplines and settings.

Introduction

Public health nurses (PHNs) in governmental public health agencies provide care that improves the lives of high-risk families [1–3]. To ensure high quality in family home visiting (FHV) and achieve the desired outcomes, it is critical to translate evidence-based FHV interventions into practice [4–6]. There are numerous evidence-based guidelines available that PHNs may consult to guide and update PHN practice [5,7,8]. However, the translation of guidelines into practice is a daunting task [4,9,10]. Efforts to incorporate guidelines into EHRs are in their infancy [8,10]. Recent software developments have enabled translation of evidence-based practice within electronic health records (EHRs) using evidence-based care plans, making evidence more available for PHN use [11–13]. Such EHR-delivered guidelines may be an efficient way to support PHN decisions and practice quality. However, little is known about the experience, cognitive processes, and decisions of PHNs using EHR-delivered evidence-based guidelines.

Theory

Theories that underlie the processes associated with translation of evidence-based practice (EBP) emphasize the processes of finding and evaluating evidence and the system-wide adoption of EBP [6,10,14–19]. Underlying and implicit in all EBP adoption models is the assumption that there is a cognitive change that takes place within the individual clinician. The Stetler Model pays particular attention to critical thinking that includes comparative evaluation and decision making [14,15]. However, none of the models explain the experience of learning, adopting, and using evidence-based guidelines in practice, particularly in relationship to the knowledge management processes embedded within the EHR. Such an experience necessarily exists within each individual person as cognitive change.

This cognitive process has been described as the use of frames or schemata that exist within each person's thinking and memory for structuring, classifying, interpreting, and using experiences and knowledge [16]. Accordingly, each clinician is equipped with extant personal schemata that provide the foundation of knowledge for providing care based on previous education and experience. Adopting newly-discovered evidence-based practice requires a change in these internal cognitive schemata to align with externally communicated schemata [16]. Nurses as knowledge managers are known to seek out information with the goal of changing or improving existing knowledge schemata [17]. Nine goals of nurse information seeking were described in order to address patient, nurse, and system information needs [17]. Discomfort, apprehension, and documentation distress might be experienced if frames or schemata conflict, and if a change in documentation practice is required [16–18].

The advent of computerization in healthcare settings has formalized schemata for health information and changed how clinicians interact with information, requiring all EHR users to understand and conform to organizing principles for knowledge management. Nurses' dissatisfaction with EHRs negatively impacting healthcare quality has been documented [19]. As EHRs are becoming the primary knowledge management method for healthcare, it is critical to improve knowledge management in EHRs to ensure ready access to accurate and meaningful information [20]. One organizing principle for knowledge management to support healthcare quality is the use of standardized terminologies for the integration of evidence-based guidelines and documentation [20].

The Omaha System is a standardized terminology that is used to document health care assessments, interventions and outcomes; providing defined terms and relationships that structure health information [21]. PHNs have long used the Omaha System in EHRs to describe and document routine and tailored PHN interventions [21–26]. In addition, PHNs have been active participants in guideline development for the translation of evidence into practice; and as a result numerous evidence-based PHN guidelines exist are encoded using the Omaha System [11,21].

Evidence-based Family Home Visiting guideline

One of the Omaha System-encoded guidelines developed by PHNs was the Evidence-based Family Home Visiting (EB-FHV) guideline, shown in Table 1. The purpose of the EB-FHV guideline is to communicate the best evidence for family home visits to high-risk mothers and children in the form of a shared care plan for public health nurses and families in order for all infants and children to achieve optimal health and wellbeing, and live safely in their families, homes, and communities [11]. It is intended for use across jurisdictions and in diverse family home visiting programs. The EB-FHV guideline is available online and has been embedded within clinical software as a care plan for use in PHN documentation [11].

The first version of the EB-FHV guideline was developed in 2008 using a content expert approach by a team consisting of a PHN supervisor and four home visiting PHNs in the Pacific Northwest, and an Omaha System expert. Problems included in this guideline were identified by national stakeholders, including home visiting nurses and scholars. The guideline contained abuse, caretaking/parenting, family planning, health care supervision, income, interpersonal relationship,

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