**Research Article**

**Identifying Barriers to Updating Policies at Healthcare Organizations with Current Evidence-Based Practices**

**David R. Guthrie DNP, APRN#**

#School of Nursing, Florida Agricultural and Mechanical University, Florida, USA

**#Corresponding author:** David R. Guthrie DNP, APRN, Assistant Professor, School of Nursing, Florida Agricultural and Mechanical University, 1601 S. Martin Luther King Jr Blvd, Tallahassee, Florida 32307, USA

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**Abstract**

**Purpose:** To determine barriers interfering with the timely updating and current evidence based uptake for healthcare organizations policies.

**Methods:** Based on the Rogers Diffusion of Innovations theoretical model, a descriptive cross-sectional survey of of administrators in a healthcare organization was done. A web-based survey collected descriptive data that was analyzed using factor analysis.

**Conclusions:** The single largest characteristic identified as the greatest barrier to evidence uptake into policies were characteristics of the organization-setting barriers and limitations; followed by characteristics of the communication-presentation and accessibility of the evidence; then, characteristics of the innovation- qualities of the evidence; and, finally, characteristics of the adopter- the health professional’s value of evidence, skills with evidence uptake, and awareness of the evidence

**Implication for practice:** Nurses and nursing administrators are uniquely positioned to assist the facilitation of evidence-based uptake into policies. Strategies that should be considered include the use of evidence-based review meetings, critically appraised topics (one-page summaries of the evidence with recommendations for integration into a policy), and educational assessments in which individuals reflect on the process of evidence uptake into policies and determine where they currently have learning gaps.

**Keywords:** Diffusion of innovation; Evidenced-based health care; Evidence-based nursing; Nurse administrators; nurses; Organizations; Policy

**Introduction**

A healthcare organizations accreditation establishes that the organization provide a wide range of health services. To be accredited, a healthcare organization must meet the standards and measures, set out by it’s accrediting body. Accrediting bodies require an organization’s policies and procedures be based sound, evidence-based, current health information. A review of a healthcare organization’s policies review found that 42% of policies listed in the policy database of the organization’s intranet were up to date with current evidence-based resources listed. Some of those policies are the directives regarding medications, procedures, patient teaching, special diet/instructions, durable medical equipment, and supplies that are provided directly to the public by the healthcare organization. The majority of supportive evidence for some of those policies was outdated as much as 10 to 12 years. If the policy formulators are indeed reviewing the most current evidence-based information available, it is not being indicated on the policies. However, if there are barriers to the incorporation of the most current and best evidence into the policies then it would be paramount to know what these barriers are, in order to develop a plan to decrease those barriers; it is imperative that the policies reflect current and evidence-based research and practice.

**Purpose**

The purpose of this study is to determine barriers interfering with the timely updating and current evidence based uptake for a healthcare organizations policies. The specific aims were to (1) identify the current factors that interfere with policy updating at the healthcare organization and (2) determine a systematic and effective method that can be employed to facilitate policies being updated with the most current evidence-based research/practice.

**Literature Review**

Not every US adult receives care that is consistent with current evidence-based recommendations. Evidence-based practice is defined as the application and standardization of healthcare practices based on scientific research and consensus of stakeholders in the field [1]. There is cause for concern and need for improvement, for quality of practice as well as the rate of scientific evidence use.

Positive population based health outcomes at the local, state, and national level can be achieved with the adoption of evidence based strategies. Increased access to high quality information, a greater likelihood for successful policies and programs being implemented, a greater workforce productivity, and greater efficiency of public/private resource utilization are all benefits of an increased focus on evidence based practice [2]. However, variations in the uptake of evidence to inform policy persists at every level of the health care system [3]. A closer look shows that these variations are related to barriers to evidence uptake and evidence-based policy making.

**Barriers to Evidence Uptake**

The literature is rich with discussions regarding barriers to evidence-based policy making. Davies [4] lists, in general, financial obstacles, the sheer volume of research evidence, the difficulty in applying global evidence in a local clinical context, limited time, impaired awareness of evidence sources, limited critical appraisal skills, and the limited relevance of research findings. Similarly, Beretta [5] found that research evidence competes with many other factors in decision-making processes; decision-makers may not value research evidence as the information input into decisions; available research evidence may not be relevant for certain audiences; and research evidence is not always easy or cost-effective to use. Even when there is excellent communication between researchers, policymakers, and practitioners, there are structural and symbolic restrictions on the circulation, popularization, and subsequent enactment of new knowledge [6]. A closer examination of some of these barriers may help in developing interventions to overcome them.

Making information more available has largely been the focus of initiatives intended to increase evidence uptake. It's assumed that the major barriers to decision-making revolve around data availability, accessibility, and user capacity. This assumption is supported in the literature [2]. However, in settings where politicized decision-making and organizational factors dominate policy, evidence uptake was marginalized. This can be problematic for those with an exclusive paradigm of evidence-based policy making; that is, if reliable and complete, research evidence will largely determine an unproblematic course of action [7].

Sheldrick, et al. [8] proposes that that the practical, ethical, and moral questions integrated in the policymaking process may not be answerable through searching for more empirical evidence. It's made clear, though, that robust epidemiological and clinical trials are still needed as part of policy and policy making; this type of evidence may not, in of itself, be complete for any policy. Instead, human agency is also often involved and manifests as the deliberative processes of reason giving, argument, and judgment; and may carry as much weight in policymaking as evidence-based findings. It may be difficult to apply new evidence-based findings due to policy inertia. Policies are processed in a manner that historically favors particular interpretations funneled towards the goals of particular political actors, and this process gains inertia and is difficult to change.

**Lessons to Learn from the Nursing Profession**

While the barriers to health evidence uptake and evidence-based policy making are apparent, some similarities can be found in the nursing profession [9]. Nurses, in general, are slow to adopt evidence-based practice into their daily decision-making. Research-based nursing decisions are uncommon. Nurses routinely rely on their own experience or information from colleagues. Research journals (online or in print), libraries, and Internet sources are generally not viewed as useful and are accessed on a limited basis. Preprocessed information like protocols, guidelines, and drug reference manuals are more likely to be used. This has important implications, as the practice of underutilization of evidence based findings is similar between the nursing and public health professionals. Studies have shown that prepackaged, processed information is also utilized more frequently in healthcare than single research studies [10].

Furthermore information seeking thoroughness among nurses is directly related to the amount of uncertainty inherent in the decision. Routine decisions are commonly based on the nurse’s own experience, assessment of the patient, and information from other people. A non-routine decision, on the other hand, requires information gathering from a larger variety of sources. Nurses do not, in general, perform exhaustive information searches to find the best evidence, but rather will stop their search when they have enough information to make a decision [9].

Additionally, nurses often require information through passive dissemination; that is, they are told the information in one-way communication and are not interactive participants regarding information exchange [2]. Nursing addressed this by instituting interactive advanced practice nurse led walking rounds. The evidence base information presented by the advanced practice nurse appears to be retained better than if it had been given passively [11]. Acute healthcare organizations strive to improve by having directives in place to review policies and procedures on a regular basis to facilitate current evidence uptake. In addition, preprocessed evidence is made easily accessible to nurses [9]. The interventions for the nursing staff in acute healthcare organizations may also be applicable to address the evidence uptake shortcomings at any healthcare organization.

It has been a challenge to close the gap between evidence based findings and actual evidence uptake at the acute care setting, but strides are being made. Barriers to evidence uptake, and the subsequent solutions to address the barriers, have been uncovered in the acute care setting [12]. It would be beneficial to know whether similar barriers exist in the public health setting and whether acute care setting interventions are applicable in the public health environment. This project will examine these unknowns- with the greater goal of improving the public’s health.

**Theoretical Framework**

The theoretical framework for this project is Rogers Diffusion of Innovations [13]. As applied to evidence-based practice, or evidence uptake, research findings (evidence) represent the innovation; the report, systematic review, meta-analysis, or other presentation of the research findings represent the communication; and the health-care setting represents the social system. For this project, the knowledge and persuasion stages are the stages of interests and the "Innovation" is defined as research utilization knowledge and persuasion of its value.

**Methods**

**Research Design**

A descriptive cross-sectional survey design was used to identify survey respondents’ personal and professional characteristics related to research utilization, their perceived barriers and facilitators of research use, and their perceptions of organizational culture; the effectiveness of the proposed organizational strategies on their perceptions of the organization's research culture was also examined.

**Sample/Setting**

A judgment, non-probability sample of nursing administrators, as well as other administrators in the healthcare organization was surveyed. These were the individuals who would be most involved with evidence uptake when policies are updated.

**Instrument**

A reliable and valid research instrument-the BARRIERS to Research Utilization Scale [14] (alpha = .91) was adapted to measure the organizations administrators attitudes and beliefs about research uptake and utilization. The BARRIERS tool, a 35 question Likert type scale that elicits perceptions of barriers and facilitators of research utilization, is divided into four subscales: characteristics of the adopter (the surveyees research values, skills, awareness); characteristics of the organization (setting barriers and limitations; e.g. time, resources, support); characteristics of the innovation (qualities of research findings and methodologies); and characteristics of communication (presentation and accessibility of the research). This tool contains 29 fixed response questions, five respondent-derived and rated barriers, and one open ended question. The BARRIERS scale, based on Roger's [13] theory, has been tested and documented in the literature [12].

Demographic questions were added to the instrument. Items that were collected included: Respondents work in; age, gender, ethnicity; whether they have a “Lower then a bachelor’s degree”, a bachelors degree, a masters degree, or “Higher then a masters degree”; years of experience with relation to their present discipline (for example a nurse that was once a secretary would not count her years as a secretary); and the most frequent type of policy (i.e, administrative; clinical; etc.) they’ve processed in the past year. In addition, a final item asked an open-ended question, related to evidence uptake into policies not covered in the instrument.

**Procedure/Data Collection**

A cover letter explaining the survey, the risks/benefits of participation in the survey, and measures to assure anonymity was created. The cover letter and a link to an on-line survey was routed to survey participants via a listserv. The cover letter served as informed consent and participation in the survey conferred consent. Participants were given one month to complete the survey. A blanket reminder was sent (by email) to all participants when two weeks remained and again when one week remained.

**Data Analysis**

The data was analyzed using SPSS version 18 (Chicago, Il, USA). Descriptive analyses were be used to present frequencies and distributions of reported barriers.

**Results**

**Demographics**

A total of 28 administrators completed the survey, representing a 37% response rate. Specifics for the demographics are located in (Table 1).

|  |  |
| --- | --- |
|  | n (%) |
| Age (years) |  |
| 25-39 | 3(10.7) |
| 40-54 | 15(53.6) |
| 55-70 | 10(35.7) |
| Gender |  |
| Female | 22(78.6) |
| Male | 6(21.4) |
| Ethnicity |  |
| Caucasian | 19(67.9) |
| Black or African American | 4(14.3) |
| Hispanic or Latino | 1(3.6) |
| Native Hawiian or other Pacific Islander | 1(3.6) |
| Other | 3(10.7) |
| Level of Education |  |
| Less than a Bachelor's degree | 4(14.3) |
| Bachelor’s degree | 6(21.4) |
| Master's degree | 11(39.3) |
| Greater than Master’s degree | 5(17.9) |
| Years of Healthcare Experience in Current Discipline |  |
| 0-9 | 8(28.6) |
| 10-19 | 6(21.4) |
| 20-29 | 5(17.9) |
| greater than 29 | 1(3.6) |

**Table 1:** Demographics.

**Barriers to Evidence Uptake into Policies**

The single largest characteristics identified as the greatest barrier to evidence uptake into policies at the healthcare organization (Table 2) were characteristics of the organization-setting barriers and limitations (mean: 2.76, standard deviation: 0.63); followed by characteristics of the communication-presentation and accessibility of the evidence (mean: 2.41, standard deviation: 0.66); then, characteristics of the innovation- qualities of the evidence (mean: 2.22, standard deviation: 0.65); and, finally, characteristics of the adopter- the public health professional’s value of evidence, skills with evidence uptake, and awareness of the evidence base (mean: 2.08, standard deviation: 0.54). These findings are consistent with previous studies, in which organizational support was cited as a top barrier [12]. The rank ordering of the 29 barriers in the percentage of items perceived by the healthcare organizations’ administrators as great or moderate barriers are summarized in (Table 3). The top three cited barriers reported in the study were: 1. Political influence often interferes with evidence uptake, 2. The administrator does not feel empowered to change public health policy, and 3. Higher administrative influence often interferes with evidence uptake.

The survey contained a free response question asking if there were other things the respondent thought were barriers to the uptake of evidence into policies. Ten participants wrote a response to the question (Table 4). Summative content analysis [15] was used to interpret the context of these free text responses and a corresponding BARRIERS scale factor was assigned. Interestingly, most of the free text responses aligned with the Likert scale findings showing the two top groups of barrier characteristics as organizational & communication. Indeed, organizational barriers, the largest identified in the Likert portion of the survey, were implied as a barrier in 80% of the comments.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Min | Max | Mean | Std.Dev. |
| Factor 1- Characteristics of the Adopter | 1.14 | 3.17 | 2.0847 | 0.5408 |
| Factor 2- Characteristics of the Organization | 1.43 | 3.8 | 2.7586 | 0.62985 |
| Factor 3- Characteristics of the Innovation | 1.2 | 3.5 | 2.2222 | 0.64901 |
| Factor 4- Characteristics of the Communication | 1.33 | 3.5 | 2.4083 | 0.66031 |

**Table 2:** BARRIERS Scale Factors.

|  |  |  |  |
| --- | --- | --- | --- |
| Barrier Items | Item mean score (SD) rank order | Reporting item as Moderate or Great Barrier (% )\* | Responding "No option" or No Response (%) |
| Political influence often interferes with evidence uptake | 2.56(1.60) | 60.7 | 2.5 |
| The PHP does not feel Empowered to change public health policy | 2.48(1.55) | 50 | 21.5 |
| Administrative influence often interferes with Evidence Uptake | 2.32(1.54) | 60.7 | 17.9 |
| The PHP feels results are not generalizable to own setting | 2.15 (1.35) | 42.9 | 25 |
| The relevant literature is not compiled in one place | 2.11 (1.52) | 53.6 | 25 |
| Evidenced-based ( EB) reports/articles are not readily available | 2.07 (1.51) | 42.9 | 28.6 |
| Statistical analyses are not understandable | 2.07(1.21) | 35.7 | 28.5 |
| The PHP is unaware of (EB) reports/articles | 1.96(1.40) | 32.2 | 25 |
| The PHP does not have time to read EB reports articles | 1.93 (1.41) | 39.3 | 21.5 |
| The PHP is isolated from knowledgeable colleagues with whom to discuss the EB report | 1.89 (1.34) | 39.2 | 39.3 |
| The PHP is uncertain whether to believe the evidence results | 1.88 (1.37) | 28.6 | 28.6 |
| Implications for practice are not made clear | 1.86 (1.33) | 39.2 | 32.1 |
| Other staff are not supportive of evidence uptake into policies | 1.81 (1.11) | 25 | 32.2 |
| There is insufficient time on the job to implement new EB policy changes | 1.7 (1.51) | 32 | 39.3 |
| The PHP feels the benefits of changing practice will be minimal | 1.68 (1.34) | 39.3 | 28.6 |
| The facilities inadequate for implementation of the evidence | 1.64 (1.311) | 32.2 | 32.1 |
| The amount of EB information is overwhelming | 1.59 (1.25) | 25 | 32.2 |
| The PHP does not feel capable of evaluating the quality of the EB reports/articles | 1.54 (1.36) | 21.4 | 35.7 |
| The EB reports' and articles are not reported clearly and readably | 1.5 (1.18) | 17.9 | 32.1 |
| The EB reports are not published fast enough | 1.41 (1.28) | 14.2 | 39.3 |
| The EB report/article is not relevant to the PHP | 1.39 (1.26) | 17.8 | 32.1 |
| The EB is not strong enough or has not been replicated | 1.39 (1.34) | 21.4 | 39.3 |
| The P HP sees little benefit for self | 1.39 (1.07) | 17.9 | 25 |
| The PHP is unwilling to change/try new ideas | 1.39(1.07) | 17.9 | 25 |
| The EB reports/articles report conflicting Results | 1.32 (1.19) | 24.3 | 35.7 |
| There is not a documented need to update the Evidence within policies | 1.29(1.27) | 17.8 | 35.7 |
| The EB reports/articles have methodological inadequacies | 1.18(1.22) | 14.3 | 42.9 |
| The P HP does not see the value of evidence for Policy Making | 1.11(0.89) | 3.6 | 32.2 |
| The conclusions drawn from the evidence are not justified | 0.96(1.19) | 10.7 | 53.6 |

**Table 3:** BARRIERS Scale Items in Rank Order by Mean Score.

|  |  |
| --- | --- |
| **Were there other things the respondent thought were barriers to the uptake of evidence into policies?** | **BARRIERS Scale Factors** |
| Funding- if evidence used to update policy need funding to implement | 2 |
| perceived value vs challenges/cost of change | 1,2 |
| In general, I think there are real barriers to the implementation of evidence based practiced in public health in Florida. Partially this is because of the political atmosphere, another part is the leaders put in power by the governor have little interest in evidence based practice, instead they push a political agenda. | 2 |
| Politics and financial barriers make it difficult to change policies. | 2 |
| Resources - staff, funding, etc. | 2 |
| Support or guidance on how to collect relevant evidence to this organization and time to do so. Everybody (including leadership) is busy. | 1,2 |
| time to locate and evidence; there is not published evidence on the broad scope of all PH practices. | 4 |
| Access to journals is a real problem. At DOH we have little access to peer reviewed journals. Mostly we go off of National Guidelines to guide policy, but these are not as timely as journal articles. | 4 |
| questionable application and "Use" of statistics | 2,4 |
| While the standard DOH format requirements of our policies require statutory authority be cited, they do not enforce review/citation of evidence-based practice. The one change in our required template would make a huge difference | 2 |

**Table 4:** Free Text Responses by Barriers Scale Factors.

**Discussion and Implications**

The purpose of this study was to identify the barriers to evidence uptake into policies amongst public health professionals at a healthcare organization. The findings are consistent with previously published literature. The respondents in the study reported characteristics of the organization as a major barrier and therefore a potential source of change for the implementation of research findings. Rogers diffusion of innovation [13] identifies the social system as having influence over the process in which a new innovation is adopted. The social system can also influence the rate at which new innovations are communicated. This is a top ten barrier communicated in the literature [12]. Studies cite feelings of non-empowerment to implement changes as the top barrier to evidence uptake [12], while administrative influence interfering with evidence uptake was reported as a top 10 barrier in previous literature [12]. These findings are also similar to Funk, et al. [14] original research on barriers to research utilization, which identify clinicians perceptions of the organizational characteristics as a major barrier to research utilization with insufficient authority to change practice among the top-cited barriers.

One noteworthy finding was a number of respondents who replied "No-Opinions" or did not indicate a response, particularly to those questions regarding characteristics of the innovation and characteristics of the communication. These questions focus on the quality and presentation of the evidence. The highest rate of non-response/no-opinion was in relation to the following two items: “The evidence-based reports/articles have methodological inadequacies" (42.9%) and “The conclusions drawn from the evidence are not justified” (53.6%). This implies that the respondents may not be familiar enough with research to have formed an opinion regarding methods or to evaluate results. This is further supported by the rank ordering of the barriers, in which a lack of awareness of the research was the top indicated adopter barrier to evidence uptake, as well as one of the top ten barriers overall. This self-report of lack of awareness provides valuable information for program planning.

The administrators also reported that the relevant literature is not compiled in one place (53.6%), evidence based reports /articles are not readily available (42.9%), and statistical analyses are not understandable (35.7%). These results may reflect a difficulty with understanding evidence-based/best practice articles and reports as well as difficulty accessing the reports. Guo, et al. [16] observed that administrators are more motivated to meet targets rather than read or evaluate research. Indeed, administrators may refer to their professional experience and peer groups as a primary source of knowledge rather than external evidence-based findings. Finally, Guo, et al. [16] expressed that administrators may be susceptible to consultancy regarding best practice not grounded in validated empirical evidence.

The healthcare organization has internet access. Although the administrators are reporting that the relevant literature is not compiled in one place, or that evidence based reports /articles are not readily available, it is. All that is needed are the skills to access and search electronic databases such as PubMed or Google Scholar which are readily available on the World Wide Web. The administrators already have recommended solutions (Table 5). Three major themes identified from the “Facilitators of evidence uptake” question, in priority were upper-administrative support, multi-disciplinary discussion, and access to evidence-based/best practice research. Pendell and Kimball [17,18] make observations that mirror these themes regarding facilitation of evidence uptake.

|  |
| --- |
| Access to peer review articles on-line, discussion among multi-disciplinary teams of experts and defined process for including evidence-based research into policy revision/development. |
| By in from management I really think it has to come from the top. If managers value EBP and give staff time to participate in it then it will facilitate the use of EBP in public health. Time isn’t big of an issue in public health as it would be ina hospital or clinic setting; instead the biggest barriers here are access to EBP and the buy-in from management |
| Collaboration and cooperation from others, recognizing that subject matter experts for policies should be able to take the lead |
| division support, timelines, access to articles. |
| Easy access to the evidence. Dialog among experts who will implement the policy about the proposed changes. |
| Executive leadership support of evidence-based policies; clear guidance from the literature on how to implement these policies; Need return on investment/cost of policy changes |
| If it is already widely used and if it is financially feasible and if the administration likes the idea or feels pressure to do it |
| No comment |
| No Opinion. |
| Other attention to the issue- ex lobbying by outside entities |
| Publicizing good examples and demonstrating how they are beneficial. Providing forums to discuss how to collect relevant evidence to support or change policies. |
| Specific applicability. Reports are often only tangentially related to policies or work so it is difficult to apply them. |
| When evidence is generally accepted, say from the CDC; willingness to make changes on the part of management/administration. |

**Table 5:** Free text response- What facilitates the uptake of evidence into policy.

There are methods to assist the facilitation of evidence-based uptake into policies. Strategies that should be considered include the use of evidence-based review meetings, critically appraised topics (one-page summaries of the evidence with recommendations for integration into a policy), and educational assessments in which individuals reflect on the process of evidence uptake into policies and determine where they currently have learning gaps [12]. Clearly, the administrators in the healthcare organization need assistance in developing the skills necessary for evidence uptake into policies. The commonalities between this study and previously published works illustrate the need for organizations to support staff in developing the skills for best practice utilization and evidence uptake.

**Conclusion**

Despite initiatives for incorporation evidence-based and best practice from government agencies, regulatory boards and healthcare professionals alike, and a rapid growth of evidence-based practice with recent years, it appears that there are barriers to evidence uptake into policies at the healthcare organization To develop evidence-based-based practice within healthcare organizations, deficits must be addressed the and then establish interventions to meet those needs. Only then will the healthcare organization become aware of the availability of current evidence based practice documents, and best practice documents, and strive to incorporate the findings into their policies.

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