



Improving nurses' performance through remuneration: a literature review

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KEYWORDS

Remuneration;
Nurses' performance;
Quality care

Abstract

Background: A remuneration system greatly influences the quality of nursing care and services. **Objective:** The goal of this study was to identify the effects of a remuneration system on nurses' performance.

Design: This research used a literature review design and involved the analysis of 25 articles published in the Cumulative Index to Nursing and Allied Health Literature (CINAHL), MEDLINE, EMBASE, PsycINFO, and Global Health databases. The literature was limited to articles published in English between August 2006 and August 2015.

Results: The results of this study indicate that the improvement of remuneration systems has positive consequences in terms of nurses' performance and subsequent quality of healthcare services. A well-managed remuneration system has the potential to increase nurses' motivation, productivity, satisfaction, and even improve retention. In contrast, poorly managed and low remuneration contributes to a shortage of nurses due to high turnover rates.

Conclusions: Adequate remuneration has been shown to improve nurses' performance and, consequently, improve the quality of healthcare. This literature review provides scientific evidence for decision-makers to consider the implementation of remuneration systems that include credentialing, re-credentialing, and career ladders. Future studies are suggested to investigate the development of well-managed remuneration systems for nurses.

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Introduction

Hospitals involve a broad range of both healthcare and non-healthcare professionals. Nurses are an integral part of the healthcare professional team. They are demanded in the healthcare workforce markets¹ and play a key role in maintaining the quality of hospital services². Accordingly, sufficient competencies are pivotal for nurses to provide quality nursing care and services, thereby improving patient satisfaction.

Nurses' performance in delivering care and services gives rise to the level of patient satisfaction². A number of studies have indicated that nurses' performance is considered as one of the essential factors in determining the quality of health service. Exceptional nursing benefits healthcare by contributing to the highest quality of nursing care and improving patient outcomes³.

Within the last few decades, there have been numerous investigations into factors that affect nurses' performance.

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A study conducted in Iran indicated that marriage status, age, education levels, work units, working periods, organizational commitment, work satisfaction, nurses' attitudes in providing nursing care, quality of patient care, and remuneration influence nurses' performance⁴.

Additionally, a vast body of research demonstrates a significant relationship between nurses' performance and the remuneration system. In the studies in question, the amelioration of the remuneration system benefited the health-care organizations by reducing turnover rates and improving productivity and the quality of care^{5,6}. Also, it improved the nurses' motivation and satisfaction⁷. Furthermore, it attracted and retained new employees⁸.

We performed a literature review of 25 articles, aiming to identify the effects of the remuneration system on nursing performance. Specifically, this review sought to address the following objectives: *a*) to identify the benefits of adequate remuneration; *b*) to identify the disadvantages of inadequate remuneration; *c*) to identify the problems that may occur when remuneration is applied, and *d*) to examine nurses' performance in relation to the remuneration system in place.

Method

A series of literature reviews were conducted on 25 articles published in the Cumulative Index to Nursing and Allied Health Literature (CINAHL), MEDLINE, EMBASE, PsycINFO, and Global Health databases. The literature was limited to articles published in English between August 2006 and August 2015.

The search strategy used specific keywords in the databases to screen the words of "nurse remuneration" and "nurses' performance". The articles were restricted by study design. In addition, the investigators independently screened the titles, abstracts, and the full texts of the relevant articles. The data collected were relative to factors affecting nurses' performance, basic salaries, average of nurse's total remuneration, and impacts of the remuneration system.

Results

The findings of this study comprised the characteristics of the literature. These are presented in Table 1.

Sample characteristics

Since the search was limited to articles published in English, it was not surprising that the majority of the sample was drawn from the population in the United States (28%), United Kingdom (16%), and Australia (12%). Also, although our literature search included articles published from August 2006 to August 2015, over half of the articles (52%) had been published since 2011.

Methodological characteristics

Prospective design study accounted for nearly three quarters of the total literature (72%). The literature employed a

Table 1 Characteristics of literature (n = 25)

Category	n	%
<i>Sample country</i>		
United States of America	7	28
Canada	1	4
United Kingdom	4	16
Australia	3	12
Other European nations	1	4
Other	9	36
<i>Study design</i>		
Prospective	18	72
Retrospective	7	18
<i>Data collection method</i>		
Original questionnaire/survey	6	24
Existing questionnaire/survey	6	24
Interview	4	16
Literature review	9	36
<i>Theory</i>		
Discussed	5	20
Not discussed	20	80
<i>Publication date</i>		
2011-2016	13	52
2006-2010	12	48

wide range of data collection approaches, including literature reviews (36%), and previously original surveys and developed surveys (24%). Original and previously developed surveys were undertaken via papers, in-person interviews, or telephone.

In general, nurses' performance is annually evaluated using the performance appraisal form published by the Ministry of Health of each country. Approximately one quarter (24%) of the articles reviewed the framework of Maslow's theory of human motivation in relation to subsequent hierarchy of human needs. According to Maslow, there are five main categories of human needs: physiological, safety, love and belonging, esteem, social recognition, and self-actualization needs. Physiological needs are considered to be the most pressing.

The findings of the studies reviewed demonstrated various remuneration systems across the countries. Australia, New Zealand, and the United States, for instance, involve unions and employers in determining their remuneration systems. Meanwhile, the remuneration systems of Czech Republic, Finland, and Japan are mainly regulated by the government. Details of the remuneration system of each country are presented in Table 2.

Discussion

This bibliographic review has provided an extensive list of studies that focused on remuneration and nurses' performance. The studies revealed that, at the beginning, the remuneration system was poorly managed. Furthermore,

Table 2 The remuneration system across countries (n = 25)

Country	Current approach to nurses' pay determination
Australia	In the public sector, based on state-level bargaining between union and employer representatives
Czech Republic	National pay determination for government hospital nurses
Finland	Co-ordinated municipal-level pay determination within a national framework
New Zealand	Shifted from local/regional to national-level bargaining between unions and employers' representatives
Japan	Decentralized system; pay linked to assessment of nursing contribution
United Kingdom	National level independent pay review body makes recommendations on national pay rates for NHS nurses; takes evidence from national unions, government, and employers; some local flexibility within national framework
United States	Local (hospital level or equivalent) pay determination; some collective bargaining in hospitals which recognize trade unions (a minority), but mainly employer determined

there were scientific actions undertaken by nurses, including research, to gain better and appropriate remuneration. The remuneration system, accordingly, was in place.

A clear and well-managed remuneration system may substantially improve nurses' performance, thus improving healthcare quality⁹. In this review, the remuneration of nurses referred to the average gross annual income, including social security contributions and income taxes payable by the employee. It should normally include all extra formal payments such as bonuses and payments for night shifts and overtime. In most countries, the data related specifically to nurses working in the hospitals⁵.

Adequate remuneration increases nurses' motivation¹⁰. In various settings, a study showed that the motivation of nurses working in the ICU increased significantly after the improvement of the remuneration system¹¹. Similarly, bonuses within the remuneration system of nurses increased the satisfaction of nurses working in homecare, and even improved staff retention⁹. Based on this evidence, remuneration is one of the essential contributing factors to the enhancement of nurses' performance⁴. In addition, remuneration is a crucial demand with the potential to improve health strategy, with the aim of achieving the MDG's goals¹².

Conversely, a decline in remuneration has undesirable consequences. Nurses' motivation declines, and turnover rate tends to increase¹³. In Africa, diminished remuneration

led nurses to find alternative jobs in the private sectors or to seek work overseas¹². Some low and middle income countries with inadequate remuneration experienced emigration of nurses, or "brain drain", to the United States¹⁴. Likewise, low remuneration resulted in brain drain, and subsequent economic crisis, in Greece¹⁵.

Nurses' remuneration varied broadly across countries and regions. It was found to be inadequate in Ontario, Canada¹⁶ and the United Kingdom¹⁷. In the meantime, remuneration in Germany is determined by city income and homecare rate¹⁸.

Problems associated with existing remuneration systems were found in most countries. In the United Kingdom, remuneration is higher among newly recruited nurses than experienced ones¹⁹. The discrimination of remuneration is not based on the standardized scoring system of care and performance in the United States²⁰. Moreover, the remuneration is unclearly determined without consideration given to the nurses' educational background²¹.

Insufficient remuneration may have unexpected consequences on the nursing workforce. Our studies found that remuneration is low in the United States and the Philippines, and it is lowest in Romania¹³. This low remuneration, furthermore, has resulted in a serious shortage of nurses in the United States²² and the Philippines¹⁴.

Remuneration is an exigent issue in healthcare and greatly influences its quality. Thus, it is important to identify strategies aimed at improving existing remuneration systems. Credentialing and re-credentialing could be the key to addressing problems caused by poorly managed remuneration. Such acts offer constructive and equal remuneration for nurses compared to other health professionals²³. Furthermore, a career ladder would be helpful for administrators to discriminate remuneration²⁴ in accordance with nurses' performance²⁵.

For the purpose of some studies in this literature review, researchers developed their own instruments, while others employed previously validated instruments. Whilst the new instruments allowed researchers to tailor the question to their unique concerns, the validated instruments made ready for the comparison of sample and population with their validated values.

An extensive body of literature on nurses' remuneration and performance is available. From this body of literature, the authors summarized 25 studies to identify the effects of different remuneration systems on nurses' performance. Adequate remuneration has been shown to improve nurses' performance and, consequently, improve the quality of healthcare. This literature review provides scientific evidence for the need for decision-makers to consider the implementation of remuneration systems that include credentialing, re-credentialing, and career ladders. Future studies are suggested to investigate the development of well-managed remuneration systems for nurses.

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