

Innovation in Nursing: A Concept Analysis

Nurten Kaya^{1*}, Nuray Turan² and Gülsün Özdemir Aydın²

¹Health Sciences Faculty, Istanbul University, Turkey

²Florence Nightingale Faculty of Nursing, Istanbul University, Turkey

Abstract

The healthcare industry has experienced a proliferation of innovations for enhancing the life expectancy, quality of life, diagnostic, treatment and caring options, as well as the efficiency and cost effectiveness of the healthcare systems. Information technology has also played a vital role in the innovation of nursing care. The term in nursing innovation is widely used throughout nursing and allied health literature; however, the meaning of the term is not clear. This paper is a report of an analysis of the concept of innovation in nursing and provides a greater understanding of innovation and its use in the nursing profession.

Keywords: Innovation; Concept; Concept analysis; Nursing science; Nursing care

Introduction

Innovation is to a large extent considered a social and communicative process, and input from other individuals potentially improves the generation of novel and, valuable ideas also in the early stages of idea creation and development [1]. This term is not a new concept to in the nursing profession [2].

As the encouragement of nursing professionals to utilize their acquired knowledge and skills to creatively generate and develop new ways of working, drawing on technologies, systems, theories and associated partners/stakeholders to further enhance and, evaluate nursing practice.

The nursing care changes and challenges respect to a constant environment. Changes in demographics and the burden of disease continue to present new demands on the care system, placed as is on the front line of addressing the global challenges of disease and delivering on the Millennium Development Goals. It is imperative in order to improve patient safety and quality care; it does not and will not occur in isolation requiring investment, support and resource allocation from managers, leaders and governments [2,3].

Nursing innovation is a fundamental source of progress for health care systems around the world. Nurses work in all settings with all types of patients, families, communities, health care personnel and staff in other sectors. Nurses are supported in their efforts to provide innovative solutions to the challenges and demands of health care provision [2].

Innovation in nursing care continues to be a driving force seeking to balance cost containment and health care quality. It is considered to be a critical component of business productivity and competitive survival [4]. In addition, nursing theorists, scholars and health care professions have varying interpretations of what innovation is or should be.

Organizing Framework

The organizing framework used in this study was adapted from that developed by Wilson and modified by Walker and Avant to include 8 iterative procedural steps. This study's analysis included 8 stages that are described in (Table 1).

Concept Definition

Innovation has been studied in a variety of disciplines; the term is often poorly understood and can be confused sometimes with related

Stage	Action
1	Select a concept (interesting, revelent, important, useful)
2	Determine the aims or purpose of the analysis (to distinguish between ordinary and scientific usage of the same concept, to clarify meaning of an existing concept, to develop an operational definition, to develop on operational definition, to add to existing theory, etc.)
3	Identify all uses of concept (sources, all uses of the term, in all fields).
4	Determine (the definition attitudes)
5	Identify (a model case)
6	Identify (borderline cases, related cases, contrary cases, invented cases, illegitimate cases)
7	Identify (antecedents, consequences)
8	Define (empirical referents).

Table 1: Walker and Avant's concept analysis model.

terms such as change, invention, design, and creativity [5]. In the research literature, the definition of innovation includes the concepts of novelty, commercialization and/or implementation. In other words, if an idea has not been developed and transformed into a product, process or service, or it has not been commercialized, and then it would not be classified as an innovation [6].

The meaning of "innovation" is revealed by its Latin root, nova or new [7]. It is defined as "Making changes to something established by introducing something new."

Generally "innovation" is defined as a new method and/or practice device [3]. An innovation is an idea, practice or object that is perceived as new by an individual or other unit of adoption. It matters little, so far as human behavior is concerned, whether or not an idea is "objectively" new as measured by the lapse of time since its first use or discovery. The perceived newness of the idea for the individual determines his or her reaction to it. If the idea seems to the individual, it is an innovation [7].

Innovation can be defined as the intentional introduction and

***Corresponding author:** Nurten Kaya, Associate Professor, Health Sciences Faculty, Istanbul University, Turkey, Tel: 90 212 414 15 00 40139; Fax: 90 212 414 15 15; E-mail: nurka@istanbul.edu.tr

Received October 17, 2015; **Accepted** December 29, 2015; **Published** January 05, 2016

Citation: Kaya N, Turan N, Aydın GÖ (2016) Innovation in Nursing: A Concept Analysis. J Comm Pub Health Nursing 2: 108. doi:10.4172/2471-9846.1000108

Copyright: © 2016 Kaya N, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

application within a role, group, or organization, of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, or wider society. This definition is largely accepted among researchers in the field, as it captures the subtitles which are most important characteristics of innovation: (a) novelty, (b) an application component and (c) an intended benefit.

Afuah [8] refers to innovation as new knowledge incorporated in products, processes, and services. The innovations are classified according to technological, market, and administrative/organizational characteristics at the study of Afuah [8]. The technological innovation is the knowledge of components, linkages between components, methods, processes and techniques that go into a product or service. It may or may not require the administrative innovation. It can be a product, a process, or a service. The product or the service innovations should be new products or services aiming at satisfying some market needs. The process innovation is concerned with introducing new elements into an organization's operations such as input materials, task specifications, work and information flow mechanisms, and equipment used to produce a product or render a service [8]. Innovation involves branching out into new areas and, trying new things. Such as, the results of an innovation do not yield immediate, positive results. Instead, the path to improvement may involve a series of trials, and possibly a series of errors [2].

Innovation is a frequently used buzzword in healthcare [9]. According to the International Council of Nurses (ICN), innovation is the process of developing new approaches, technologies and ways of working [2]. The National Health Service (NHS) Institute for Innovation and Improvement [10] state innovation is about doing things differently or doing different things to achieve large gains in performance. It is a myth that most innovations come from laboratories, policy makers or senior leaders. Most innovations, whether in the public sector or the private sector, come from staff working within those organizations [10].

The need for innovative solutions has never been greater as health care environments struggle to provide equitable, safe and, effective health services, while at the same time containing costs [2].

The purpose of this concept analysis was to distinguish the use of the concept of high-stakes testing in nursing education from its use in other fields, such as public education. This process included examining the concept, how it is being used, and its similarities and differences to other related words or concepts. Such an examination can clarify the innovation for both nurses, and nursing students.

Literature Review

We included literature reviews, theoretical and empirical articles, books and grey literature obtained through database searching (The CINAHL, MEDLINE, PubMed, Ebsco Academic Search Primer, Web of Science, Google Scholar, and ERIC) from 2005-2015, references harvest and citation searching.

Uses of the Concept

Everyone is suddenly talking about the innovation term [11]. Innovation has been and continues to be an important topic of study for a number of different disciplines, including economics, business, engineering, science, and sociology [5].

Innovation is the process of developing new approaches, technologies and ways of working [2]. As such, it can be radical or incremental, and it can be applied to products, processes, or services and in any organization. It can happen at all levels in an organization,

from management teams to departments and even to the level of the individual [5].

Innovation is to analyze the opportunities or sources. Innovation starts with a good idea, but it is much more than that. Successful innovation aim at being the best from the very beginning. Effective innovation starts small. It also refers to the process of turning that good idea into something that can be used, something that is implementable and achievable, and hopefully. It also aims to do one specific thing. It is both conceptual and perceptual. Innovation is the application of creativity or problem solving that results in a widely adopted strategy, product, or service that meets a need in a new and different way. Innovations are about improvement in quality, cost-effectiveness, or efficiency. It will bring about better health promotion, disease prevention and better patient care [2,12]

Innovations may be technical, involving the development of a new or improved product or process, or administrative, which involves organizational structures and administrative processes [8]. Each may exist without the other. Conversely, each may depend on or require a corresponding innovation in the other domain in order to support or enable the innovations implementation [2].

For a profession with a storied tradition as developers of novel ways to advance health and meet ever-evolving human needs, nurse innovators will be more crucial now than ever as the world enters a new era of healthcare challenges [1,2].

Accordingly, International Council of Nurses (ICN) and European Union (EU) acclaimed 2009 as the 'Year of Innovation' with the aim of introducing it as the ultimate goal in the increase of international competitive capacity and broadening the horizons of the scientific institutions [2].

Characteristics of Innovation and Nursing

The characteristics of an innovation, as perceived by the members of a social system, determine its rate of adoption. Five characteristics of innovations are: relative advantage, compatibility, complexity, trial ability and observability.

- **Relative advantage:** The degree of relative advantage can be measured economically, but social-prestige factors, convenience and satisfaction are also often important components. It does not matter so much whether an innovation has many "objective" advantages. The greater the perceived relative advantage of an innovation, the more rapid its rate of adoption is going to be (Arslan 2015; Rogers, 2003; Sarıoğlu 2014).
- **Compatibility:** This refers to the degree of compatibility between the innovation and existing values, habits, past experience and needs of the participant. Compatibility is the degree to which an innovation is perceived as being consistent with the existing values, past experiences and needs of potential adopters. An idea that is not compatible with the prevalent values and norms of a social system will not be adopted as rapidly as an innovation which is compatible. The adoption of an incompatible innovation often requires the prior adoption of a new value system [7,13,14].
- **Complexity:** This describes the amount of difficulty that participants have in understanding and subsequently using the innovation. Some innovations are readily understood by most members of a social system; others are more complicated and will be adopted more slowly. In general, new ideas that

are simpler to understand will be adopted more rapidly than the innovations that require adopter to develop new skills and understandings [7, 13,14].

- **Trialability:** Trialability is the degree to which an innovation may be experimented by on a limited basis. New ideas that can be tried on the installment plan will generally be adopted more quickly than innovations which are not divisible. An innovation that is trialable represents less uncertainty to the individual who considers it for adoption, as it is possible to learn by performing [7,13,14].
- **Observability:** This refers to how visible the innovation is to participants and onlookers. It is the degree to which the results of an innovation are visible to others. The easier it is for individuals to see the results of an innovation, the more likely they are to adopt. Such visibility stimulates peer discussion of a new idea, as friends and neighbors of an adopter ask him or her for innovation-evaluation information about it [7,13,14].

In general, innovations which are perceived by receivers as having greater relative advantage, compatibility, trial ability, observability and less complexity will be adopted more rapidly than other innovations. These are not the only qualities that affect adoption rates, but past research indicated that they were the most important characteristics of innovations in explaining rate of adoption [7].

Innovation is central to maintaining and improving quality of care. And nurses innovate to find new information and better ways of promoting health, preventing disease and better ways of care and cure [2]. One of the earliest examples of innovations is Nightingale's landmark study of maternal morbidity from puerperal fever following childbirth. She observed the high number of deaths in maternity wards. Her study proved that the death rate was higher for women who gave birth in hospitals; her innovation resulted in changes to the services that resulted in the saving of women's lives [2,12,15,16].

Innovations often arise out of necessity in order to address a need or a gap in service or technology. For example, nurses know that caring for preterm infants in incubators is expensive, and unsafe. Incubators are not readily available in a number of countries. Kangaroo care was developed in Colombia by an American nurse as an easy, economical, safe and socially acceptable alternative. It involves placing healthy, preterm infant's skintoskin between their mothers' breasts. Its application in Zimbabwe showed Kangaroo care reduces neonatal mortality in developing countries. This new idea developed by nurses in one country, eventually benefited babies on the other side of the world. Similarly, in South Africa, nurses use their mobile phones to support people living with HIV/AIDS and to develop adherence to antiretroviral therapy (ARVs). In Iceland provided telephone based nursing intervention and reduced fatigue and distress for mothers who received up to five telephone calls over two months from a skilled nurse counselor. These examples demonstrate how innovation provides a way to meet local challenges and deliver on important health priorities [2,12].

The need for its solutions has never been greater as health care environments struggle to provide equitable, safe effective health services while, at the same time, containing costs. New nursing roles, in which nurses develop new approaches to care to take on roles formerly the domain of other health professionals, have proliferated and have been cited as numbering at least [2,8].

Related Concepts

Innovation is often used along with the terms such as creativity,

design, invention and exploitation. It is also closely associated with terms such as growth and change.

Innovation and invention: Invention is defined as creating something new that has never existed before. Innovation differs from invention in that it is more than the creation of something novel.

Innovation and growth: Innovation is about developing growth. Innovation can be viewed as a purposeful and focused effort to achieve change in economic or social potential. Innovation is essential for helping grow.

Innovation and creativity: Creativity is regarded as a key building block for innovation and is an inherent capability in all human beings.

Innovation and design: The term design in the context of innovation is defined as "the conscious decision-making process by which information is transformed into an outcome be it tangible or intangible". Design is an integral part of the exploitation phase of an innovation.

Innovation and exploitation: Innovation can be viewed as a systematic approach to create an environment based on creative discovery, invention and commercial exploitation of ideas that meet unmet needs.

Innovation and change: Although innovation as resulting in change, it is incorrect to equate innovation with all forms of change. Change can have a positive or negative impact. Not all changes can be viewed as innovation.

Innovation and failure: Growth is often measured in terms of extent of business and profit. The innovation process will naturally involve unsuccessful ideas. These are seen as a natural byproduct of the innovation process. In order for some ideas to succeed, many more of them must fail.

Innovation and entrepreneurship: The terms entrepreneurship and innovation are often used interchangeably, but this is misleading. Innovation is often the basis on which an entrepreneurial business is built because of the competitive advantage it provides.

Innovation and customers: The better the innovation fulfills customer needs, the more likely customers are to adopt it.

Innovation and knowledge: Innovation is built on a foundation of creativity and sometimes on invention, resulting in the creation of new knowledge and learning within the organization.

Innovation and society: Innovation is a characteristics that is beneficial to a large society such as a nation or region [1,5].

Conclusion

The challenges of emerging technologies, balancing the cost and quality of care, and a raging nursing shortage necessitate a deeper consideration of the nature of innovation and how it operates, how innovators think and view problems, if and how innovation can be taught.

Nurses are uniquely positioned to identify risk factors, provide information about how to manage these risks, and promote the benefits of healthier lifestyles, diets and avoid risky behaviors. Through their professional conduct and relationships with colleagues, nurses can play a role in creating a working environment which is receptive and ready for positive changes to practice. Many of these initiatives have resulted in significant improvements in the health of patients, populations and

health systems. To use a common terminology, it is needed to determine the concept of innovation, and nursing education programs and health professionals should pay strict attention to correct use of that concept.

However, nursing's contribution to health care innovation is seldom recognized, publicized or shared amongst nursing and the wider public. Advances in imaging and communication technologies have also resulted in new models for the delivery of education, particularly in relation to ongoing professional development [15,16].

References

1. Bergendahl M, Magnusson M (2015) Creating ideas for innovation: effects of organizational distance on knowledge creation processes. *Creativity and Innovation Management* 24: 87-101.
2. ICN (2009) Delivering quality, serving communities: nurses leading care innovations.
3. Mcsherry R, Douglas M (2011) Innovation in nursing practice: a means to tackling the global challenges facing nurses, midwives and nurse leaders and managers in the future. *Journal of Nursing Management* 19: 165-169.
4. Omachonu VK, Einspruch NG (2010) Innovation in healthcare delivery systems: a conceptual framework. *The Innovation Journal: The Public Sector Innovation Journal* 15: 1-20.
5. Sullivan O (2008) Definiton innovation.
6. Popadiuk S, Choo CW (2006) Innovation and knowledge creation: how are these concepts related? *International Journal of Information Management* 26: 302-312.
7. Rogers EM (2003) *Diffusion of innovations*. (4thedn), Simon & Schuster Press, New York.
8. Afuah A (1998) *Innovation management: strategies, implementation, and profits*. Oxford University Press, New York.
9. Weberg D (2009) Innovation in healthcare. *Nursing Administration Quarterly* 33: 227-237.
10. NHS (2011) Institute for innovation and improvement; innovation making it happen.
11. Xerri M, Brunetto Y, Shacklock K (2009) The innovative behaviour of employees within a small to medium sized enterprise: a social capital perspective. 23rd ANZAM Conference, Sustainability Management and Marketing, Melbourne
12. Lanchman VD, Smith ME, Donnelly GF (2006) Teaching Innovation. *Nurs Admin Q* 33: 205-211.
13. Arslan ET (2012) İnovasyon ile iç girişimcilik etkileşimi: bilişim 500 şirketlerinde bir araştırma, Sosyal Bilimler Enstitüsü, İşletme Anabilim Dalı, Doktora Tezi, Süleyman Demirel Üniversitesi, Isparta.
14. Sarıoğlu A (2014) Bireysel Yenilikçilik Ölçeğinin hemşirelikte geçerlik ve güvenirliği. Atatürk Üniversitesi Sağlık Bilimleri Enstitüsü Hemşirelikte Yönetim Anabilim Dalı Yüksek Lisans Tezi. Erzurum.
15. Kaya N, Turan N, Aydın GÖ (2015) A concept analysis of innovation in nursing. *Procedia - Social and Behavioral Sciences* 195: 1674-1678.
16. Fleiszer AR, Semenic SE, Ritchie JA, Richer MC, Denis JL (2015). The sustainability of healthcare innovations: a concept analysis. *J Adv Nurs* 71:1484-98.

Citation: Kaya N, Turan N, Aydın GÖ (2016) Innovation in Nursing: A Concept Analysis. J Comm Pub Health Nursing 2: 108. doi:10.4172/2471-9846.1000108

OMICS International: Publication Benefits & Features

Unique features:

- Increased global visibility of articles through worldwide distribution and indexing
- Showcasing recent research output in a timely and updated manner
- Special issues on the current trends of scientific research

Special features:

- 700 Open Access Journals
- 50,000 editorial team
- Rapid review process
- Quality and quick editorial, review and publication processing
- Indexing at PubMed (partial), Scopus, EBSCO, Index Copernicus and Google Scholar etc
- Sharing Option: Social Networking Enabled
- Authors, Reviewers and Editors rewarded with online Scientific Credits
- Better discount for your subsequent articles

Submit your manuscript at: <http://www.omicsgroup.org/journals/submission>