Afdet

NURSES and PATIENT EDUCATION

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Abstract

The purpose of this article is to explore nurses' roles in patient education, using a review of the literature. Nurses are engaged in both formal and informal patient education integrated into care. An empowering, patient-centric approach helps patients to self-manage their condition and can improve adherence to treatment. Nurses need training and support in providing this type of approach.

Introduction

The chronic disease epidemic

Chronic, noncommunicable diseases (NCDs) have become the main cause of death worldwide. These diseases include type 2 diabetes, cardiovascular diseases, cancers and chronic lung diseases, such as asthma and chronic obstructive pulmonary disease (COPD) (WHO, 2011).

The causes are largely behavioural within the context of environmental changes such as urbanisation and economic transition. This worldwide shift has led to massive modifications in lifestyle: insufficient physical activity, unhealthy diet, tobacco use and harmful alcohol consumption (WHO, 2011). Another factor is an ageing world population.

Their management places considerable burden on countries, as most of the healthcare budget gets used in combatting the causes and effects of these diseases. The burden is also related to productivity losses. Cost-of-illness studies place current costs of NCDs somewhere between hundreds of billions of US$ and trillions of US$. These costs are set to grow as populations increase and get older over the next 20 years. Economic output is substantially affected. As NCDs are mainly chronic conditions, work attendance is affected due to care-seeking and disability (BLOOM *et al.* 2011). Not all chronic disease is noncommunicable. Examples are HIV infection and hepatitis C.

How does the epidemic affect evolving healthcare models?

Emergence of the chronic care model

The challenges faced at a worldwide level impose the need for a paradigm change in our approach to healthcare. At a policy level these changes are political, economic and environmental. At a healthcare implementation level, caring for people with chronic disease is leading to changes in providers, settings and qualifications (BUSSE *et al.* 2010). The acute-care model is based on direct care and supervision by the healthcare provider. In chronic disease, with the patient needing daily care and medication, the main change is a shift towards self-management of the condition, with guidance by a primary healthcare provider. One of the pillars of self-management is patient education, which aims at empowering the patient and equipping him with the knowledge and skills to manage their life with a chronic disease. In chronic diseases such as diabetes, developing effective and efficient strategies to promote self-management is important in order to prevent serious complications (CHEN *et al.* 2010).

Patient education can remain limited to providing information and learning technical skills. It can be aimed specifically at adherence to the prescribed regimen, or can focus on behaviour change. However, self-management goes beyond simply adhering to the prescribed treatment or changing long-formed habits. Patients need to make day-to day decisions about their live (BODENHEIMER *et al.* 2002). Patient education that is aimed at self-management is part of the paradigm change brought about with the surge in chronic conditions, as the provider moves from a paternalistic-style relationship to a partnership with the patient.

This shift towards partnership is relevant for all healthcare professionals, including nurses.
Nursing involves interaction with people at key moments in their health experiences, such as change of medication or admission to and discharge from hospital. This interaction places nurses as key actors in helping patients develop self-management skills.

The aim of this review of the literature is to explore nurses' roles in patient education, to clarify how education is integrated into practice and to see how patient education interventions by nurses influence outcomes in terms of patient empowerment, adherence and care gaps.

Method

Search

A first search using the keywords: *Nurses - patient education- health literacy- patient adherence- patient empowerment-chronic disease,* carried out in March 2013, brought up 285 references.

In order to retrieve a more manageable number of references, a second search was made in June 2013, using Embase and Medline. Articles published between January 1st 2008 to June 13th 2013 were searched using the terms: *patient education – patient attitude (compliance, adherence)* – as descriptors or in free text AND *Nurse role – Nurse patient relationship* - as descriptor or in free text AND *In chronic disease* - as descriptor or in free text.
113 citations were retrieved.

The abstract for each article was read. Selection was based on the criteria of Nurses Practicing Patient Education, in a Chronic Disease Setting

Exclusion criteria were:
-General nursing interventions, not specific to education
-Organisation and management of care as opposed to care and education delivery
-Training of professionals not specific to patient-education
-Interventions by non-nurses (except for multidisciplinary approaches)
-Effects of tools outside of nurse patient education considerations
-Education in an acute setting as opposed to chronic disease management
-No abstract

Secondary exclusion criteria:
-Lack of information.
After a preliminary selection of articles, those marked for possible inclusion, but lacking information were not retained.

20 articles were selected.

Tertiary exclusion criteria
10 articles were analysed as it was not possible to obtain the full text of the other 10 articles.

The following articles were selected.

- FRIBERG F., GRANUM V., Bergh A.L. Nurses' patient-education work: Conditional factors - an integrative review*. J Nurs Manage*, (2012) 20 (2), 170-86.
- HENRIQUES M.A., COSTA M.A., CABRITA J. Adherence and medication management by the elderly. *J Clin Nurs*, (2012) 21 (21-22), 3096-105.
- KOIVUNEN M., HUHTASALO J., MAKKONEN P., VALIMAKI M., HATONEN H. Nurses' roles in systematic patient education sessions in psychiatric nursing. *J Psychiatr Ment Health Nurs*, (2012) 19 (6), 546-54.
- MAHOMED R., St JOHN W., PATTERSON E. Understanding the process of patient satisfaction with nurse-led chronic disease management in general practice*. J Adv Nurs*, (2012) 68 (11), 2538-49.
- WOOD L. A review on adherence management in patients on oral cancer therapies. *Eur J Oncol Nurs*, (2012) 16 (4), 432-8.
- DE LA TORRE ABOKI J. Contribution of nurse-led clinics in the management of the patient with rheumatoid arthritis. Reumatol Clin, (2011) 6 (SUPPL. 3), S16-S19.
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Analysis and findings

Different methods were employed by the authors (Table 1):

- Review of the literature (3)
- Focus groups (1)
- Qualitative design and interviews (1)
- Grounded theory study (1)
- Prospective multicentric randomised study (1)
- Study design for a randomised controlled trial (RCT)(1)
- Descriptive (1)
- Dialogue analysis using Roter Interaction Analysis System (RIAS) (1),

Findings came from different countries (table 1). The only continent not represented in the selection is South America. The three articles that used the literature review method covered a total of 151 articles from worldwide sources. The studies included in these reviews were quantitative, qualitative or both.

Table 1

Author, Date	Method	Country
Friberg F, Granum V, Bergh AL. 2012	Literature review: 32 articles	Turkey, La Réunion France; US; Ireland; Australia; Sweden; Canada; Finland; Hong Kong; China; UK; France; Iceland
Henriques MA, Costa MA, Cabrita J. 2012	Focus groups	Portugal
Koivunen M, Huhtasalo J, Makkonen P, Valimaki M, Hatonen H. 2012	Qualitative design. Interviews.	Finland
Mahomed R, St John W, Patterson E. 2012	Grounded theory study	Australia
Wood L. 2012	Literature review: 73 articles	USA
De la Torre Aboki J. 2011	Descriptive	Spain
Koutsopoulou S, Papathanassoglou ED, Katapodi MC, Patiraki EI. 2010	Literature review: 46 articles	Iceland, Canada, Greece, US, Denmark, China, Thailand, France, Finland, UK, Ireland, Australia, Sweden, Germany,
Larrey D, Salse A, Castelli C, Bozonnat MC, Pageaux GP, Ribard D, *et al.* 2010	Prospective multicentric randomised study	France
Stuckey H.L., Dellasega C., Graber N.J., Mauger D.T., Lendel I., Gabbay R.A. 2009	Study design for RCT	USA
Lamiani G, Furey A. 2009	Dialogue analysis using Roter Interaction Analysis System (RIAS)	USA

The data was reviewed using the following themes and questions:

- <u>The Nurses</u>

Who are they?
What is their level of practice? Specialty. Education? Gaps in skills and knowledge?
Where do they practice? (structure, country)
What field?

- The patients

Who are they? What population?
What chronic disease do they have?
What are the problems they are facing?

- The interventions

What type of intervention?
The objectives
What tools?

- The theoretical patient education framework
- Goals and objectives
- Outcomes
- Educational Strategy

The Nurses

The nurses cited in the articles practice at three different levels. First of all, there is the registered nurse (RN). The RN has either undergone three years of education to diploma level or is in possession of a bachelor's degree, which takes three or four years according to the country. However, at a worldwide level, there are still variations in the number of years' study required for entry to the register (WHO 2008).

Some studies include another level of nurses: Nurse Practitioners and Advanced Practice Nurses. The International Council of Nurses (ICN) gives the following definition: *A Nurse Practitioner/Advanced Practice Nurse is a registered nurse who has acquired the expert knowledge base, complex decision-making skills and clinical competencies for expanded practice, the characteristics of which are shaped by the context and/or country in which s/he is credentialed to practice. A master's degree is recommended for entry level* (ICN 2009).

One article (KOIVUNEN *et al*. 2012) also cites assistant nurses. This level of nursing exists in some countries as Licensed Practical Nurse, and in others as Enrolled Nurse. They benefit from one to two years' professional education. They work under the supervision of RNs.

Not all articles differentiate between RNs and Advanced Practitioners. Nurses were also described according to their specialty (which may or may not have involved postgraduate education) and according to their function, such as case managers, practice nurses…

Types of specialty practice cited are: rehabilitation, surgical nursing, oncology nursing, diabetes expert, public health, mental health, psychiatric nurse.

The nurses practice in a variety of settings:

- Primary care settings includes health centres, public health and practice-nurse led care
- Secondary and Tertiary care settings include in-patient care in mental health facilities, surgical units, rehabilitation centres and outpatient care for patients undergoing cancer treatment.

Within these articles, who are the patients receiving education from nurses?

The Patients

The patients educated by nurses belong to different populations. The population criteria vary from age, to type of disease, to where living or if hospitalised (table 2).

The patients suffer from chronic diseases: either NCDs such as Type 2 diabetes and/or ischaemic heart disease and/or hypertension, or infectious diseases such as chronic hepatitis, or mental illness such as schizophrenia. Some articles reviewed defined the patients' health problems as complex.

Table 2: The patients

Author, Date	**Population**	**environment, context**
Friberg *et al.*	More elderly; complex health problems	shorter hospital stays
Henriques *et al.*	65 years and over; elderly; living at home	living at home; taking 4 or more chronic medications;
Koivunen *et al.*	hospitalised patients with psychotic disorders	psychiatric inpatient care
Mahomed *et al.*	Over 18 years; able to speak and read English; attending the practice for at least 12 months; age range from 50 to 80 years;	Patients attending one of three Australian general practices for at least 12 months, within a practice nurse-led collaborative care chronic disease management model
Wood	Patients undergoing oral cancer chemotherapy	cancer oral chemotherapy
De la Torre Aboki	Patients with rheumatoid arthritis	Patients attending a nurse-led rheumatoid arthritis clinic
Koutsopoulou *et al.*	Patients with cancer with various problems and issues	Various settings
Larrey *et al.*	Patients with chronic hepatitis treated by Peg-Interferon-alpha2a-Ribavirin	
Stuckey *et al*	Underserved Hispanic population with Type 2 diabetes	care-gaps
Lamiani, Furey	Patients attending hospital	hospital-based care

The patients face a variety of problems both directly related to their illness and psychosocial and economic difficulties.

Point of contact

Where is the point of contact between the patients and the nurses?

One article deals specifically with patients with schizophrenia spectrum psychosis treated as hospital inpatients. But the majority of patients are treated in a primary care or outpatient setting.

This reflects the shift in place of care worldwide, as the chronic care model becomes the dominant one. Hospital stays are shorter (FRIBERG *et al.* 2012), treatments previously proposed only in an inpatient setting are now proposed to outpatients and increasingly in nurse-led facilities (DE LA TORRE ABOKI 2011, HENRIQUES *et al.* 2012, MAHOMED *et al.* 2012, STUCKEY *et al.* 2009).

The educational interventions

Educational interventions by nurses are both formal and informal (FRIBERG *et al*. 2012). Studies (GREGOR 2001, NOLAN *et al*. 2001 *in* FRIBERG *et al*. 2012) reveal that nurses regard patient education as a significant part of everyday practice.

The informal educational activities described in the articles (FRIBERG *et al.* 2012, MOHOMED *et al.* 2012, KOUTSOPOULOU *et al.* 2010) are information-provision, lifestyle advice and support, in addition to routine monitoring, provision of information and assisting individuals to access information. These informal activities are also described as integrated into care and daily clinical activity.

Formal educational activities include determining care needs, systematic patient education using computers and leaflets, individually-tailored teaching methods based on patient preferences, such as computer-assisted instruction, the teaching of skills (e.g. glucose monitoring, insulin administration) with an emphasis on focusing on the patients' own life priorities and internal motivations, motivational interviewing and psychosocial interventions engaging people in self-management of medication (HENRIQUES *et al.* 2012, KOIVUNEN *et al.* 2011, MOHOMED *et al.* 2012, STUCKEY *et al.* 2009, WOOD 2012).

The theoretical patient education framework (table 3)

The overarching principles that emerge from the description of the educational interventions are:

- The shift to a Chronic Disease Model, very different from the acute-illness model
- Patient-centricity
- The development of Trust and a Privileged Relationship

These three principles are combined in the different educational approaches taken by nurses to empower the patients and enable them to develop self-management skills that are relevant to their lives.

For example, nursing consultations aimed at assisting elderly patients with self-management of their condition and promoting medication adherence are described as a “place that allows a privileged relationship” (HENRIQUES *et al.* 2012).
The team designing the DYMNAMIC RCT considers the motivational interviewing (MI) technique consistent with a patient-centric approach. MI requires “reflective listening; therapeutic communication and rapport-building skills to empower the patient” STUCKEY *et al.* 2009).

Table 3

Author	Theoretical patient-education frameworks
Friberg *et al.*	Patient-centredness. Partnership. Trusting relationship. Advocacy. Empowerment. Shared decision-making. Patient in active, health promotive and self-managing role. Educational theory. Adult learning theory. Lifeworld phenomenological basis for learning. Hermeneutic-phenomenological basis for learning. Role theory. Institutional ethnography. Compliance and adherence. Trajectory model. Personal construct theory. Transtheoretical model.
Henriques *et al.*	Complex factors influencing non-adherence to chronic medication.
Koivunen *et al.*	Use of information technology (IT). Systematic patient education. Empowerment.
Mahomed *et al.*	Nurse-led chronic disease management. Grounded theory was used to develop a theory: Navigating Care: Patients undergo a cyclical process of Navigating Care involving three stages: Determining Care Needs, Forming Relationship, Having Confidence.
Wood	A move towards the chronic disease model for cancer. Shift in the treatment paradigm including the expansion in the use of long-term oral maintenance therapies to extend the duration of the response to first-line treatment. Challenges and responsibilities for healthcare professionals in patient adherence management.
De la Torre Aboki	Patient education and empowerment as tools to promote patient independence
Koutsopoulou *et al*	Nurses as source of information
Larrey *et al.*	Nurse-provided therapeutic education
Stuckey *et al.*	Nurse case-management. Motivational interviewing. Individual patient-centred care plan. Empowerment. Education. Psychosocial understanding. Collaboration. Autonomy. Support. Chronic care model.
Lamiani, Furey	Patient-centred model. Interactive learning methods. Nurses' preparedness to provide patient education. The patient's illness experience. The patient education process. Individualised patient teaching. Patient-centred communication skills.

The goals and objectives of patient education outlined in the selection of articles

The shift in the care paradigm towards partnership with the patient and shared decision-making means that patients are expected to take an active, health-promotive and self-managing role (WHITEHEAD 2008).

Two categories of goals appear in the articles:

- Self-management and lifestyle goals
- Adherence and clinical goals

The experiences outlined in the articles show that a patient-centric approach needs to be adopted and that lifestyle and self-care issues must be addressed in order to promote adherence. "Adherence to medications is affected by factors internal to the individual and therefore regarded as a coping strategy, as an adaptive response to chronic illness" (MARDBY *et al*. 2007, BANNING 2008, IIHARA *et al.* 2008 *in* HENRIQUES *et al.* 2012).

Outcomes

Not all articles evaluate the outcomes of patient education in terms of patient outcomes, the search having brought up different approaches to the subject, including the role of nurses, strategies used during education and evaluation of workshops aimed at educating nurses in patient education (table 4).

Table 4

Authors	**Focus of article**
Friberg *et al.*	Nurses' patient-education work
Henriques *et al.*	Education of elderly patients with chronic conditions
Koivunen *et al*.	Nurses' role in patient education
Mahomed *et al.*	Nurses in chronic disease management in primary care
Wood	Nurses' patient-education work
De la Torre Aboki	Effectiveness of nurse-led clinics
Koutsopoulou *et al.*	Information provision by oncology nurses
Larrey *et al.*	Impact of nurse-provided therapeutic education on quality of life (QoL)
Stuckey *et al.*	Primary care model of nurse case management and motivational interviewing
Lamiani, Furey	Evaluates effects of training on nurses providing patient education

Patient outcomes

Patient outcomes listed include: improved adherence, sustained virological response, collaboration and involvement of the patients, patient satisfaction (HENRIQUES *et al.* 2012, KOIVUNEN *et al* 2011, MOHOMED *et al.* 2012, DE LA TORRE ABOKI 2011, KOUTSOPOULOU *et al* 2010, LARREY *et al*. 2010).

Educational Strategy

Apart from patient outcomes, the findings for educational strategy outlined in the review of the articles are:

- A patient-centric approach is necessary to develop self-management. This type of approach is compatible with systematic patient interventions. (KOIVUNEN *et al.* 2011, WOOD 2012).
- A patient-centric approach requires interpersonal skills, nurse-patient interaction, time to build up trust and rapport (HENRIQUES *et al.* 2012, 3101, KOUTSOPOULOU *et al.* 2010, MOHOMED *et al.* 2012).
- Nurses are competent to work collaboratively with patients, including when using IT solutions (KOIVUNEN *et al*. 2011).
- Effective communication can lead to improved adherence (HENRIQUES *et al.* 2012, WOOD 2012).
- Patients' learning needs need to be identified using a patient-centric approach before implementing educational strategies (FRIBERG *et al.* 2012).
- A balance is needed between adherence or clinical goals and quality of life goals (LARREY *et al*. 2010).
- Patient may prefer nurses as information providers at specific times in their treatment (KOUTSOPOULOU *et al.* 2010).
- Registered nurses are effective in providing information and education. Specialised nurses and advanced practitioners are particularly effective (KOUTSOPOULOU *et al. 2010,* DE LA TORRE ABOKI 2010).
- Nurses need relevant staffing and administrative support to carry out informal and formal patient education (FRIBERG *et al.* 2012, KOIVUNEN *et al.* 2011).
- Nurse should be provided with more educational opportunities based on a patient-centred approach and evidence-based education to improve their patient-education skills (FRIBERG *et al.* 2012, LAMIANI, FUREY 2009).

Discussion

The paradigm shift brought about through the changing nature of disease and the chronic disease epidemic is driving changes in nursing practice including patient education, with the accent on patient centricity, patient as partner, shared decision-making (COULTER, COLLINS 2011), autonomy and self-management. We are seeing incorporation of evidence-based education into care using a patient-centric approach. Both nurses and management face challenges to implement the changes needed to support this approach. The economic models of healthcare need to take this into consideration with the creation of new modes of cooperation and the integration of the different levels of nursing practice into new organisational structures.
Education of nurses both at undergraduate and postgraduate levels needs to continue evolving. Interpersonal skills and educational competencies need to be part of core skills and recognised as an essential part of nurses' clinical practice. More and more, these competencies are integrated into nurse education programs[1], but the challenge is how to get education delivered effectively. Both nursing and general management need to support organisation of care that allows nurses to render patient education visible, available to patients and truly empowering.

Conclusion

Patient education has become an integral part of care. It is coming to maturity as understanding of the learning process and the chronic care model reach nurses engaged in patient care. The emphasis on content-based learning is being replaced by relationship-based education, as a patient-centric and empowering approach is showing effects on patient self-management.

However, nurses need support from management to provide patient-centred education using an interprofessional approach.

Nurses also need empowerment through continuous professional development. This development includes training in delivering patient education and working with the chronic disease model. It also includes education leading to higher levels of nursing practise.

The challenge is clearly on how to help patients take care of themselves with coordinated support from professionals, particularly nurses, who comprise largest body of healthcare professionals worldwide.

[1] Patient education is a core competency for French Nurses since 2009.

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Keywords
Adherence, Advanced nursing practice, Chronic care model, Chronic disease, Empowerment, Nurse, Nursing, Patient centricity, Patient education, Patient partner.