

## ORIGINAL RESEARCH

# An exploration of the enactment of acculturation in research utilization within a nursing undergraduate curriculum-in-action

Craig Michael Duncan <sup>\*1</sup>, Yolanda Babenko-Mould<sup>2</sup>, Carroll Iwasiw<sup>2</sup>, Carol McWilliam<sup>2</sup>, Kathy Hibbert<sup>3</sup>

<sup>1</sup>School of Nursing, Laurentian University, Sudbury, Ontario, Canada

<sup>2</sup>Arthur Labatt Family School of Nursing, Western University, London, Ontario, Canada

<sup>3</sup>Faculty of Education, Western University, London, Ontario, Canada

**Received:** June 13, 2016

**Accepted:** August 10, 2016

**Online Published:** August 18, 2016

**DOI:** 10.5430/jnep.v7n1p21

**URL:** <http://dx.doi.org/10.5430/jnep.v7n1p21>

## ABSTRACT

The purpose of the study was to develop an interpretive understanding of the enactment of acculturation to research utilization by students and educators in one undergraduate nursing program. Professional acculturation is the process by which the values, attitudes, and norms of a professional culture are internalized. As an integral element of safe, effective, and competent nursing care, research utilization has been identified as an important element of professional nursing. Focused ethnography was used as a methodology to explore the social construction of norms, understandings, relationships, and experiences that comprise acculturation to research utilization curriculum-in-action. The acculturation of research utilization transpired unintentionally within the nursing program in the presence of both articulated and unarticulated curricular values, norms, and goals. Two main sub-themes were identified: the use and role of unintentional curricular language and the variable enactment of values, norms, and goals. An intentional approach to acculturation to research utilization within the curriculum-in-action is essential to socially construct the professional practice of nursing through formalized professional education. Nursing programs need to understand how to successfully acculturate students to valued practice competencies such as research utilization because these competencies constitute the essence of professional nursing.

**Key Words:** Professional acculturation, Undergraduate nursing education, Research utilization

## 1. INTRODUCTION

Research utilization (RU), the application of research findings in all individual and organizational elements of nursing practice,<sup>[1,2]</sup> is an integral part of effective nursing care and should be a key focus of undergraduate nursing education. The integration of research evidence by nurses has been linked to better outcomes for patients, increased cost-effectiveness, enhanced accountability, and transparent decision-making.<sup>[3]</sup> RU is one key element of evidence-based

practice (EBP), an approach to health care delivery where problems are solved through the inclusion of the best current evidence from high quality research studies (the focus of RU) with preferences and values of patients and nurses' clinical expertise.<sup>[4]</sup> Research utilization, inclusive of the ability of nurses to find, critically evaluate, and integrate research into practice is foundational to EBP, a highly valued focus of current nursing practice.<sup>[1,2]</sup>

Despite the acknowledged benefits of EBP and research-

\*Correspondence: Craig Michael Duncan; Email: [cduncan@laurentian.ca](mailto:cduncan@laurentian.ca); Address: School of Nursing, Laurentian University, Sudbury, Ontario, Canada.

based nursing practice and the increasing availability of research findings, nurses' under-utilization of research is an ongoing concern.<sup>[5-7]</sup> Integration of research into nursing practice is an "at best, slow, and haphazard" process.<sup>[6]</sup> Consequently, the nursing care provided to patients may not be the most current and beneficial.<sup>[6]</sup>

To facilitate RU post-graduation, Estabrooks proposes that the underlying complex and socially-bound sources of this research-practice gap be considered within undergraduate nursing curricula.<sup>[8]</sup> Further, Spiers, Paul, Jennings, and Weaver suggest that nursing education programs generate and implement curricula to support students in overcoming cultural and contextual challenges to RU, while helping them develop the necessary knowledge, values, and abilities to use research in their practice.<sup>[9]</sup> The values, attitudes, norms, and goals of RU shared by faculty and students within undergraduate learning, however, are not yet fully understood. Therefore, the purpose of this study was to explore acculturation in RU within a nursing education curriculum-in-action.

### Background and significance

The professional and governing organizations responsible for nursing education in Canada and the United States require the incorporation of research into practice.<sup>[10-12]</sup> The Canadian Nurses Association (CNA) Code of Ethics specifies that nurses "support, use, and engage in research and other activities that promote safe, competent, compassionate, and ethical care".<sup>[11]</sup> The American Nurses Association (ANA) requires registered nurses to integrate research findings into practice.<sup>[13]</sup> To meet research-focused accreditation competencies, baccalaureate nursing programs are expected to provide a foundation for understanding and commitment to, RU.<sup>[6]</sup> The Canadian Association of Schools of Nursing (CASN) and the Commission on Collegiate Nursing Education (CCNE), which accredit nursing education programs in Canada and the United States of America, stipulate that educational environments and experiences should help to create nurses who engage in evidence-based quality patient care. However nurses rely predominantly on social interaction and experience, not research, as primary sources of practice knowledge.<sup>[14-16]</sup>

Individual factors such as educational experiences, professional socialization, involvement in research activities, use of information sources, values, skills, awareness of research, and personal autonomy influence RU.<sup>[17,18]</sup> However, results from a systematic review conducted by Estabrooks found that "only a positive attitude to research (*i.e.*, values), in-service attendance, and the ability to suspend strongly-held beliefs were significant"<sup>[18]</sup> in relation nurses' RU. She concluded that nursing programs need to understand the process

of developing RU values, attitudes, and norms. Given that nursing students need knowledge and skills to deconstruct and implement research evidence, and attitudes and values that motivate doing so within healthcare contexts,<sup>[8]</sup> multifaceted educational strategies are required if graduates are to meet professional requirements regarding RU.

Acculturation, the process of learning and internalizing the value systems, attitudes, norms, and behavioural patterns of the profession, is foundational to professional practice in relation to RU.<sup>[19,20]</sup> Similar to professional socialization, acculturation focuses on the development of professional behaviours. In contrast, socialization centers on the influence of social impacts, particularly educational environments, role models, clinical educators, and current nursing professionals during student formative experiences.<sup>[20,21]</sup>

The centrality of culture to the acculturation process differentiates professional acculturation from professional socialization. The culturally-grounded interactions and transactions between and among students, educators, and other individuals within educational contexts are specifically attended to within professional acculturation. Nursing students are acculturated to the profession through the formal curriculum and concomitant curriculum-in-action.

Curricular culture is revealed in "belief systems, everyday behaviours and interactions, artifacts that participants create, the use people make of time, and the allocation of decision-making power".<sup>[22]</sup> Within nursing education, this culture needs to reflect the professional values, attitudes, norms, and goals that educators wish students to develop. Values are the positive orientation to a shared belief, manifested in an individual's actions.<sup>[23]</sup> Attitudes are the perspectives that guide the behavioural manifestation of values; if a specific value is held by a professional, then it will be evident in the professional's proclivity to particular actions.<sup>[23]</sup> Norms are the socially negotiated rules and standards for behaviour that are characteristic of a sociocultural group<sup>[24]</sup> and are the manifestation of values in behaviours and actions.<sup>[23]</sup> Finally, goals are the expectations for students and ultimately describe the "desired knowledge, abilities, values, and comportment of graduates".<sup>[25]</sup> Educators and students within a curricular culture should be able to articulate the educational focus, process, and outcomes for key concepts that are enacted and experienced within values, attitudes, norms, and goals.<sup>[22]</sup>

Although educators have argued for teaching RU,<sup>[9,26]</sup> the literature investigating the implementation of RU in undergraduate nursing curricula has largely been limited to descriptions of teaching strategies. Many studies address basic research knowledge and/or efficacy in RU,<sup>[27-32]</sup> but there is a paucity of research literature about students' development

of values, attitudes, and behavioral norms required to meet practice standards for RU.<sup>[8,33]</sup>

## 2. LITERATURE REVIEW

In a review of nursing education literature, the term professional socialization is pervasively used in the examination of the development by students of professional values and behaviours.<sup>[34]</sup> An interactionist approach to professional socialization is based in the assumption that individuals derive meaning through interactions with others, environments, and engagement in reflection.<sup>[35]</sup> Professional socialization from this viewpoint is bound in a socially interactive process where individuals are actively and creatively engaged, rather than simply passive recipients of experiences and values.<sup>[35]</sup> A functionalist approach is a deterministic and passive view of socialization.<sup>[35]</sup> This process is initiated externally to the individual, driven largely by others influencing student development of behaviour and values.

Professional acculturation shares a focus on the active and engaged experiences and process of student development, similar to the interactionist conceptualization of professional socialization. Again, the key feature that differentiates professional acculturation from professional socialization is the centrality of culture to the acculturation process. Professional acculturation specifically attends to the culturally grounded interactions and transactions between and among the students, educators, and other individuals within the educational context.

The nursing education literature affords little knowledge of the process of professional acculturation to values, attitudes, and norms. A beginning step in this exploration is a review of scholarly literature that considers professional acculturation, interactive professional socialization, and the overall formation of professional values, attitudes, and norms in undergraduate nursing curricula. To date, 10 known studies have addressed acculturation and/or interactive socialization in undergraduate nursing student development. Details of these studies are provided in Table 1.

Three key findings were evident. First, professional practice experiences had a significant role in the development of professional values, attitudes, and norms of students.<sup>[20,21,35-40]</sup> All researchers identified the primacy of professional practice experiences over classroom experiences in the development of professional values, attitudes, and norms. Secondly, the development of values, attitudes, and norms transpired as students progressed throughout a baccalaureate program.<sup>[19,35,36,39,41]</sup> This work suggests that students entered nursing programs with a conception of what it is to be a professional nurse. This conception provided a basis for

further development of professional attitudes, values, and norms throughout their undergraduate education. Finally, the development of values, attitudes, and norms occurred across multiple contexts within the undergraduate curriculum.<sup>[21,35,37,39,41]</sup> Research to date also identifies the context of curriculum as a salient element of professional acculturation, professional socialization, and formation of values, attitudes, and norms.

Except for one study revealing that acculturation to caring was negatively influenced by exposure to the clinical context,<sup>[41]</sup> research describing the enactment of curricular acculturation processes related to specific values, attitudes, and norms were not identified. The culturally-based transactions and interactions that are crucial within the acculturation process also have not been elucidated.<sup>[42,43]</sup> There is a need to extend the evidence base for nursing education,<sup>[44]</sup> and a key element in doing so is the investigation of acculturation to RU and its related outcomes. Therefore, the following research question guided the study: “What is the enactment of acculturation in RU within a nursing education curriculum-in-action?”

## 3. METHODS

A focused ethnographic design was chosen to elicit an interpretive understanding,<sup>[45]</sup> of acculturation to RU as enacted by students and educators within a curriculum-in-action. Focused ethnography allows for a close examination of a predetermined topic of interest,<sup>[46]</sup> by short-term field visits combined with intensive data-collection and analysis through interviews, documents, and observation.<sup>[45]</sup> The shorter time period of field visits in focused versus traditional ethnography is compensated for by intensive and extensive data collection,<sup>[45]</sup> concentrating on understanding specific complex issues, including “cultural perspectives, behaviour and social context”.<sup>[47]</sup> The exploration of culture focused specifically on RU acculturation across contexts and experiences in the third and fourth years of a four-year undergraduate baccalaureate program. Approval to conduct the study was received from the institutional Ethics Review Board and the Director of the School of Nursing.

### 3.1 Context

A research-intensive university school of nursing was chosen because of its emphasis on research knowledge and utilization. Research, and the integration of research to inform and influence practice, is a key component of the philosophical and theoretical underpinnings of the curriculum. The learning contexts examined were the formal and informal environments in which education transpired, specifically nursing practice settings, classrooms, and the simulation laboratory.

**Table 1.** Summary of interactive professional socialization, professional acculturation, and formation of professional values, attitudes, and norms in nursing education

Study	Purpose	Sample	Methods	Results
Brown, Stevens & Kemode (2012)	To explore the role of the clinical teacher in the process of professional socialization of students.	N = 14, clinical teachers and graduates	Exploratory, qualitative	Clinical teachers supported students to develop strong and positive nursing values. The practice experience provided exposure to the nursing role and allowed for internalization of values and norms observed in action.
Carlson, Pilhammar & Wann-Hansson (2010)	To describe how preceptors influence nursing students' professional socialization.	N = 29, preceptors and staff nurses	Ethnography	Preceptors supported students' development of knowledge, skills, and values to enable them to become "good competent nurses". Practical skills, planning and prioritization, ethical awareness, communication skills and critical thinking were identified foci for educators.
Condon & Sharts-Hopko (2010)	To examine the process of professional socialization among Japanese nursing students.	N = 10, faculty members and 3 <sup>rd</sup> and 4 <sup>th</sup> year nursing students	Exploratory, qualitative	The socialization of students was found to be a multi-dimensional process influenced by practice, classroom, and extracurricular experiences. Practice experiences were described as the best socialization to the nursing role. Faculty were described as having little direct impact on socialization.
Rush, McCracken & Talley (2009)	To describe and compare students' perceptions as insiders when participating in different models of practice – based teaching and to describe factors influencing student self-perception.	N = 38, 3 <sup>rd</sup> year undergraduate	Descriptive, non-experimental	Participants demonstrated significant changes in self-perception as insiders (belonging to and accepted by the profession) as a result of practice experiences. Factors influencing self-perception included: the educator-student relationship, opportunity for independent practice, and exposure to complex practice realities that challenged students' understandings.
Ware (2008)	To discover, describe, and analyze the process of forming a concept of oneself as a nurse.	N = 15 4 <sup>th</sup> year final semester undergraduate	Grounded Theory	Participants drew on a knowledge base throughout the nursing program in the formation of their self-concept as a person and aspiring nurse. Faculty had a key role in establishing and maintaining the culture of the nursing program that is foundational in students internalizing values and beliefs.
Mackintosh (2006)	To identify how participants' perceptions of caring and becoming a nurse during pre-registration nurse training changed over time.	N = 16, 3 <sup>rd</sup> year undergraduate	Descriptive, longitudinal, qualitative	Participants described an overall loss of the idealistic view of caring as an integral part of nursing care as they progressed through education environments.
Day, Field, Campbell, & Reutter (2005)	To examine the socialization of nursing students within a four-year baccalaureate program.	N = 50, 1 <sup>st</sup> and 4 <sup>th</sup> year undergraduate	Exploratory, qualitative	Participants' images of nursing moved from those of a layperson to those of a professional nurse over the four years of the program. The development of professional values, such as caring, advocacy, and compassion, took place across curricular environments and with multiple educators.
du Toit (1995)	To examine nursing students' exposure to and internalization of normative standards and professional characteristics	N = 173, 1 <sup>st</sup> and 3 <sup>rd</sup> year undergraduate	Descriptive, non-experimental	Participants were highly socialized to nursing values (the client as the primary consideration, the importance of caring, and standards) over the course of their education.
Campbell, Larrivee, Field, Day & Reutter (1994)	To describe student-identified factors that facilitated their learning to nurse in the practice setting.	N = 131, 1 <sup>st</sup> - and 4 <sup>th</sup> year undergraduate	Exploratory, qualitative	The practice instructor and peer supporter were the most influential factors on student learning in the practice setting.
Goldenberg & Iwasiw (1993)	To examine the effects of a senior practice nursing preceptorship experience on students' professional socialization.	N = 68, 4 <sup>th</sup> year final semester undergraduate	Descriptive, non-experimental	Participants developed nursing role conceptions during practice education resolving inconsistencies between student and graduate roles.

### 3.2 Sample and sampling strategy

A diverse purposive sample of the environments, documents, contexts, and participants involved in teaching and learning across the curriculum was explored to uncover the acculturation of nursing students to RU. Ten individuals participated in the semi-structured interviews. They included classroom educators of the third-year research courses ( $n = 4$ ) and a nursing theory course ( $n = 1$ ), a fourth-year nursing theory course professor ( $n = 1$ ), educators in the simulation laboratory ( $n = 2$ ), and a practice experience educator ( $n = 1$ ). Only one student consented to be interviewed.

### 3.3 Data collection methods

Data were collected in three ways: semi-structured interviews, participant observation, and document analysis. In the audio-recorded, semi-structured interviews ( $\bar{x}$  length = 1 hr, range = 45 min – 1 hr 15 min), participants were asked open-ended questions from a researcher-designed interview guide to elicit discussion of how they experienced acculturation related to RU.

Participant observations in classroom environments included third-year and fourth-year research and theory courses. Groups of fourth-year students were also observed during conferences preceding simulation experiences, the simulated experiences, and de-briefing. Student-educator interactions and post-conferences were observed in an acute-care practice setting. Field notes were written during all observations. These notes were made up of detailed descriptions of the interactions and transactions observed between students and educators within the curriculum-in-action, along with the responses of participants to informal researcher questions about their understandings of these processes.

Curricular documents, specifically, all undergraduate nursing course syllabi and the program manual, were obtained. These were examined for data relevant to educational theory and philosophy related to RU, as well as cultural values, attitudes, norms, and goals.

### 3.4 Data analysis

Data collection and analysis occurred simultaneously and iteratively.<sup>[48]</sup> Data from curricular documents, interview audiotapes, and field notes were transcribed verbatim and entered as textual data for management using N-Vivo (Version 10). Line-by-line reading of the transcribed data yielded initial codes that identified key phrases and recurring topics. Initially-coded data were then compared and contrasted to identify and develop preliminary data categories. As data categories were developed, burgeoning themes were further explored with participants within subsequent interviews and through informal researcher questions during observations.

As new data were acquired, the categories and developing themes were further analyzed to generate a theoretical understanding<sup>[49]</sup> of the enactment of shared values, attitudes, norms and explicated goals for students learning, constituent elements of acculturation to RU. Thick descriptions of context and themes, along with peer review<sup>[50]</sup> of the coherence and cohesion of the interpretation by the thesis advisory committee promoted authenticity. A comprehensive audit trail was maintained to enhance the epistemological integrity of the interpretations, recommendations, and conclusions arising from the data.

## 4. FINDINGS

The social construction and acculturation of RU transpired within the context of unintentional curricular connections in the nursing program in the presence of both articulated and unarticulated curricular values, norms, and goals. Two main sub-themes of the unintentional context and process of research acculturation were identified: the use and role of unintentional curricular language and the variable enactment of values, norms, and goals across educational experiences and contexts.

### 4.1 The use and role of curricular language

The specific term, RU, appeared infrequently in both the formal curriculum, constituted by the syllabi and program manual, and in the curriculum-in-action, constituted by the actions and transactions of educators and students. This term was found in only one document, the course syllabus of the third-year research methods course. However, multiple terms associated with RU were used in all other courses varying from course-to-course and year-to-year. The terminology included: best practice guidelines, empirical knowledge, evidence, evidence-informed practice, evidence-based practice, scientific knowledge, informed consumer, and research. How these terms and RU were connected was not evident in the data collected. The apparent norm was limited articulation of RU as a term or concept across the curriculum.

Further, the values, norms, and goals related to RU were not clearly articulated within curricular documents. Goals specific to RU were not visible in overall curricular objectives. Similarly, norms such as educative approaches to teaching and learning RU were not formally addressed. Values grounded in a shared system of beliefs were not clearly delimited across the formal curriculum, although values are specified in the School's mission statement.

Thus, clarity, purposefulness, and consistency in curricular language about the concept of RU were not identified across the data collected. This cultural context allowed for unintentional contextual processes both in the approach to and

enactment of teaching and in the learning experiences of RU.

**4.1.1 Meanings of research within the curriculum**

Multiple understandings of research were apparent within the curricular context, including: research as scientific inquiry, research as the process of finding existing information, and research as information (see Table 2).

In summary, the meanings of the term research included scientific inquiry, the process of finding information, and information itself. Research as scientific inquiry was apparent in both the research and non-research courses, was the systematic approach to the creation of new knowledge. This meaning of research was used consistently in the research course formal curriculum artifacts, such as syllabi and learning activities (written guidelines for class preparation), classroom, and by research course educators socially constructing a clearly articulated connection between the term “research” and the scientific creation of new knowledge. Language such as methods, results, analyze, sample, and critique, common to the process of scientific inquiry, reflected this definition. The term research was also used to mean the process of locating existing information about a specific subject from a variety of sources. The term information within this context involved a broad understanding of knowledge and knowledge sources, including: patient information, medical documents, textbooks, and scholarly journals. This definition of research was evident across artifacts and observed norms in contexts other than the research courses. Finally, the word research also was used as a generic

term to refer to all information obtained from a plethora of discipline-specific and scholarly literature. These sources included literature reviews, scholarly discussions, textbooks, clinical documentation, and research articles. In response to questions about the nature of research in nursing, study participants articulated a broad and fluid understanding.

These three meanings were found across curricular contexts, documents, and in individual explanations provided by classroom and clinical educators. A consistent singular meaning for research as scientific inquiry was identified as a norm only across data related to the research courses of the curriculum. Multiple meanings could be associated with research in the theory courses, simulated practice experiences, and practice experiences of the curriculum. The multiple definitions found within the data collected allowed for the social construction of multiple meanings creating an unintentional context for acculturation to RU within the curriculum-in-action.

**4.1.2 Meaning of utilization within the curriculum**

The term utilization also appeared and was defined only in the data collected from the Research Methods course. The lack of a formal articulation of utilization was discussed by one educator: “Research utilization is something that should be transparent and visible in the course and I think it’s sort of one of those implicit assumptions. I certainly can’t say that I’ve seen anything formal and we’ve certainly not had those discussions in the course development to make it a transparent piece.”

**Table 2.** Meaning of research within the curriculum

Research Meanings	Data Sources	Examples
Research as Scientific Inquiry	Research Course Artifact	“Understanding the research process, and being able to interpret the results sections in published research, enables nurses to critically analyze the discussion and implications of research” (Research Course Syllabus)
	Research Course Educator	“I think it is a good thing that students are exposed to critiquing research early on in the program”
	Other Educator	“I’ll have readings over and above their text that are research studies that have been done by people who are right here, and I suggest to students that you go see them [the researchers]”
Research as the Process of Finding Existing Information	Other Course Artifact	“Research the nursing academic literature regarding the relevance of each of the determinants of health” (2nd Year nursing theory course syllabus–Assignment outline)
	Other Educator	“If there’s somebody there that has a personal assistive device to look something up I say, ‘Let’s research that.’ but then I encourage them to go to more platforms that are going to give them much better information.”
Research as Information	Other Course Artifact	“Scholarly research and content.” Reference at least four articles from professional nursing and allied health journals. Although web-based information may be used, it must be in addition to journal references.
	Other Educator	“So the students know even from writing their first reflection [on their practice] that they must provide two documents, two examples of where they went for the research to support their thinking.”

Across the data collected, the norm within the curricular cultural context was limited direct and intentional use of the concept of RU, and the terms research and utilization. There was a paucity of clear language connected with these terms, possibly creating a lack of clarity of meaning. The intentional acculturation to curricular values relies on coherency in the experience and presentation of values.<sup>[22]</sup> A key element of coherency is consistent practices and content that reflects the aims of the curriculum. A multitude of language

and concomitant meanings within the curricular culture reflects a challenge to the coherency needed to intentionally acculturate students to required professional values.<sup>[22]</sup>

#### 4.2 Enactment of curricular norms, values, and goals

Using these multiple meanings of RU, socially constructed through language, study participants enacted multiple curricular norms, values, and goals in assignments, experiences, and cultural dialogue throughout the curriculum-in-action (see Table 3).

**Table 3.** Enactment of curricular norms, values, and goals

Enactment of Curricular Norms, Values, and Goals	Data Sources	Examples
Enactment through Contextual Connection	Research Course Artifacts and Other Course Artifacts	"Integrates theory, research and practice (Minimal course requirements in multiple courses)."
	Other Educator	"In practice we're always basing our decisions that we make, formed by some sort of knowledge that might be coming from research studies' findings or from more informal knowledge. So it's engrained in your practice."
Enactment through Exemplars	Other Educator	"Research studies have shown that the brain can watch a space to a space, so a watch with hands is better than a digital watch when timing."
Enactment through Experiential Learning	Report on Reflective Practice	"Students are writing reflective reviews in practice, we're expecting them to give their evidence so they need to get some knowledge of what's evidence and what isn't."
	Course Assignment	"Identify an issue and examine the research that will help you develop an understanding about that issue." (4 <sup>th</sup> year Theory Course-Assignment Outline)
	Praxis	"Praxis also refers to the dynamic interplay between action and reflection, and affirms that knowledge can be brought to, and be derived from, nursing practice." (Program Manual)

The enacted curricular norms, values, and goals in course assignments, clinical experiences, and professional dialogue throughout the curriculum-in-action both reflected and underpinned the multiple meanings of research, utilization, and RU conveyed within contextual connections, exemplars, and experiential learning.

Connections of RU to nursing practice were reflected in the use of specific terms associated with research and practice in the same learning experience or requirement. For example, these contextual connections were reflected in how research course educators grounded their teaching of concepts, methodologies, and theory in examples of nursing practice. The norm of using the terms "theory", "practice", "professional nursing practice" and "research" concurrently was also apparent within the stated educational goals, course requirements, assignments, and student learning outcomes in the reviewed documents. How to connect research and practice, however, was not articulated. Both educators and curricular materials, artifacts generated by individual educators, revealed the potential presence of shared goals and values consistent with RU. However, beyond a connection between terms, explanation of RU was not apparent. The

RU process includes asking researchable questions, finding research studies, critically evaluating research studies, implementing research findings in practice, and evaluating the implementation.

Educators also exposed students to exemplars that demonstrated the potential impact of scientific inquiry on specific nursing practices. It was a norm for classroom educators to expose students to exemplars that demonstrated the potential impact of scientific inquiry on specific nursing practices. In addition, educators within practice settings, exposed students to salient research to facilitate new learning connected to specific practice experiences. In both contexts, the exemplars were used to elucidate aspects of the connection of research to practice, a key curricular goal and value consistent with RU acculturation. Components of the RU process, however, were not normally addressed in these examples. Rather, the norm of using exemplars focused on identifying the purpose of RU and rationale for nurses' use of research in practice. Exemplars often illustrated how knowledge and practice could change through RU. Normally, students were not required to situate their development of research knowledge in their self-identified practice problems, questions, en-

vironments, or examples. The goal appears to be for students to understand the importance of integrating RU into nursing practice, however, not to actively engage in the complete process.

Experiential learning intended to facilitate RU was apparent in the Report on Reflective Practice (RRP), course assignments, and praxis. Within these learning experiences curricular norms, values, and goals relevant to RU were enacted without apparent intention and in ways reflective of multiple diverse understandings of research, utilization, and RU. While study participants shared an underlying commitment to the connection between research and practice consistently, key elements of RU processes were again missing or not articulated comprehensively. Students' experience of RU appeared, at best, to be serendipitous. While participants shared an underlying commitment to the connection between research and practice, key elements of RU processes were not often overtly articulated.

#### 4.3 Summary of findings

The findings of this study illuminate unintentional enactment of acculturation to RU within one undergraduate curriculum. Multiple definitions, meanings, enactment experiences, and goals related to RU were identified in the program manual, across individual course syllabi, and within the observed curriculum-in-action. Acculturation was thus serendipitous, without agreed-upon intention and approaches, across curricular contexts. As such, educators were individually responsible for acculturation to this aspect of professional nursing practice.

### 5. LIMITATIONS

The findings of this study reflect the cultural meanings and enactments of RU found only in the data collected. Data unavailable to the researcher may have revealed other interpretations. Only one practice experience educator participated, and therefore, the full range of enactment activities related to acculturation to RU in the practice environment may not have been uncovered. Moreover, only one student completed the formal interview process. Consequently, the findings largely reflect perspectives of faculty and those who created the curriculum documents.

### 6. DISCUSSION

In this study, the formal curriculum in undergraduate nursing education under investigation was comprised of both intentional and unintentional elements. Theoretically, the intentional elements of a curriculum are comprised of foundational concepts and values. Normally, a formal curriculum articulates the intended curriculum-in-action and, ultimately,

practices.<sup>[51]</sup> Routinely, key elements of the curriculum are defined. Essential elements of these definitions include purpose, aims, goals, and situated meanings, illustrating the intentions of the educators involved.<sup>[51]</sup> As such, a formal curriculum intentionally reflects a purposive approach to the teaching and learning processes relative to key concepts within that curriculum.

Two insights into the dynamic larger cultural context of nursing education are reflected in the findings of this study. First, the unintentionality in the acculturation of RU, in part, reflects the complexity of acknowledging and addressing the multiple definitions, meanings, and practices associated with RU across nursing disciplinary domains. The lack of consistency in the nursing literature and nursing competencies is reflected in the challenges in creating a clear, consistent, and intentional approach to acculturation in RU. Second, the core of most nursing education curricula may not explicitly identify and guide the process of acculturation to RU. Faculty across many programs are in the midst of curricular evaluation, revision, and developmental processes to update the essential elements of their curricular core. In the midst of these complex initiatives, professional values, attitudes, and norms such as RU may not be deemed the most salient consideration for inclusion within the curricular core. Consequently RU may not generally be intentionally threaded throughout the nursing education curricula, as evidenced in this study.

Intentional learning experiences reflective of consistent and clearly articulated definitions and processes for RU are needed for students to not only understand RU, but also to develop the intention and efficacy needed to engage in the process of RU. In a review of studies of social cognitive theories and healthcare professionals' behaviours, Godin, Belanger-Gravel, Eccles, and Grimshaw found that capability beliefs and intentions were associated consistently with the intentional performance of specific clearly articulated clinical behaviours.<sup>[52]</sup> Wallin *et al.* contend that it is difficult for students to develop capability beliefs and self-efficacy if they do not have learning experiences that allow for successful and complete enactment of a clearly articulated RU process.<sup>[53]</sup> A consistent understanding and practice of RU, as well as learning experiences reflecting these shared meanings and processes assists students in the development of self-efficacy in RU.

The findings of this study have implications for educators relative to their roles and responsibilities for developing and implementing curricula. The mandate of professional education, mediated by the process of acculturation, includes fostering the development of professional values, attitudes,



and norms.<sup>[54]</sup> A commitment to specific values, attitudes, and norms, such as those of RU, relies on the coordinated and coherent effort of individual educators to guide its purposeful enactment.<sup>[22]</sup> In order to support the professional development of students, educators need to understand and promote shared values, attitudes, and norms programmatically, through both curricula and curricula-in-action. Articulating agreed-upon descriptions or definitions of key curricular concepts,<sup>[44]</sup> such as RU, is a beginning step in this process.

The values, attitudes, and norms of any professional education program need to be intentionally integrated across courses and learning experiences that make up both the formal curriculum and curriculum-in-action. Such integration should include a leveled approach whereby students are introduced to and experience increasing depth and complexity relative to a particular value as they progress toward degree completion.<sup>[25]</sup> Careful and intentional curricular planning and implementation need to be completed in order to ensure that students comprehensively and meaningfully integrate curricular values, attitudes, and norms into their professional practice.

### Recommendations for nursing education practice

Recommendations stemming from the findings can be applied both at the programmatic level and by individual educators. It is recommended that programs: (a) orient novice educators or educators new to a particular program to integral curricular values, attitudes, and norms and curricular approaches to their acculturation; (b) develop program manuals that include sections outlining professional values, attitudes, and norms identified by the program with clear definitions included; (c) critically evaluate learning experiences relative to their fit with the acculturation to values, attitudes, and norms; (d) and adopt and evaluate formal elements of the course structure (such as course objectives and goals, to assignments and practice experience evaluations) that are appropriate for the acculturation of identified values, attitudes, and norms.

For educators it is recommended to: (a) understand and es-

pouse the professional values, attitudes, and norms that have been identified by the program; (b) meaningfully integrate these values, attitudes, and norms into their teaching/learning experiences in the curriculum-in-action; (c) critically evaluate and develop the integration of values, attitudes, and norms across all of the courses that they teach; and (d) adopt teaching/learning methods that have students assess their experiences using critical reflection to identify and rationally evaluate the assumptions and values, attitudes, and norms that guide their practice of RU.

## 7. CONCLUSION

This is the first study known to examine the enactment of acculturation to RU within an undergraduate nursing program curriculum-in-action. Overall, the unintentionality of the social construction of acculturation to RU across the nursing education curriculum and curriculum-in-action was identified. Both the use and role of unintentional curricular language and the variable enactment of values, norms, and goals across educational experiences and contexts reflected this overall finding. An intentional approach to acculturation to valued professional attributes within the curriculum-in-action of nursing programs through the definition and implementation of appropriate teaching methods to promote student acculturation is essential to socially construct the professional practice of nursing through formalized professional education.

This study has added to the nursing education literature by uncovering how RU acculturation is enacted in one curriculum, mainly from a faculty perspective. Future research is needed to reveal the acculturation process from a student perspective. While this study highlights the need for the development of curriculum with a clear and agreed-upon focus and approach to key curricular values, norms, and goals, it is important that further research explores student attitudes and which experiences they perceive as meaningful within the acculturation process

## CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

## REFERENCES

- [1] Estabrooks CA. Will evidence-based nursing practice make practice perfect? *Canadian Journal of Nursing Research*. 1998; 30: 15-36. PMID:9726180
- [2] Profetto-McGrath J, Smith K, Hugo K, *et al*. Nurse educators' critical thinking dispositions and research utilization. *Nurse Education in Practice*. 2009; 9: 199-208. PMID:18701349 <http://dx.doi.org/10.1016/j.nepr.2008.06.003>
- [3] Canadian Nurses Association. Position statement: Evidence-informed decision making and nursing practice. 2009. Available from: [https://www.cna-aiic.ca/~media/cna/page%20content/pdf%20en/2013/07/26/10/52/ps113\\_evidence\\_info\\_rmed\\_2010\\_e.pdf](https://www.cna-aiic.ca/~media/cna/page%20content/pdf%20en/2013/07/26/10/52/ps113_evidence_info_rmed_2010_e.pdf)
- [4] Melnyk B, Gallagher-Ford L, Long L, *et al*. The establishment of

- evidence-based practice competencies for practicing registered nurses and advanced practice nurses in real-world clinical settings: proficiencies to improve healthcare quality, reliability, patient outcomes, and costs. *Worldviews on Evidence-Based Nursing*. 2014; 11: 5-15. <http://dx.doi.org/10.1111/wvn.12021>
- [5] Forsman H, Gustavsson P, Ehrenberg A, *et al.* Research use in clinical practice - extent and patterns among nurses one and three years postgraduation. *Journal of Advanced Nursing*. 2009; 65: 1195-1206. <http://dx.doi.org/10.1111/j.1365-2648.2008.04942.x>
- [6] Squires J, Estabrooks E, Gustavsson P, *et al.* Individual determinants of research utilization by nurses: a systematic review update. *Implementation Science*. 2011; 6: 1-20. <http://dx.doi.org/10.1186/1748-5908-6-1>
- [7] Thompson D, Moore K, Estabrooks C. Increasing research use in nursing: implications for clinical educators and managers. *Evidence Based Nursing*. 2008; 11: 35-39. PMID:18364409 <http://dx.doi.org/10.1136/ebn.11.2.35>
- [8] Estabrooks CA. Mapping the research utilization field in nursing. *Canadian Journal of Nursing Research*. 2009; 41: 218-236. PMID:19485054
- [9] Spiers JA, Paul P, Jennings D, *et al.* Strategies for engaging undergraduate nursing students in reading and using qualitative research. *The Qualitative Report*. 2012; 17: 1-22.
- [10] American Nurses Association. Code of ethics for nurses with interpretive statements. 2015. Available from: <https://www.nursebooks.org>
- [11] Canadian Nurses Association. Code of Ethics. Ottawa: Canadian Nurses Association; 2008. 9 p.
- [12] Canadian Association of Schools of Nursing. CASN position statement on baccalaureate education and baccalaureate programs clinical practice education. 2005. Available from: <http://www.casn.ca/en/68.html>
- [13] American Nurses Association (Ed.). *Nursing: scope and standards of practice* (2nd ed). Silver Spring, Md: American Nurses Association. 2010.
- [14] Baessler C, Blumberg M, Cunningham, J, *et al.* Medical-surgical nurses' utilization of research methods and products. *Medical/Surgical Journal of Nursing*. 1994; 3: 113-117.
- [15] Estabrooks C, Rutakumwa K, O'Leary K, *et al.* Sources of practice knowledge among nurses. *Qualitative Health Research*. 2005; 15: 460-476. <http://dx.doi.org/10.1177/1049732304273702>
- [16] Estabrooks CA, Chong H, Brigidear K, *et al.* Profiling Canadian nurses' preferred knowledge sources for clinical practice. *Canadian Journal of Nursing Research*. 2005; 37: 119-140.
- [17] Estabrooks C, Kenny D, Adewale A, *et al.* A comparison of research utilization among nurses working in Canadian civilian and United States Army healthcare settings. *Research in Nursing & Health*. 2007; 30: 282-296. <http://dx.doi.org/10.1002/nurs.20218>
- [18] Funk S, Champagne M, Wiese R, *et al.* BARRIERS: the barriers to research utilization scale. *Applied Nursing Research*. 1991; 4: II-46-II-54. [http://dx.doi.org/10.1016/S0897-1897\(05\)80052-7](http://dx.doi.org/10.1016/S0897-1897(05)80052-7)
- [19] du Toit D. A sociological analysis of the extent and influence of professional socialization on the development of a nursing identity among nursing students at two universities in Brisbane, Australia. *Journal of Advanced Nursing*. 1995; 21: 164-171. PMID:7897070 <http://dx.doi.org/10.1046/j.1365-2648.1995.21010164.x>
- [20] Rush K, McCracken B, Talley C. Nursing students' self-perceptions as insiders in the practice culture. *Nurse Education in Practice*. 2009; 9: 314-321. <http://dx.doi.org/10.1016/j.nepr.2008.08.003>
- [21] Condon E, Sharts-Hopko N. Socialization of Japanese nursing students. *Nursing Education Perspectives*. 2010; 31: 167-170. PMID:20635621
- [22] Joseph P. Conceptualizing curriculum. In P. Joseph (Ed.), *Cultures of Curriculum* (pp. 3-22). New York: Routledge. 2011.
- [23] Polk GC. Research & clinical practice: Building a nursing research culture. *Journal of Psychosocial Nursing & Mental Health Services*. 1998; 27: 24.
- [24] Cialdini RB, Trost MR. Social influence: Social norms, conformity and compliance. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology*, Vols. 1 and 2 (4th ed.) (pp.151-192). New York, NY, US: McGraw-Hill. 1998.
- [25] Iwasiw CL, Goldenberg D. *Curriculum development in nursing education* (3rd ed.). Burlington, MA: Jones and Barlett Learning. 2015.
- [26] Moch S, Cronje R, Branson J. Part 1. Undergraduate nursing evidence-based practice education: Envisioning the role of students. *Journal of Professional Nursing*. 2010; 26: 5-13. <http://dx.doi.org/10.1016/j.profnurs.2009.01.015>
- [27] August-Brady M. The effect of a metacognitive intervention on approach to and self-regulation of learning in baccalaureate nursing students. *Journal of Nursing Education*. 2005; 44: 297-304. PMID:16094787
- [28] Burke L, Schlenk E, Sereika S, *et al.* Developing research competence to support evidence-based practice. *Journal of Professional Nursing*. 2005; 21: 358-363. <http://dx.doi.org/10.1016/j.profnurs.2005.10.011>
- [29] Ervin N, Cowell J. Integrating research into teaching public health nursing. *Public Health Nursing*. 2004; 21: 183-190. PMID:14987219 <http://dx.doi.org/10.1016/j.nedt.2004.07.004>
- [30] Mattila L, Eriksson E. Nursing students learning to utilize nursing research in clinical practice. *Nurse Education Today*. 2007; 27: 568-576. <http://dx.doi.org/10.1016/j.nedt.2006.08.018>
- [31] Morse W, Oleson M, Duffy L, *et al.* Connecting the research and nursing processes: Making a difference in baccalaureate students' attitudes and abilities. *Journal of Nursing Education*. 1996; 35: 148-151. PMID:8830127
- [32] Shuster GF, Learn CD, Duncan R. A strategy for involving on-campus and distance students in a nursing research course. *Journal of Continuing Education in Nursing*. 2003; 34: 108-115. PMID:12772809
- [33] Forsman H, Rudman A, Gustavsson P, *et al.* Use of research by nurses during their first two years after graduating. *Journal of Advanced Nursing*. 2010; 66: 878-890. <http://dx.doi.org/10.1111/j.1365-2648.2009.05223.x>
- [34] Dinmohammadi M, Peyrovi H, Mehrdad N. Concept analysis of professional socialization in nursing. *Nursing Forum*. 2013; 48: 26-34. <http://dx.doi.org/10.1111/nurf.12006>
- [35] Ware S. Developing a self-concept of nurse in baccalaureate nursing students. *International Journal of Nursing Education Scholarship*. 2008; 5: 1-11. <http://dx.doi.org/10.2202/1548-923X.1500>
- [36] Brown J, Stevens J, Kermod S. Supporting student nurse professionalization: The role of the clinical teacher. *Nurse Education Today*. 2012; 32: 606-610. <http://dx.doi.org/10.1016/j.nedt.2011.08.007>
- [37] Campbell IE, Larrivee L, Field PA, *et al.* Learning to nurse in the clinical setting. *Journal of Advanced Nursing*. 1994; 20: 1125-1131. <http://dx.doi.org/10.1046/j.13652648.1994.20061125.x>
- [38] Carlson E, Pilhammer E, Wann-Hansson C. "This is nursing": Nursing roles as mediated by precepting nurses during clinical practice. *Nurse Education Today*. 2010; 30: 763-767. <http://dx.doi.org/10.1016/j.nedt.2010.01.020>

- [39] Day R, Field P, Campbell I, *et al.* Students' evolving beliefs about nursing: From entry to graduation in a four-year baccalaureate programme. *Nurse Education Today*. 2005; 25: 636-643. PMID:16290326 <http://dx.doi.org/10.1016/j.nedt.2005.09.003>
- [40] Goldenberg D, Iwasiw C. Professional socialization of nursing students as an outcome of a senior clinical preceptorship. *Nurse Education Today*. 1993; 13: 3-15. [http://dx.doi.org/10.1016/0260-6917\(93\)90003-K](http://dx.doi.org/10.1016/0260-6917(93)90003-K)
- [41] Mackintosh C. Caring: The socialization of pre-registration student nurses: A longitudinal descriptive study. *International Journal of Nursing Studies*. 2006; 43: 953-962. <http://dx.doi.org/10.1016/j.ijnurstu.2005.11.006>
- [42] Mansour T, Porter E. Educators' experience of teaching nursing research to undergraduates. *Western Journal of Nursing Research*. 2008; 30: 888-904. <http://dx.doi.org/10.1177/0193945907312975>
- [43] Porter E, Mansour T. Teaching nursing research to undergraduates: A text analysis of instructors' intentions. *Research in Nursing & Health*. 2003; 26: 128-142. <http://dx.doi.org/10.1002/nur.10078>
- [44] Iwasiw C, Goldenberg D, Andrusyszyn M. Extending the evidence base for nursing education. *International Journal of Education Scholarship*. 2005; 2: 1-4. <http://dx.doi.org/10.2202/1548-923x.1107>
- [45] Knoblauch H. Focused ethnography. *Forum: Qualitative Social Research*. 2005; 6: 1-11.
- [46] Morse J, Richards L. *Read Me First for a User's Guide to Qualitative Methods*. Thousand Oaks: Sage; 2002.
- [47] McElroy TA, Davis A, Hunt C, *et al.* Navigating a way forward: Using focused ethnography and community readiness to study disability issues in Ladakh, India. *Disability & Rehabilitation*. 2011; 33: 17-27. <http://dx.doi.org/10.3109/09638288.2010.485670>
- [48] Hammersley M, Atkinson P. *Ethnography: Principles in Practice*, 3rd ed. New York: Routledge. 2007.
- [49] Lofland J. *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis*. 4th ed. Belmont: Wadsworth. 2006.
- [50] Kuzel A, Like R. Standards of trustworthiness for qualitative studies in primary care. In P.G. Norton *et al.* *Primary Care Research: Traditional and Innovative Approaches* (pp. 138-158). Newbury Park: Sage; 1991.
- [51] Coles C, Grant J. Curriculum evaluation in medical and health-care education. *Medical Education*. 1985; 19: 405-422. <http://dx.doi.org/10.1111/j.1365-2923.1985.tb01345.x>
- [52] Godin G, Belanger-Gravel A, Eccles M, *et al.* Healthcare professionals' intentions and behaviours: A systematic review of studies based on social cognitive theories. *Implementation Science*. 2008; 3. <http://dx.doi.org/10.1186/1748-5908-3-36>
- [53] Wallin L, Boström A, Gustavsson J. Capability beliefs regarding evidence-based practice are associated with application of EBP and research use: Validation of a new measure. *Worldviews on Evidence-Based Nursing*. 2012; 9: 139-148. <http://dx.doi.org/10.1111/j.1741-6787.2012.00248>
- [54] O'Connor SJ. Developing professional habitus: A bernsteinian analysis of the modern nurse apprenticeship. *Nurse Education Today*. 2007; 27: 748-754. <http://dx.doi.org/10.1016/j.nedt.2006>