Intersection of migration and turnover theories—What can we learn?

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ABSTRACT

Background: The international migration of nurses has become a major issue in the international health and workforce policy circles, but analyses are not based on a comprehensive theory.

Purpose: The purpose of this article was to compare the concepts of an integrated nursing turnover theory with the concepts of one international migration framework.

Methods: An integrated turnover theory is compared with a frequently used migration framework using examples of each.

Discussion: Migration concepts relate well to turnover concepts, but the relative importance and strength of various concepts may differ. For example, identification, development, and measurement of the concept of national commitment, if it exists, is parallel to organizational commitment and may be fruitful in understanding the processes that lead to nurse migration.

Conclusions: The turnover theory provides a framework for examining migration concepts and considering how these concepts could relate to each other in a future theory of migration. Ultimately, a better understanding of the relationships and strengths of these concepts could lead to more effective policy.

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Introduction

The international migration of registered nurses (RNs) and RN organizational turnover are similar concepts, both of which entail RNs leaving somewhere and going somewhere else. In the case of migration, RNs leave one country and go to another, whereas in organizational turnover RNs leave one organization and go to another organization or leave the RN workforce. Turnover results from individual decisions about RNs' perceptions of their work and personal environment that result in the decision to leave. International migration results from a similar decision-making process at the individual level but is usually conceptualized at a societal or macro-level. The purpose of this article is to compare the two models to see where turnover theory can expand the thinking about migration or vice versa.

From 2000 to 2008, the United States experienced a nursing shortage. This shortage was fueled by factors in three broad areas: (1) a rising international prosperity

and increased demand for health care, (2) years of stagnant nursing wages and poor working conditions that reduced the number of applicants and new graduates, and (3) slowed expansion of the supply because of a lack of faculty (American Association of Colleges of Nursing [AACN], 2012).

In the United States, the nursing workforce is aging, leading to fears of a future acute RN shortage as RNs retire (U.S. Department of Health and Human Services, Health Resources and Services Administration, 2010). In addition, aging and the incidence of communicable and chronic diseases (e.g., bird flu epidemic and AIDS), among other issues, indicated that the health care needs of the population would be increasing. The 2000 to 2008 shortage was felt most acutely in hospitals because most (87.3%) new graduates begin their nursing careers in hospitals. Also, hospitals are often the research and publicity focus because turnover in hospitals is more easily measurable and more visible compared with settings such as ambulatory care (Kovner et al., 2007; Kovner & Brewer, 2012).

"Turnover" problems exist worldwide at the country level, but migration usually considers both the country from which the RN leaves and the one to which they go, whereas organizational turnover is usually concerned primarily with the organization the nurse leaves. The shortages in developed countries created "pull" factors for the RNs in less developed countries (Aiken, 2007; Kingma, 2007) that exacerbated RN shortages in underdeveloped countries such as Ghana, India, and Malawi such that the international migration of nurses became a major issue in international health and workforce policy circles (Kingma, 2007; Kingma, 2009). International migration fell for the 3 years before 2010 because the recession helped to abate the shortage in developed countries but increased again in 2012 in the United States, Australia, New Zeal, and most Organisation for Economic Co-operation and Development countries (International Center on Nurse Migration [ICNM], 2012). This may presage a new round of health workforce migration. Research on international nursing migration is fairly recent, whereas research on employee (including nurse) turnover has been robust in the last 30 years.

Nurse Turnover

We developed the Brewer-Kovner original model based on Price's work (Price, 2001; Brewer, Kovner, Greene, & Cheng, 2009; Brewer, Kovner, Greene, Tukov-Shuser, & Djukic, 2012) and over time have integrated additional constructs such as shock and "embeddedness" (Morrell, Loan-Clarke, Arnold, & Wilkinson, 2008; Holtom, Mitchell, Lee, & Eberly, 2008; Eberly, Holtom, Lee, & Mitchell, 2009). Recent syntheses of the turnover literature (Gilmartin, 2012; Holtom et al., 2008) compare general turnover theory and turnover models used in nursing to research on turnover theory and models in

management. Hayes et al. (2012) also reviewed nursing turnover literature from the last 6 years, which builds on their previous work (Hayes et al., 2006), without developing an integrated model. However, these reviews are remarkably similar in the kinds of constructs included as predictors of turnover.

Gilmartin's integrated nursing turnover model is only slightly modified from Holtom et al. (2008, p. 244). Earlier turnover research is based on individual differences (e.g., ability) and the nature of the job (e.g., autonomy) that impact key attitudes, such as satisfaction and organization commitment. More recent research built upon these ideas and added newer constructs, such as stress and strain or burnout (see Table 1). These factors are affected by the macro-organizational context that depends on the organizational or unit size, group cohesion and organizational culture, reward systems, and the person-environment fit within that system (e.g., leadership, embeddedness, engagement, and justice). Individual differences, the nature of the job, and attitudes interact to lead to withdrawal cognitions as the nurse develops a decision about whether to leave and weighing the job alternatives such as job availability. Withdrawal behaviors (intent to and actual job search) may lead to declines in individual performance or actual withdrawal behaviors (absence and lateness). Job search gateways (shocks and unsolicited job offers) may come into play at this point (or earlier although this is not addressed in the model). Voluntary turnover is likely to be the result, with resulting outcomes for the organization of human capital losses, potential organizational performance (e.g., quality of care and outcomes problems), and additional turnover. The individual also may experience changes in job satisfaction or strain at the next job. Hayes et al. (2012) also examined outcomes of turnover because that had been a criticism of their previous work (Hayes et al., 2006).

Turnover, like migration, is a process that takes place over a length of time that is individually variable, but longitudinal research is exceptionally scarce to evaluate temporal components and causality issues. Thus, intent to stay or leave, as a component of withdrawal cognitions, is frequently used as a more proximal indicator of potential turnover that can be addressed in a cross-sectional study (Brewer et al., 2009; Kovner et al., 2007).

Nurse Mobility and Migration

The negative effects of the globalization of the nursing workforce through migration on donor countries have been emphasized in the literature while recognizing the benefits to individual nurses (Clark, Stewart, & Clark, 2006; Kingma, 2007). The flow of nurses out of underdeveloped countries to developed countries resulted in great concern about quality of care of the health care systems in underdeveloped countries. Clark et al. (2006)

Table 1 – Comparison of Turnover Theory to Migration Push/Pull Factors		
Integrated Turnover Model (Gilmartin, 2012)	Examples of Organizational Turnover Constructs	Examples of Migration push and pull factors (Kingma, 2008)
Individual differences	Ability Personality (*positive affect*)	Nurses with more adventurousness

Nature of the job	*Routinization*
	  Job scope
	  Autonomy
	  Workload
		Workloads increased by shortages
		  Lack of autonomy, paternalistic systems of health care

Attitudes	**Job satisfaction**
	  Organizational commitment
	  Stress
	  Promotional opportunities
		Low job satisfaction
		  Low organizational/country commitment
		  High stress, few promotional opportunities (leading to higher wages)

Macro organizational context	Organizational culture
	  Organizational climate
	  Group cohesion
	  Unit level attitudes
		Migration culture within schools and among nurses in the community
		  Lack of long-term group cohesion because of frequent turnover
		  Abusive or bullying cultures

Person environment fit	Leadership
	  Peer and supervisor support
	  MD/RN relations
	  Justice
		Lack of strong leadership
		  Paternalistic physician relations
		  Lack of fairness in pay and discipline
		  More family support and resources?

Withdrawal cognitions	**Intention to leave (stay)**
	  Personal costs of turnover
	  Advance quitting plan
		Intention to migrate
		  Resource availability to plan and move
		  Regulations governing migration

Job alternatives	*Job availability/unemployment*
	  Perceived alternatives
		Availability of local/national jobs
		  Role of family or friends already migrated
		  Role of traveler agencies
		  Resource availability to get information
		  Regulations governing migration

Withdrawal behaviors	Active or passive job search
	  Intent to search
		Active or passive job search
		  Intent to search
		  Development of specific plan

Withdrawal	Absence
	  Lateness
		Absence
		  Lateness
		  Value placed on and involvement in current job

Performance	Quality of work	Quality of work
Job search gateways	**Shocks**/critical events Spontaneous job offers	Acute need for money for house or business
Voluntary turnover	**Turnover**	Migration

Outcomes-
  Individual
  Organizational
	Strain and satisfaction at next job
	  Human and social capital losses
	  Increased turnover
		Satisfaction at next job
		  Need to learn new skills, culture, language
		  Long term stability in first placement/job

Bold constructs are major constructs of Brewer-Kovner model. Italicized constructs are common to both the Brewer-Kovner and integrated model.

documented shortages and vacancies worldwide. The United Kingdom, which is an example of a developed country, had 57,000 fewer nurses than needed to fill the demand in 2001, and Australia was expected to have only 60% of its need for nurses filled by 2006. In contrast, in 2003, 35% of nursing jobs in the Caribbean were vacant. The nursing workforce decreased by 12% from 2000 to 2003 in South Africa (Ogilvie, Mill, Astle, Fanning, & Opare, 2007). Sub-Saharan Africa had a collective shortfall of 600,000 nurses in 2004. The Philippines, despite exporting nurses, had vacancies of 30,000 RNs in 2003 (International Council of Nurses [ICN], 2004).

Kingma (2007) calls the United States the "epicenter" of nurse migration, so changes in the U.S. level of shortages is expected to have a significant ripple effect on nurse migration around the world. Current estimates of the growth in the U.S. supply of RNs (Auerbach, Buerhaus, & Staiger, 2011) have increased by 2% per year because of increases in the number of older RNs remaining in the workforce and a 62% upsurge in younger entrants (i.e., 23-26 years) into nursing. If this rate is maintained, supply will meet expected demand, but if it falls to previous rates of growth, supply will be 15% lower than expected demand by 2030, potentially fueling increased migration.

Migration Frameworks

Researchers using migration frameworks focus on macro-level factors influencing the developing country, which can be difficult to measure, rather than the individual (micro) perceptions of nurses

experiencing these macro events as do turnover researchers. A frequently used framework for discussing nurse migration is one of the "push" factors (based on supply concepts from economic theories) and "pull" factors (based on demand concepts) (Clark et al., 2006; Kline, 2003; Mejía, Pizurki, & Royston, 1979). Pull factors are in receiving countries, and push factors are in donor countries (Kingma 2007). Kingma (2001) identified the common pull factors as follows: (1) better educational and practice opportunities, (2) higher wages, (3) better working conditions, and (4) higher standards of living.

Pull factors of wages are particularly powerful because wages in developed countries like Canada and Australia can be 2 to 25 times those in South Africa or Zambia (Brown, 2003). Markets require both information and mobility to function efficiently, and developed countries have worked to make these barriers lower by providing information about jobs and the migration process on the Internet, facilitating global placement agencies and visa information (Buchan & Dovolo, 2004). Migration is not without benefits to donor countries. Remittances are a significant source of income, and if nurses return, they usually bring with them advanced skills and knowledge (Forcier, Simoens, & Giuffrida, 2004).

Push factors are condition(s) in the home country that the migrant wants to leave such as a lack of personal safety caused by the disease burden for AIDS or political turmoil that may place the nurse or the nurse's family at risk. These factors are often the reverse of the pull factors (e.g., poorer working conditions and lower wages). Push and pull factors can also exist within countries, such as between a public health care system and the private health care system (Kingma, 2007; Kingma, 2008) or between large urban areas and rural areas. Sidebotham and Ahern (2011) studied 18 midwives who had migrated from the United Kingdom to one state in Australia. Push factors were bullying; harassment; stress and burnout; increasing workload; cost of living; and dissatisfaction with their pay in relation to living costs, conditions of work, the political system, and with midwifery in general in the United Kingdom. Australian pull factors included in the study were visa issues related to an age limit of 45 years, improvement of their family lives, doing something different and challenging, and advice from colleagues and friends that life was better in Australia.

Clark et al. (2006) discussed several additional migration frameworks, some of which are based on theory. The human capital (HC) theory (from economics; Mincer, 1974) is "the abilities and skills of any individual, especially those acquired through investment in education and training, that enhance potential income earning" (Human Capital, 2012). HC issues in migration address the costs to migrants of gaining HC in the new country and to employers that provide it. HC costs are expected to be shared by the employer and trainee. The costs incurred could justify

a repayment policy if the trainee leaves. One issue is determining the value of HC acquired in a sophisticated health care system when the nurse returns to a poor country that has less advanced medical care.

Clark and Clark (2004) suggest in a neocolonial framework that migration continues (Clark & Clark, 2004) because of the vested colonial interests of "elites" in the donor country. The elites are insulated from deteriorating health care systems because of the coexistence of private systems, they promote these sophisticated health care systems, and they can enforce a lower wage and position based on claims of country-specific retraining needs (Physicians for Human Rights [PHR], 2004). The elite members of the society are insulated from deteriorating health care systems because of the coexistence of private health care systems. These elite members of society promote these sophisticated health care systems, and they can enforce a lower wage and position based on claims of country-specific retraining needs.

Clark et al. (2006) described the many aspects of economies that are intertwined, including health care using a globalization framework. International and transnational regulatory bodies and multinational corporations may have the de facto power of national governments to regulate trade, leaving workers vulnerable to exploitation. They recommend that recruiting countries should address causes of shortages in their own countries to avoid recruiting foreign nurses in the first place, and donor countries also need to address salaries and working conditions. These recommendations are closely related to the turnover theory. Turnover research is usually justified based on the idea that understanding individual reasons for leaving an employer will translate into solutions that can be implemented to help attract and retain nurses. Ultimately, whether migration is a good or bad event and solvable or unsolvable depends to some extent on the theoretical lens through which the analysis occurs.
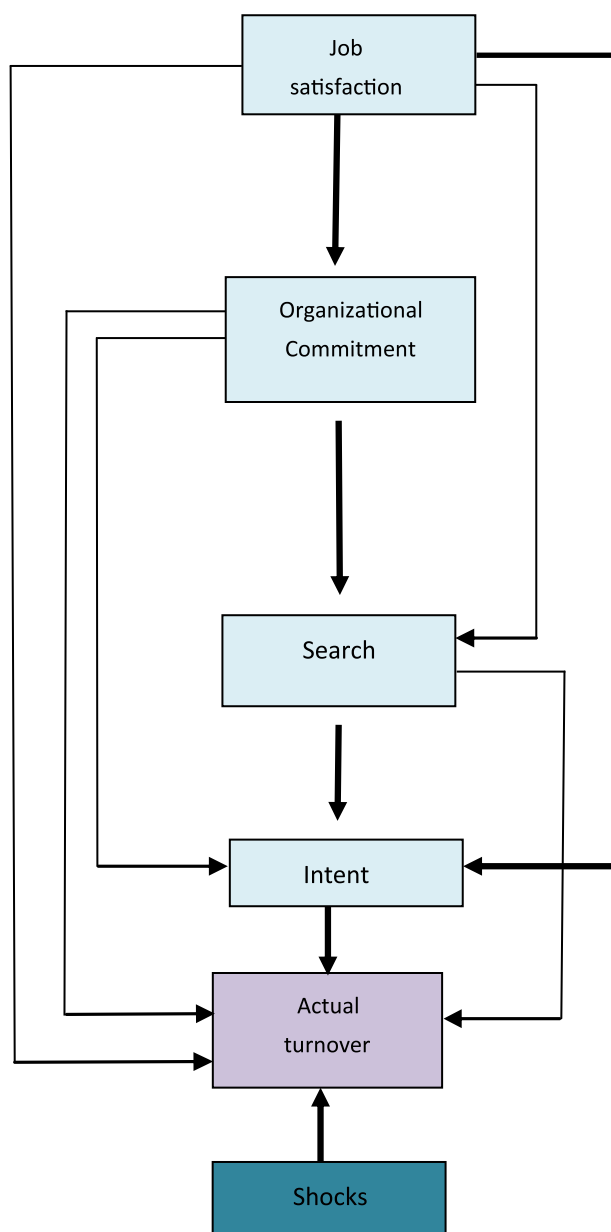
Points of Intersection

The turnover theory may suggest how to expand and develop migration frameworks into a more comprehensive theory. In the rest of this article, we explore the relationship of the integrated turnover theories as described by Gilmartin and Brewer and Kovner with the "push and pull" migration framework. "Push and pull" language is frequently used in the migration literature and will be the basis for comparison because there is considerable agreement on what these concepts are.

Turnover literature includes a wide variety of predictors of turnover (e.g., autonomy and physician–nurse relations). Unfortunately, turnover reviews do not synthesize studies that use the same concepts encompassing a complete model. Thus, a wide variety of concepts may be significant in predicting turnover or

Figure 1 − Brewer-Kovner Model of Turnover. Heavy Lines Indicate the Strongest Evidence for the Relationship.

Zangaro, 2010; Garbee & Killacky, 2008; Griffeth, Steel, Allen, & Bryan, 2005; Gurney, Mueller, & Price, 1997; Ingersoll, Olsan, Drew-Cates, DeVinney, & Davies, 2002; Kim & Hwang, 2011; Kim, Price, Mueller, & Watson, 1996; Beecroft, Dorey, & Wenten, 2008; Halbesleben & Wheeler, 2008; De Gieter, Hofmans, & Pepermans, 2011; Simon, Müller, & Hasselhorn, 2010; Wang, Tao, Ellenbecker, & Liu, 2012); our study also included the major proximal variables to turnover (i.e., job search, organizational commitment, and intent) or to intent (i.e., job search and organizational commitment). Studies that used intent to leave (or stay in) a job as the most proximal predictor of turnover were the following: Mueller & Price (1990), Cox et al. (2010), Garbee & Killacky (2008), Griffeth et al. (2005), Gurney et al. (1997), Ingersoll et al. (2002), Kim & Hwang (2011), Kim et al. (1996), Simon et al. (2010), Beecroft et al. (2008), Halbesleben et al. (2008), De Gieter et al. (2011) and Wang et al. (2012). Studies that included turnover as the dependent variable were rare (i.e., Allen et al., 2003; Blau, 2007; Brewer et al., 2012; Camerino et al., 2008; Griffeth et al., 2000; and Mueller & Price, 1990). Unfortunately, only two of these studies also included job search (Blau, 2007; Brewer et al., 2012).

Job search is defined as an individual taking action to create job opportunities in other organizations (Swider, Boswell, & Zimmerman, 2011). Researchers have measured intention to search as well as job search behaviors such as job search methods, activities, and intensity (Caska, 1998; Sager, Griffeth, & Hom, 1998; Song, 2004; Van Hooft, Born, Taris, Flier, & Blonk, 2004; Van Ryn & Vinokur, 1992; Wanberg, Glomb, Song, & Sorenson, 2005). Our simplified model supports the reviews cited here. For example, satisfaction may be a significant direct predictor of turnover if organizational commitment and intent are omitted from a model analysis but not if either of these variables is included in the model. In Brewer et al. (2012), none of the variables commonly considered as important in predicting satisfaction (e.g. autonomy and workload) directly influenced turnover; in fact, only when intent was removed from the model did satisfaction and organizational commitment become significant. Thus, it is critically important to understand all the major elements of a turnover model and consider them together to avoid an underspecified model (Knapp, 1985). Our model of the key factors of turnover in turn fits into the larger integrated model resulting from the literature review of Gilmartin (2012) discussed later. However, there has been no study that has simultaneously tested the entire model suggested by Gilmartin's review, so understanding the key variables we propose, which have been tested simultaneously, is useful. There is also no research that uses a turnover model to predict migration.

The parallels between turnover and migration theories seem clear (Table 1), but little work has been completed to identify how push and pull factors are related to each other for a given nurse and result in

its precursors, but the concepts may not be used across all studies. Another problem is that the measures of these concepts vary among studies (Lu, Barriball, Zhang, & While, 2012).

First, we focus on the Brewer-Kovner model of turnover (Figure 1), which has the following five key concepts (at least one of which has been used in most turnover research): turnover, intent to leave, job search, organizational commitment, and job satisfaction. Our model is based on 18 empirical studies (Allen, Shore, & Griffeth, 2003; Blau, 2007; Brewer et al., 2012; Camerino et al., 2008; Griffeth, Hom, & Gaertner, 2000; Mueller & Price, 1990; Cox, Relf, Chen, &

a decision to emigrate. Section headings (discussed later and in Table 1) come from Gilmartin's integrated nursing turnover model (Gilmartin, 2012). (Concepts also included in the Brewer-Kovner model are italicized in Table 1.) Examples from the integrated turnover models and migration factors are given in Table 1. The comparison suggests how these concepts may be related if relationships similar to turnover theory hold. Turnover could be considered a special kind or subset of migration in which national policies may play a strong role not as evident in turnover. For example, nurses who train to be a nurse in the Philippines, which has an explicit policy of training nurses for export, do so knowing that the odds of obtaining a job in the Philippines is small. They select nursing because they want to migrate; thus, the intent to leave is already present even before training.

Individual Differences

Nurse personalities differ. Brewer et al. (Kovner, Brewer, & Greene, 2009; Price, 2001) have used positive affect to control for the effect of this personality type on satisfaction (Table 1). Some domestic nurses take traveler jobs because it allows them to experience many different work environments and living environments. Nurses who travel internationally may have the same zest. However, personality differences have been mostly unexplored in both kinds of research.

Nature of the Job

The nature or attributes of the job, when negative, are clearly a push factor for domestic turnover as well as international turnover. For example, a nurse who wants voluntary rather than mandatory overtime may be more likely to leave (Brewer et al., 2012). Shortages have always created environments that are more difficult to work in because of unit level instability in staffing and understaffing. Shortages also create opportunities (pull factors) to find a job that fits the nurses' needs better in whatever way the nurse defines "better" (e.g., work environment, location, pay, hours, and so on).

Attitudes and Perceptions

Our research measures 22 concepts (e.g., supervisor support, autonomy, variety, and embeddedness) shown to predict satisfaction, organizational commitment, search, intent to leave, or turnover in the literature. There is a great deal of research on additional factors such as burnout (Bartram, Casimir, Djurkovic, Leggat, & Stanton, 2012; Steel & Lounsbury, 2009) and others (Blau, 2007; Eberly et al., 2009; Lu et al., 2012; Skillman, Palazzo, Hart, & Keepnews, 2010; Swider et al., 2011) that have also indicated a relationship to turnover. There is general agreement that satisfaction and organizational commitment and their predictors are key factors predicting turnover; thus, international nurses whose countries have a policy of exporting

nurses could be expected to have a low national commitment at the outset regardless of any level of job satisfaction. For example, do exporting countries such as the Philippines have enough jobs to provide work experience for all of their nurses? Do they leave immediately after graduation, and if not what do they do? Job satisfaction may be less important in this case than the intent to migrate. Understanding the relative strength of factors that produce turnover or migration could be very useful to policy makers.

Macro-organizational Context

Just as abusive work cultures that devalue employees and uncivil behavior produce low satisfaction and high turnover within an organization, national cultures or health care systems that are dysfunctional or do not value their nursing workforce are likely to have high turnover/migration (Chikanda, 2005). The destabilizing effects of high migration will further impact the work environment and quality of care in the source country, creating a difficult cycle to break (Dovlo, 2005; Kingma, 2007; Kline, 2003). An organization and country that have worked hard to have a stable and strong health care system with a positive organizational culture and/or work climate may keep their nurses; however, underdeveloped countries have significant challenges in achieving this because of funding and other constraints.

Person−Environment Fit

Several researchers have studied the impact of embeddedness in work and/or community on organizational turnover, which includes the nurses' fit into the organization, the fairness of pay and discipline, degree of mentoring and support, and the quality of leadership, particularly for new nurses (Halfer, 2011; Reitz & Anderson, 2011; Sun, Zhao, Yang, & Fan, 2012). Similarly, community embeddedness may impact migration. Closeness to or dependence on family and community ties can retain nurses in the face of an entrenched migration culture or negative work environment.

Withdrawal Cognitions

Morrell et al. (2008) and Lee, Gerhart, Weller, and Trevor (2008) have proposed four major turnover pathways along which nurses may travel. The process a nurse follows to migrate may have many similarities to turnover withdrawal cognitions. Nurses often look passively for other work opportunities without any intent to actually leave. Generally, nurses will develop an internal barometer of what would make it "worth it" to leave, which results in more active job searching. If a country wants to decrease outward migration, analysis of the pathways followed by migrating nurses would be very useful to determine what kinds of interventions could be developed and at what point in the pathway.

Job Alternatives

The unfolding model of turnover proposed by Morrell et al. (2008) also includes an assessment of job alternatives that are plentiful when there is a shortage of potential employees and high healthcare demand and not as plentiful when there are abundant potential employees and lower healthcare demand. However, knowledge of these alternatives and what organizations are seeking nurses as well as the process for obtaining another (or international) job by the nurse is equally critical. A nurse actively planning to migrate is well down the unfolding path because of the many active steps required as opposed to a nurse in his/her home environment who, especially under shortage conditions, could quit because of an unexpected "shock" and have a new job in a few days.

Withdrawal Behaviors

Withdrawal occurs if there is some level of interest in leaving the current job. Searching for a job may include beginning discussions with coworkers and friends or idle scanning of want ads. Someone searching for a job could then move on to or even start with very planned and specific activities, including calling about jobs, applying and submitting resumes, interviewing and other job-hunting activities. This level of activity begins to blend into "search." For example, many new graduates expect to work in a hospital for a year for experience but then want to move to a job with different attributes (perhaps a different specialty, closer to home, or a change in working conditions). As the self-imposed time line grows closer, the nurse may move along that continuum of withdrawal activities or conversely do nothing until actually quitting. Similarly, nurses migrating internationally have many complex steps to complete, so it must be more carefully thought out and intentionally pursued.

Withdrawal

Some employees who make a decision to leave an employer begin to disengage from the job and coworkers. This behavior can be exhibited in the form of lateness, absenteeism, or minimal work effort (discussed later). It is one kind of outcome of the intention to leave and not a cause of turnover.

Performance Quality

Minimal, sloppy or careless work effort can be the result of someone who has mentally already quit their job or is unsuited for the profession or it can be a symptom of any number of other issues, such as stress or substance abuse. The need for good references for the next employer may hold this kind of behavior in check. A U.S. employer may be glad to see unsatisfactory employees leave without firing them because the employer is not responsible to pay a higher rate for their unemployment insurance and potential legal issues and is not responsible for a negative reference. Poor performance quality often results in involuntary turnover, but this might be very hard to evaluate for international employers.

Job Search Gateways

One pathway included in Morrell et al.'s model (Lee et al., 2008; Morrell et al., 2008) includes the unanticipated job offer and other kinds of "shocks" that result in a sudden unplanned turnover. It is unclear if this kind of pathway is relevant in international migration because of the extensive planning required for visas, transportation, arranging jobs, and so on (Chikanda, 2005). For example, recruiting firms from developed countries often go to source countries to recruit nurses. However, it could be that the decision to leave is precipitated by a shock, but that practical planning occurs afterward. Chikandra (2005) suggests that nurses move from the public into the private sector to improve working conditions, to improve information sources about migration, and to save enough money to navigate the migration pathway.

Voluntary Turnover

Actual turnover occurs when the nurse leaves the employer and/or country. For the purposes of this discussion, our interest is in the nurse who then accepts a new position in a new country although for the employer anyone who leaves has "turned over" regardless of whether the employee has taken a new job. This is the conceptual endpoint of turnover models although it is an iterative process that begins again in the next job.

Outcomes

The cycle begins again at the next employer. Migration creates unique challenges for both the nurse and employer in assimilating to the new country in terms of culture, skills, and language. These factors may have a unique impact on international nurses that are not traditionally included in intent to leave and turnover models but certainly could be expected to impact the nurse's satisfaction and organizational commitment. The presence of international nurses may also have an impact on the satisfaction and organizational commitment of the existing staff. Lastly, there is an impact on the donor country, especially underdeveloped countries whose health care systems can be devastated if too many nurses leave.

Conclusions

This comparison of the turnover theory with the Kingma push-pull framework enriches the potential for the explanation of migration and vice versa and has a number of implications. For example, in the

turnover theory, a key predictor of turnover and intent to stay (or leave) is organizational commitment, but there does not seem to be a similar concept of commitment directed toward intent to stay in the home country. The development and measurement of this concept, if it exists, may be fruitful in understanding the processes that lead to nurse migration. It could also be used as a measure of the success of policy initiatives.

One problem in this work is to clarify the perspective of the analysis; is it at a societal and macro level (e.g., either country or organizational), or is it an individual nurse level (micro)? What kind of measurement and observations are needed? For example, unless working conditions in the source country can be improved, which in many countries must be accomplished at a societal level using more resources and a better workforce development policy, individual nurse perceptions of satisfaction and organizational and national commitment are unlikely to improve, and reversing immigration trends will remain difficult.

Measurements of concepts used in micro-level research (i.e., individual) research should be developed for migration research. Push and pull factors can be discussed at a macro level as (primarily) economic concepts, but to be useful and comparable to the turnover theory, we need to be able to measure migration concepts at the micro-level.

There has been limited study of migration and mobility within individual countries (Kovner, Corcoran, & Brewer, 2011), and the development of migration concepts and theory may help in explaining this kind of mobile turnover. Migration push and pull factors are also evident within countries across state lines (e.g., New York to Florida) and among various sectors (e.g., hospital jobs to ambulatory care jobs).

Several research and policy (Table 2) questions result from this analysis. What is the role of national policy in shaping the expectations of nurses educated in the source country? Is the expectation of migration so dominant in some countries that it shapes the decision to become a nurse in the first place? Can we measure migration intention, and if so, does it exist before a student starts school? Can a national commitment measure be developed comparable with organizational commitment? If it exists, where does it fit in the model? Researchers in countries that want to retain their nurses could study these concepts and what predictors reduce migration. In other countries, there is an oversupply of RNs for the available jobs, which does not that nurses are not needed but only that jobs are not available. This may be an imbalance in the resources used in educating vs. employing nurses in publicly funded health care systems. Policy in the donor countries may need to focus on what curricula and health care methods are needed for their own health needs and not those of colonial/developed countries (PHR, 2004).

Research questions that focus on variations in the strength and direction of the relationship of turnover

Table 2 – Examples of Policy Implications	
Turnover/Migration Issue	Policy Implication
Work environments	The goal of turnover research is to understand healthy work environments that will retain nurses. Policies that recognize and reward excellent organizational work environments might stabilize domestic workforces in exporting countries.
Macro-organizational context	Policy to manage the macro-health economy, migration expectations, and ease of migration factors impact RN turnover/migration.
Withdrawal behaviors	Increased search is correlated with intention to leave. Information systems about jobs in the home country and promoting a community of expatriate nurses on the internet with job opportunities in the home country may assist in bringing nurses home again.

concepts, such as embeddedness, by type of health care system, country, and intent to migrate would be useful. Another useful research agenda could examine turnover predictors across different countries and relate them to migration differences. Factors that impact migration have been enumerated and examined but have not been developed into a testable model. The turnover theory provides a framework for examining these factors and considering how they could relate to each other to predict migration. For example, how important is job satisfaction vs. embeddedness in countries with high rates of migration vs. low migration or policies of nurse exportation? Ultimately, a better understanding of the relationships and strengths of these factors could lead to a more effective policy. Just as the development of the turnover theory has led to the identification of organizational solutions, better development of the migration theory may lead to consensus on solutions to migration imbalances.

Integrating these theories helps us to understand that the perspectives needed are multilevel; turnover outcomes resulting from RNs' perceptions of a negative work environment combine with cultural and societal values and policies to create turnover on a global scale. Ultimately, reducing turnover helps to control costs and negative patient and workforce outcomes in

health care. Thus, research needs to consider models of both turnover and migration to determine solutions worldwide.

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