

## Four perspectives on self-management support by nurses for people with chronic conditions: A Q-methodological study



Susanne M. van Hoof<sup>a,b,\*</sup>, Jolanda Dwarswaard<sup>a,b</sup>, Susan Jedeloo<sup>a</sup>, Roland Bal<sup>b</sup>, AnneLoes van Staa<sup>a,b</sup>

<sup>a</sup> Centre of Expertise Innovations in Care, Rotterdam University, Rotterdam, The Netherlands

<sup>b</sup> Department of Health Policy & Management, Erasmus University Rotterdam, Rotterdam, The Netherlands

### ARTICLE INFO

#### Article history:

Received 13 November 2013

Received in revised form 4 July 2014

Accepted 10 July 2014

#### Keywords:

Chronic disease

Nurse's role

Nursing

Self-care

Self-management support

Q-methodology

### ABSTRACT

**Background:** Self-management support is a major task of nurses in chronic care. Several conceptualizations on what self-management support encompasses are described in the literature. However, nurses' attitudes and perceptions related to self-management support are not known.

**Objective:** To reveal distinctive perspectives of nurses toward self-management support in chronic care.

**Design and methods:** A Q-methodological study was conducted in which nurses ranked 37 statements on self-management support. Thereafter they motivated their ranking in semi-structured interviews.

**Participants and setting:** A purposive sample of 49 Dutch nurses with a variety of educational levels, age, and from different healthcare settings was invited by e-mail to participate in the study. Thirty-nine nurses (aged 21–54 years) eventually participated. The nurses worked in the following settings: hospital ( $n = 11$ , 28%), home-care ( $n = 14$ , 36%), mental health care ( $n = 7$ , 17%), elderly care ( $n = 6$ , 15%) and general practice ( $n = 1$ , 3%).

**Results:** Four distinct perspectives on the goals for self-management support were identified: the Coach, the Clinician, the Gatekeeper and the Educator perspective. The Coach nurse focuses on the patient's daily life activities, whereas the nurses of the Clinician type aim to achieve adherence to treatment. The goal of self-management support from the Gatekeeper perspective is to reduce health care costs. Finally, the Educator nurse focuses on instructing patients in managing the illness.

**Conclusions:** The changing role of chronic patients with regard to self-management asks for a new understanding of nurses' supportive tasks. Nurses appear to have dissimilar perceptions of what self-management support entails. These distinct perceptions reflect different patient realities and demand that nurses are capable of reflexivity and sensitivity to patient needs. Different perspectives toward self-management support also call for diverse competencies and consequently, also for adaptation of educational nursing programs.

© 2014 Elsevier Ltd. All rights reserved.

\* Corresponding author at: Rotterdam University, Centre of Expertise Innovations in Care, Rochussenstraat 198, P.O. Box 25035, 3001 HA Rotterdam, The Netherlands.

E-mail address: [s.m.van.hoof@hr.nl](mailto:s.m.van.hoof@hr.nl) (S.M. van Hoof).

### What is already known about the topic?

- Self-management support requires a major effort from nurses as they play a key role in care for people with chronic conditions.
- Studies on health care professionals' attitudes or beliefs toward self-management revealed that health care professionals are not comfortable with patients making independent choices based on their patient expertise.

### What this paper adds

- This paper reveals four perspectives toward self-management support of patients with chronic conditions: the Coach perspective, the Clinician perspective, the Gatekeeper perspective, and the Educator perspective.
- The perspectives differ with regard to the understanding of the patients' and the nurses' role, the characterization of the nurse–patient relationship, and the goal of self-management support.

## 1. Background

The academic debate on the concept of self-management support in health care has paid scant attention to nurses' perceptions toward self-management support (Jonsdottir, 2013; Udhis, 2011; Wilkinson and Whitehead, 2009), although these perceptions may influence the type of support they will provide (Anderson and Funnell, 2005). It is essential therefore that these perceptions are taken into account, whilst appreciating that perceptions may differ, dependent on the goal pursued. Improving chronic patients' self-management skills is aimed at reducing health care expenditure, improving quality of life of the patient, or helping health care professionals in controlling therapy compliance (Kendall et al., 2011; Redman, 2007). The literature presents a variety of definitions of self-management (Barlow et al., 2002; Jonsdottir, 2013). As it presents a holistic and patient-centered view on self-management, we have adopted the definition by Barlow et al. (2002, p. 178): “*Self-management refers to the individual's ability to manage symptoms, treatment, physical and psychosocial consequences and life style changes inherent in living with a chronic condition and to affect the cognitive, behavioral and emotional responses necessary to maintain a satisfactory quality of life. Thus, a dynamic and continuous process of self-regulation is established*”. Assessing nurses' understanding of their role and tasks in self-management support requires a broad exploration of the concept of self-management. Schulman-Green et al. (2012) identified three categories of self-management processes from the perspective of the chronically ill: Focusing on illness needs, activating resources, and living with a chronic illness. ‘Focusing on illness needs’ refers to all kind of tasks related with medical topics such as learning about the illness, taking medicines and management of symptoms. ‘Activating resources’ refers to different resources such as healthcare and social support. ‘Living with a chronic illness’ encompasses processes related to daily life, such as activities of daily living, housekeeping or occupational work. Coping with the emotions of adjusting one's life to a chronic illness

also falls under this category. Much earlier, Corbin and Strauss (1985) had made a similar distinction, in terms of ‘illness work’, ‘everyday life work’, and ‘biographical work’, brought together under the overarching concept of ‘articulation work’, enabling choice between the different types of work and accounting for the distribution of work across actors. ‘Illness work’, then, is comparable with the ‘illness needs’ as described by Schulman-Green et al. (2012) while ‘everyday life work’ and ‘biographical work’ match ‘living with a chronic illness’. Distinguishing between patient tasks is important to identify areas in which people with a chronic disease might need support, and thereby defines the nursing role in self-management support. This approach expands the role of health care professionals in self-management (Coleman and Newton, 2005; Lorig and Holman, 2003). Informing a patient about the illness and thereby solely addressing patients' ‘illness needs’ is no longer sufficient; patients' coping skills and ability to activate resources must also be addressed (Coleman and Newton, 2005; Elissen et al., 2013).

Nurses are assigned a major role in self-management support because they are expected to understand how living with a chronic disease would impact the daily life of patients (Alleyne et al., 2011). This expectation has implications for nurses working in chronic care. Not only do they need to acquire new competencies (WHO, 2005), they also must accommodate a shift from ‘feeling responsible for’ toward ‘feeling responsible to’, implying a shift in the relationship between the nurse and the patient toward shared decision making (Jonsdottir, 2013; Wilkinson and Whitehead, 2009).

Several studies have investigated health care professionals' attitudes or beliefs toward specific aspects of self-management. Aasen et al. (2012) identified three kinds of nurses' perceptions of participation in end-of-life decisions of relatives of patients: paternalism, participation, and independent decision-making. Thorne et al. (2000) and Wilson et al. (2006) addressed nurses' attitudes toward patient expertise. Both groups concluded that health professionals were not comfortable in dealing with expert patients or relatives. Another study found that physicians generally preferred patients to follow their medical advice and had reservations about patients making their own independent choices (Hibbard et al., 2010). Other studies showed that health care professionals acknowledged they needed additional skills for self-management support (Jones et al., 2013; Mikkonen and Hynynen, 2012). Still, perceptions of nurses working in diverse health care settings on the concept of self-management support as a whole have not yet been systematically studied. In this paper we report the findings of a Q-methodological study which aimed to reveal different nurse perspectives on self-management support.

## 2. Methods

### 2.1. Q-methodology

Q-methodology was developed by Stephenson in the 1930s to study values and beliefs of people (Stephenson, 1935). Q-methodology has proved to be an adequate method to reveal nurses' perspectives on issues relevant to

nursing practice (Akhtar-Danesh et al., 2008). Other Q-methodological studies have investigated preferences of chronically ill adolescents (Jedeloo et al., 2010), addressed childhood obesity (Akhtar-Danesh et al., 2011), or explored attitudes of chronically ill patients regarding self-management (Dickerson et al., 2011; Kim et al., 2006; Stenner et al., 2000).

In Q-methodological studies, data are gathered in the form of Q-sorts. A Q-sort is a collection of statements, or any other sort of item, which are sorted by the participants according to a subjective dimension such as “agree most” versus “disagree most”. By sorting the statements, the viewpoint of the person on the issue is constructed. The Q-sort is pre-prepared by the researcher on the basis of statements about the subject from a variety of sources (Watts and Stenner, 2012). Collected Q-sorts are compared and contrasted through by-person factor analyses. That is, the factor analysis seeks to find groups of persons who have rank-ordered the statements in a similar way, whereas ‘normal’ factor analysis seeks to find correlation between items (Watts and Stenner, 2012). Shared values are clustered and interpreted, resulting in the delineation of factors or profiles of shared attitudes toward the topic investigated. The percentage of variance explained demonstrates how much of the full range of meaning and variability in the study has been captured (Watts and Stenner, 2012).

Q-methodology does not provide information about the distribution of these viewpoints among the study population, nor does it reveal the association of viewpoints with personal characteristics (Cross, 2005). This Q-methodological study was conducted in four sequential steps, described in the next sections.

#### 2.1.1. Step 1: Statements

The first step of a Q-methodological study is the design of the collection of representative statements. These statements should cover all the relevant ground on a subject (Watts and Stenner, 2012), and might be collected from interviews, newspapers, talk shows (Brown, 1993) or websites. In this study, we started with an unstructured approach of creating the statements (Watts and Stenner, 2012). A broad range of opinions on self-management support was selected via websites of stakeholders, policy documents and journal articles. In addition, information was extracted from transcriptions of qualitative interviews with nurses about their perceived tasks in self-management support from another study by our research group. In total 242 statements on self-management support were collected. Three researchers (SH, JD and SJ) made a first selection by sorting out duplicates. This resulted in a set of 71 statements. We ensured the balance and representativeness of this set by comparing the statements using the Five A's cycle model (Glasgow et al., 2003; Whitlock et al., 2002) and the Chronic Care Model (Wagner et al., 2001). The ‘Five-A's cycle’ is a framework with a counseling approach, entailing a series of sequential steps (Assess, Advise, Agree, Assist, and Arrange). This approach emphasizes collaborative goal setting, patient skill building to overcome barriers, self-monitoring, personalized feedback, and systematic links to community recourses (Glasgow et al., 2003; Whitehead,

2003). The Chronic Care Model contains all aspects the patient and the health care professional may encounter in their collaborative process of self-management (Wagner et al., 2001).

Supplementary to the use of these theoretical frameworks, content validity was also assessed by consulting other researchers engaged in self-management, experts from the national nursing organization and expert nurses ( $n = 8$ ). When there was disagreement on a statement; we kept the statement in the set (Akhtar-Danesh et al., 2008). This procedure resulted in a preliminary set of 37 statements for use in a pilot study to test face validity. In this pilot study, four participants of different age and educational level sorted the statements and were interviewed afterwards to elicit opinions on the phrasing of the statements. They were also given the opportunity to add statements or themes to the set, but refrained from doing so. Then, a final revision was performed: two statements were rephrased because they were considered ambiguous. The final set of statements contained 37 statements (Table 1).

#### 2.1.2. Step 2: Participants

The purpose of a Q-methodological study is to identify different opinions on a topic, instead of generalization (Akhtar-Danesh et al., 2008). A limited sample is sufficient, therefore, as long as this sample holds a maximum variation of opinions (Watts and Stenner, 2012). We invited a purposive sample of 49 registered nurses, representing a diversity of education, age, areas of nursing, work experience and gender (Table 2). Participants were recruited from our professional network in the Rotterdam – the Hague area e-mail. Recruitment was with the snowball method: participants who completed the Q-sorting were asked to suggest other nurses whom they expected to have a different opinion on self-management.

#### 2.1.3. Step 3: Sorting the statements

The statements were printed on separate cards with random numbers. The participants were asked to read the statements carefully and then sort them in three piles: agree, disagree, or neutral. Thereafter, they sorted the statements even more precisely on a Q-sort table with a forced-choice frequency distribution (Fig. 1) on a range from ‘−3 agree least’ to ‘+3, agree most’. This forced participants to make choices about which statement was more and which was less important to them. Next, participants in face-to-face interviews explained their motivations for the choice of the statements sorted on −3 and +3, and at random about other statements. The interviews lasted between 10 and 65 min and were recorded and transcribed ad verbatim.

#### 2.1.4. Step 4: Analysis

The individual Q-sorts were subjected to a by-person factor analysis (centroid factor analysis with varimax rotation), using PQMethod version 2.33 (Schmolck, 2002). Q-sorts that loaded significantly on a particular factor did so because they had similar sorting patterns. This might suggest shared viewpoints toward self-management support. These Q-sorts had correlations of at least 0.6 on

Table 1

List of statements with composite factor scores.

		Factor arrays			
		Coach	Clinician	Gatekeeper	Educator
1.	You should stimulate every patient to become a good 'self-manager'	1	1	-2 <sup>*</sup>	2
2.	It is necessary to monitor the patient to prevent worsening of health status	-1	1	-1	1
3.	You have to give attention to the skills a patient needs in order to manage his condition	1 <sup>a</sup>	2 <sup>a</sup>	1 <sup>a</sup>	2 <sup>a</sup>
4.	You should give the patient the liberty to choose for not being treated	0	0	3 <sup>*</sup>	-1
5.	You need to offer solutions for problems the patient encounters	-2	1 <sup>#</sup>	0 <sup>#</sup>	-3
6.	You should collaborate with the patient based on partnership	2 <sup>*</sup>	0	0	3 <sup>*</sup>
7.	You are allowed to intertwine your own goals with the goals of the patient	-1	0	0	-1
8.	You should always provide options for the patient	0 <sup>a</sup>	1 <sup>a</sup>	0 <sup>a</sup>	2 <sup>a</sup>
9.	Self-management support is teamwork	1	3 <sup>#</sup>	-1 <sup>*</sup>	2
10.	Self-management support is difficult	-2 <sup>#</sup>	0	0	0
11.	You should not refrain from giving unsolicited advice to the patient	-1	1	2 <sup>#</sup>	0
12.	You have to set goals together with the patient	2 <sup>a</sup>	2 <sup>a</sup>	1 <sup>a</sup>	3 <sup>a</sup>
13.	Self-management is nothing new	0 <sup>a</sup>	-1 <sup>a</sup>	1 <sup>a</sup>	-1 <sup>a</sup>
14.	Self-management support mainly is a matter of patient education	-1	-1	-1	1 <sup>#</sup>
15.	You have to intensify the support of the patient who makes an unhealthy choice	0 <sup>a</sup>	0 <sup>a</sup>	0 <sup>a</sup>	0 <sup>a</sup>
16.	You must unconditionally accept the choice of the patient, even if this deviates from your perception of good care	0	-2	-2	-1
17.	As a health professional you are responsible if the patient is not faring well	-1	-3	-3	-1
18.	The patient's experience is as valuable as my professional knowledge	2	0	1	-1
19.	You should only support the patient if he asks for it	-1	-1	-2	-3
20.	Self-management should contribute to affordability of health care	0	0	3 <sup>*</sup>	0
21.	Self-management support is only feasible if we reorganize health care	1	-1	0	-2
22.	You make people dependent on health care by using self-management tools	-3 <sup>#</sup>	0 <sup>*</sup>	-2	-2
23.	Care at a distance can replace the physical presence of health care professionals	1	-2	1	-2
24.	Self-management support is time-consuming for the health care professional	-3 <sup>*</sup>	-1	-2	0
25.	You have to let the patient decide what to discuss during contact moments	0	0	-3 <sup>#</sup>	-1
26.	Good self-management support should lead to lesser need of professional health care	0	-2 <sup>*</sup>	2	1
27.	Self-management support should achieve that the patient is better able to integrate his disease into his life	3	2	0	1
28.	In stimulating self-management you should give priority to the patient's life goals rather than the treatment goals	2 <sup>#</sup>	-1	-1	0
29.	The ultimate goal of self-management is adherence to treatment	-2	3 <sup>*</sup>	-1	0 <sup>#</sup>
30.	Good self-management support requires other knowledge and skills than those health care professionals are being taught now	1	1	0	-1
31.	The patient's social environment is key to successful self-management	0	0	-2	0
32.	Modern technology should be used to support self-management	1 <sup>a</sup>	0 <sup>a</sup>	0 <sup>a</sup>	0 <sup>a</sup>
33.	An individual health care plan is essential for successful self-management	3 <sup>a</sup>	2 <sup>a</sup>	2 <sup>a</sup>	1 <sup>a</sup>
34.	You should always be available to the patient	0	1	-1	-2
35.	The health care professional should have a limited role in self-management support.	-2	-2	0	0
36.	Self-management should be discussed in each contact with the patient	0	-1 <sup>#</sup>	2 <sup>#</sup>	0
37.	Self-management requires you to interfere in the patient's private life	-1	-3 <sup>*</sup>	0	0

Note: "-3" indicates that nurses with that perspective on (weighted) average disagree most with that statement; "3" indicates nurses holding that perspective on (weighted) average agree most with that statement (rank-ordered at extreme left/right in Fig. 1, respectively).

\* Distinguishing statements for a factor are indicated ( $p < .01$ ).

# Distinguishing statements for a factor are indicated ( $p < .05$ ).

<sup>a</sup> Consensus statements – those that do not distinguish between any pair of factors.

any one factor and no more than 0.4 on any other factor (Jordan et al., 2005). The correlation was calculated by weighted averaging (Watts and Stenner, 2012). In the factor analysis phase, these shared viewpoints were integrated into one single average Q-sort, a factor array. The factor arrays formed the basis of the different factor interpretations. The goal of factor interpretation is to fully understand and explain the shared viewpoint of the participants whose Q-sort was captured by the factor. The significant statements form the basis of the interpretation

but do not fully explain the factors. Participants may agree or disagree with a statement for different reasons. Thus, the explanations derived from all the Q-sorts that loaded significantly on the particular factor are used for these interpretations. Based on a Q-set of 37 statements and  $p < .01$ , the factor loading of a Q-sort must be equal to or higher than .42 (Watts and Stenner, 2012). The factor loadings and the interview data served as input for the description of the perspectives on self-management support.

**Table 2**  
Distribution of participants significantly loading on perspectives by health care setting, education, age group and gender ( $n = 39$ ).

	Coach	Clinician	Gatekeeper	Educator	Not loaded	Total $n$ (%)
<b>HC setting</b>						
Hospital	3	2	1	2	3	11 (28)
Home-care	6	1		2	5	14 (36)
Mental health care	1	2	1	2	1	7 (17)
Elderly care	2	1	1		2	6 (15)
General Practice				1		1 (3)
<b>Education</b>						
Master Advanced Nursing Practice (level 7)	2	1		2	1	6 (15)
Bachelor of Nursing program (level 5)	8	2	2	3	8	23 (59)
Basic nursing degree (level 4)	2	3	1	2	2	10 (26)
<b>Age group</b>						
≤30	5	3	1	2	3	14 (36)
31–40	1	1		3	2	7 (17)
41–50	2	1	1	2	4	10 (26)
≥51	4	1	1		2	8 (21)
<b>Gender</b>						
Male		2	2	1		5 (13)
Female	12	4	1	6	11	34 (87)

## 2.2. Ethical considerations

All nurses received written information about the study and gave their verbal informed consent. The nurses volunteered and did not receive a reward in return for their participation.

## 3. Results

### 3.1. Response

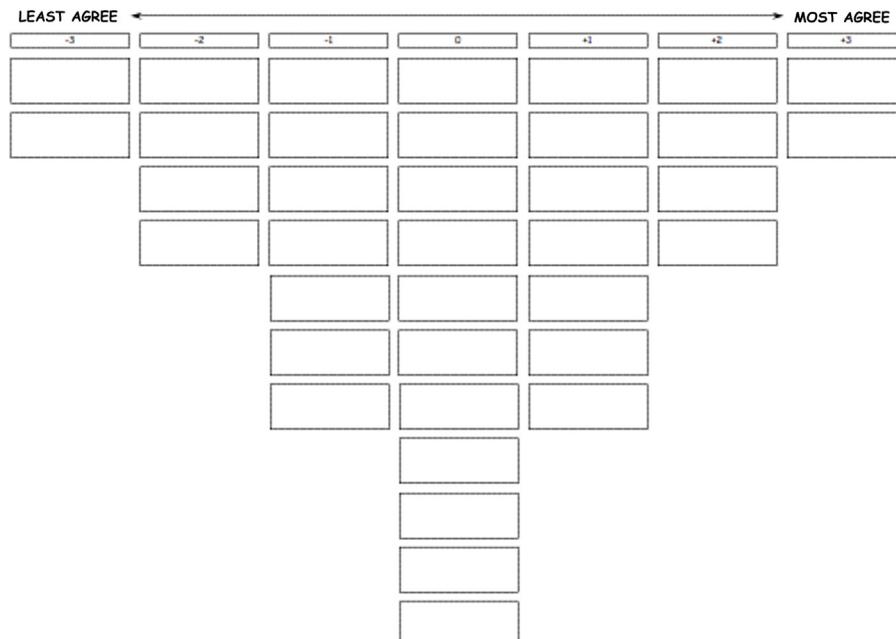
Of the 49 nurses who were invited, thirty-nine eventually participated. Four declined because of lack of

time, and six did not respond to the e-mail message, even after a reminder.

Data were collected in March–June 2013. Table 2 shows the characteristics of the participants as well as the distribution of the distinct perspectives among them.

### 3.2. Analysis

By-person factor analysis of Q-sorts with correlations of at least 0.6 on any one factor and no more than 0.4 on any other factor revealed a four factor solution, indicating four distinct perspectives on self-management support. According to this criterion eleven Q-sorts loaded strongly on one



**Fig. 1.** Forced-choice frequency distribution in Q-sort.

factor but not on the others. These Q-sorts helped to determine the four factor solution. The number of participants who loaded significantly ( $>.42$ ) on each separate perspective (these are the so-called exemplars) was: the Coach  $n=12$ , the Clinician  $n=6$ , the Gatekeeper  $n=3$ , the Educator  $n=7$ ). Each factor explained 7–16% of the variance, 45% in total. Correlation between the factor arrays ranged from low ( $r=.18$ ) to moderate ( $r=.46$ ). The lowest correlation was between the Clinician perspective and the Gatekeeper perspective, indicating that these two perspectives were the most distinct. The highest correlation was between the Coach perspective and the Educator perspective, indicating that these two perspectives have the most in common.

Table 1 presents the list of statements with the factor arrays. Seventeen of the 37 statements showed significant differences between the factors ( $p < .05$ ). These 17 statements formed the basis of the interpretation of the factors, complemented with the qualitative analysis which was conducted in three steps. In the first step, the transcripts of the interviews were read carefully and summarized to acquire an overview of the participants' perspectives about self-management. Then patterns were explored among the participants loading significantly on one factor. Finally, their argumentation with regard to the distinguishing statements was used for the factor interpretation.

In the next sections, the four perspectives will be described.

### 3.3. The Coach perspective

*'It is the patient's life. He is the one who has to deal with his own chronic condition for 24 hours a day, seven days a week. [...] These people already do a lot when it comes to managing their condition. One cannot say that they do too little or nothing at all. One just can't.'*

We named this perspective the Coach perspective because nurses who adhere to this view see it as their main goal to support patients in incorporating their chronic condition into their lives. Self-management is regarded as a natural part of patients' life (3; numbers in brackets referring to Q-sort statements in Table 1) and subsequently, self-management support is seen as a self-evident, natural task for nurses (27, 2). Supporting self-management is not regarded as time-consuming (24) or as a difficult task (10). Still, self-management support requires different skills and attitudes than nurses have learned thus far (30): nurses should learn to keep their own opinion to themselves, to refrain from giving unsolicited advice and not come up with solutions (5, 11). Using self-management tools will make patients less dependent on health care (22).

Nurses with the Coach perspective have a holistic view and focus on the abilities and needs of the patient. One participant stated: *'Good self-management support is only possible if you look at the holistic person, if you open up all your senses and look at what this person needs.'*

Nurses within the Coach perspective consider the patient as an expert in living with the particular chronic condition (18). More than in the other three perspectives, patients should co-decide what will be discussed with

healthcare professionals and are regarded as a partner (6, 25). These nurses also think that patients' needs should be leading health care (28), requiring the reorganization of health care (21).

Twelve participants loaded significantly on this factor. These were all women, with different educational level (level 4, 5 and Master Advanced Nursing Practice). Ages varied from 21 to 54 years. They worked in hospitals, home care, mental health care, and institutionalized elderly care.

### 3.4. The Clinician perspective

*'Adherence is the starting point. This is the prerequisite for patients to be discharged.'*

In this perspective, which we named the Clinician perspective, self-management support involves teamwork (9), and above all is a means to foster adherence (29). Yet, self-management itself is not a regular topic of conversation with the patient (36). Self-management does not need to lead to less professional support (26). The nurses who adhere to this perspective consider it important to regularly monitor the condition of their patients (2); monitoring is easily accomplished via direct contact between the patient and the nurse (23). Therefore, the patient should be facilitated to contact the nurse at all times (34). The patient-nurse relationship is a goal-oriented relationship in this perspective. The personal life of the patient is beyond the scope of the nurse (37), and personal (life) goals of the patient are secondary to medical goals (28). One participant commented: *'What would be the advantage of interfering with the personal lives of patients?'*

These nurses believe that solely providing education or information is not sufficient; they should also propose recommendations and solutions for problems the patient encounters (11, 5, 14). The patient is not always considered capable of making the best choices and thus nurses cannot always accept patient choices (16), but need to direct the patient toward better choices in terms of adherence. One participant commented: *'There are some boundaries within which the patient has to stay in order to secure safety. For that reason, sometimes you have to take the lead and give them options for choices they don't want to make at all.'*

According to this perspective, the professional knowledge of the nurse is valued higher than the expertise of the patient (18), as one participant stated: *'Not all experiences are good experiences.'*

Six participants loaded significantly on this factor. These were four women and two men, with different types of education. Ages varied from 21 to 53 years. They worked in the hospital setting, home care, mental health care, and elderly care.

### 3.5. The Gatekeeper perspective

*'As a nurse you have a societal function. You have to defend general interests in health care, and health care should remain affordable for a lot of people.'*

In this perspective, which we named the Gatekeeper perspective, the goal of self-management is to reduce public expenditure (20). The nurse takes the lead and determines which topics will be discussed with the patient (25). A participant expressed: *'As a professional you have a broader view. [...] You have to discuss topics the patient does not bring up himself.'* More than in the other three perspectives, it is important to promote self-management during each contact with the patient, so as to stimulate the patient to become more independent of health care (26, 36). The nurse with the Gatekeeper perspective also proposes solutions and recommendations for problems the patient encounters (5, 11). A participant commented on this: *'It is part of being a good health care professional to act when you notice a conflict between the choice of a patient and the 'healthy' choice.'* Nevertheless, the patient has the right not to be treated (4) and the nurse does not feel responsible if the patient does not do well (17). One participant explained: *'The nurse is responsible for giving advice and possible solutions. Not for the outcome of these.'* Self-management is not necessarily something in which the whole team is involved (9). Unlike the nurses with other perspectives, the nurse who adheres to this perspective feels that not every patient should be stimulated to become a good self-manager of his chronic condition (1).

Three participants loaded significantly on this factor. These were one woman and two men, with different types of educational level. Ages varied from 28 to 53 years. They worked in the hospital setting, mental health care, and elderly care.

### 3.6. The Educator perspective

*'You want the patient to do it himself. You practice together if it is necessary and you then inform him once again.'*

From the Educator perspective, collaboration with the patient is an essential aspect of self-management (6, 12). The goal of self-management is not necessarily adherence (29); the patient is considered to be a good self-manager when he is capable to act in unexpected situations related to his chronic condition. While in the Coach perspective the focus lies on maintaining a good life, the Educator believes the illness itself is the leading factor. The role of the nurse is important (35); the nurse takes the initiative to support the patient (19) and professional knowledge is valued higher than patient experience (18). One participant explained why: *'Sometimes, ignorance plays a part. As a health professional it is my duty to support patients and especially to give information, even when the patient does not ask for it.'* Providing health education (14) is an important skill for nurses to enable the patient to manage his condition. Sometimes the nurse has to monitor the patient's clinical condition (2), for which she believes physical contact is required (23). Self-management support is sometimes perceived as difficult (10) and, more than in other perspectives, time-consuming (24). In this regard, a participant stated: *'Sometimes, it is difficult. You can't have a partnership with everyone [...] You are inclined*

*to come up with solutions yourself, but you have to let them think for themselves to come up with something they feel content with.'*

Unexpected situations that bear on the chronic condition should be managed by the patient himself, rather than resorting to contacting the health care professional (34). One participant commented: *'You have to make sure someone is capable of managing himself, which is my goal. Then you don't have to be available at all times [...] He should not call saying: "I have this or that, what should I do now?"' He has to know what to do.'*

Seven participants loaded significantly on this factor. These were six women and one man, with different types of educational level. Ages varied from 26 to 50 years. They worked in the hospital setting, mental health care, and elderly care.

### 3.7. Consensus about self-management support

Consensus (i.e. number of statistically non-significant difference in ranking statements between any pair of perspectives;  $p > .05$ ) was found on seven statements. In all four perspectives, self-management is not something new (13) and it is important to pay attention to the skills a patient needs to manage his condition (3). Nurses are expected to collaborate with patients through developing goals together, use an individual health care record, and give the patients options of choices (8, 12, 33). The participants were neutral about the statement suggesting to increase support when a patient makes an unhealthy choice and the one about the use of modern technology (15, 32). It is worth mentioning that statistical consensus does not necessarily imply agreement between participants about a statement. For instance, attitudes on the purpose of an individual health care record could differ. The Clinician nurse used an individual health care record so that the team knew what was agreed with the patient, while the Coach nurse emphasized the individualized aspects of the health care record.

## 4. Discussion

This study revealed four distinct perspectives of nurses on self-management support. Self-management support seems to be an obvious task for nurses (Alleyne et al., 2011); it has a central position in the Dutch new general nursing competencies (Lambregts and Grotendorst, 2012). Consistent with the current debate in the literature (Bodenheimer et al., 2002; Jonsdottir, 2013; Kendall et al., 2011), we could conclude that nurses hold different interpretations of self-management support. Main differences between the perspectives were related to the goal of self-management support, the role of the nurse and the role of the patient (Table 3). The goal of self-management support from the Coach perspective is to help the patient to incorporate the disease into his life. In the Clinician perspective adherence is the most important goal, as a means to gain control over the disease (Yen et al., 2011). The disease also has a central position in the perception of nurses with the Educator perspective, who focus on teaching their patients problem solving skills. In contrast,

**Table 3**  
Main characteristics of the four perspectives.

Perspective	Characteristic		
	Patient role	Nurse role	Goal of self-management support
Coach Clinician	Expert Compliant	Following Prescriptive	Incorporate chronic condition in life Patient adherence Good clinical patient outcomes
Gatekeeper Educator	Independent Active student	In the lead Teaching	Reduction of health care costs Live with chronic condition Good clinical patient outcomes

the Clinician nurse places an emphasis on providing solutions for problems patients may encounter. The goal of self-management support in the Gatekeeper perspective is quite different from that in the other three perspectives; namely to reduce costs and support rational decision making. Although gatekeeper behavior was also found in a study about healthcare professionals' attitudes toward patient expertise (Anderson and Funnell, 2005; Thorne et al., 2000), the present finding that nurses may assume a gatekeeper role is new in the context of self-management support. Nurses with the Clinician and the Educator perspectives placed professional knowledge above patient experiences, which is in line with other studies that revealed that health care professionals had difficulty acknowledging patient expertise as valuable factor in the care of patients with chronic conditions (Thorne et al., 2000; Wilson et al., 2006). Rather, they relied on their own professional knowledge and even tended to share this knowledge if patients did not comply with therapy, even when lack of knowledge was not the issue (Thorne et al., 2000). Both the Clinician nurse and the Educator nurse aim for good clinical patient outcomes and believe that regular monitoring is important. This is consistent with a study by Elissen et al. (2013) on self-management in practice, which, however, also showed nuances of perceptions on the importance of monitoring.

Attitudes of nurses toward self-management and the consequential perspectives are in part defined by the type of patients they care for (Barlow et al., 2002). Psychiatric patients might require a different approach to self-management support than frail elderly people (Haslbeck et al., 2012; Lucock et al., 2011). In our study however, the different health care settings were evenly distributed among the four perspectives, suggesting that we have captured beliefs and attitudes rather than tasks opinions. Nevertheless, further research should determine the prevalence and distribution of the perspectives in a larger, representative sample of the wider population of nurses.

We observed strong contrasts between some perspectives in their strengths and pitfalls. One strength of the Coach perspective is the broad scope, whereas the Clinician perspective has a focus on good clinical outcomes. Encouraging patients' independence is a strength of the Gatekeeper perspective, whereas the strength of the Educator perspective lies in attention to the patient's coping skills. Despite the strong contrasts between some perspectives, nurses will not fit exclusively into one perspective. Most nurses will have one dominant perspective complemented by one or more secondary perspectives. In short, we cannot recommend one

particular perspective on self-management support. Furthermore, patients benefit from support from nurses who are able to move between different approaches (Hostick and McClelland, 2002). Sometimes they need coaching; in other situations education or a clinician approach may be more suitable. It will be difficult, therefore, to describe all-purpose nursing competencies for self-management support. Moreover, nurses must have the capability to reflect on their own perspective toward self-management support and, if necessary, act according to one of their secondary perspectives to the benefit of the patient.

#### 4.1. Self-management support perspectives in healthcare

The relevance of the identification of four different perspectives on self-management support could go beyond nurse professionalism. Although we did not perform a systematic search, we found similar perspectives in self-management literature. The Coach perspective seems to fit best with the patient-centeredness approaches described by Glasgow et al. (2003) and the Chronic Care Model (Wagner et al., 2001), due to the esteem for patient expertise and autonomy. Moreover, the health care professional in this perspective addresses all three categories of self-management processes from the perspective of the patient described by Schulman-Green et al. (2012). The focus of the Gatekeeper is described in literature as 'self-management as cost-cutting mechanism' (Kendall et al., 2011), which strategy is in line with the Dutch governmental perspective (VWS, 2008).

In the Educator perspective, the role of the nurse is congruent to the way self-management education is described in the competencies for diabetic care in the Netherlands and the definition of self-management of the Dutch Health Care Insurance Board (CVZ, 2010; NDF, 2011). Health education is focused on the illness itself (Coleman and Newton, 2005) and a broader focus of the nurse is required only when life interferes with the therapy (Elissen et al., 2013). The Clinician perspective is referred to in other studies as the 'medical model' or as 'traditional care' (Bodenheimer et al., 2002; Koch et al., 2004).

It would be interesting to further systematically study this, as findings could help clarify underlying tensions in the definition of, research into, and policy with regard to self-management and self-management support.

Although this study focused on nurses' perceptions, self-management support is a multidisciplinary assignment. Nurses in chronic care should collaborate with other providers and these professionals also need to re-evaluate

the focus of the relationship with their patients (Jones et al., 2013; Visse et al., 2010; WHO, 2005). It would be fascinating to examine whether other professionals hold similar perspectives and therefore we intend to replicate this study in a sample of Dutch physiotherapists.

#### 4.2. Strengths and limitations of the study

A strength of our study is that we gathered additional motivations of the nurses, in addition to the Q-sort. Few Q-methodological articles pay attention to the use of qualitative data in the analysis of the factors. However, in this study the qualitative data was essential in interpreting the factor scores. For example, given the high correlation between the Coach and the Educator perspectives, it is clear that both attach importance to paying attention to aspects of living with a chronic disease. Nevertheless, they emphasize different aspects and define their relation with the patient differently. This was not directly visible in the quantitative data.

Q-methodological studies often pay little attention to how statements are developed and by which criteria, and how representative a set of statements is (Kim et al., 2006; Morecroft et al., 2006; Shabila et al., 2014). This is remarkable since the statements shape the scope of the participants and provide crucial input for the results. In our study, we tried to capture all elements of self-management support by using two theoretical frameworks. To enhance content validity, experts in self-management commented on the statements. Face validity was tested in a pilot and participants were asked to remark on the statements and point out missing topics. Also, the analysis of the interviews did not indicate that relevant elements were missing. We feel that the statements encompassed a broad view on self-management support which led participants to express dissimilar views on the subject.

We used purposive sampling, inviting representatives from different age groups, education and health care settings, and asked nurses to recruit others with a different perspective on self-management support than their own. Consequently, we had a diversity of participants, which is likely to have contributed to the identification of four distinctive perspectives on self-management support. However, it is possible we did not capture all the existing attitudes of nurses toward self-management support.

All participants worked in the Rotterdam – the Hague area, in the Netherlands. Nurses from other geographical areas or from other countries could well have a different attitude toward self-management. A Q-study, however, is not intended to generate general findings about the prevalence and distribution of attitudes (Akhtar-Danesh et al., 2008). However, it might be interesting to learn if and how specific nurse characteristics, such as age or health care setting, are associated with specific perspectives. As a next step therefore we will conduct a survey among a larger, nation-wide sample of nurses.

#### 4.3. Practice implications

The relevance of having identified these four perspectives toward self-management support lies in knowing

the strengths and main characteristics of each perspective. Since different situations and patients demand different kinds of attitudes, nurses should be able to incorporate some aspects of all the perspectives in daily practice. It may be difficult however, to judge what perspective is required when. That poses a new challenge on nurse education. Nurse education and nursing practice could use these perspectives also to reflect on the nursing competencies.

## 5. Conclusion

This study has revealed four distinct nurses' perspectives toward self-management support: the Coach, the Clinician, the Gatekeeper, and the Educator perspective. Each has its own strengths and limitations, and therefore it is not possible to select a preferred one. While nurses will act from one dominant perspective, they should be aware that their work environment and the patient's preferences may require them to act from a secondary perspective. Nurses should therefore be able to switch between the four perspectives. Critical reflection on one's own perspective and interpretation of the approach required in a certain situation seems to be a key competency for adequate self-management support. Each perspective requires distinct competencies from nurses, and nurse education should equip nurses to fulfill the different roles defined by the four perspectives.

## Acknowledgements

This study forms part of the Research Program NURSE-CC: Rotterdam Consortium for Nursing Research into Self-management and Empowerment in Chronic Care, funded by the Netherlands Organization for Health Research and Development (Grant number 520001004). We thank the other members of our research team (particularly Janet Been-Dahmen and Erwin Ista), the members of the consortium and of the steering committee for their contribution to the study. We thank Job van Exel for sharing his methodological expertise. Finally, we thank all nurses who participated in the study and appreciate the contribution of nursing students from Rotterdam University to the interviews.

### Conflict of interest

The authors have no conflict of interest to declare.

### Funding

This work was funded by ZonMw, the Netherlands Organization for Health Research and Development (Grant number 520001004). The sponsor was not involved in the project planning, data collection and analysis, the paper and the decision to submit the paper for publication.

### Ethical approval

For this study, no ethical approval was necessary under Dutch law.

## References

- Aasen, E.M., Kvangarsnes, M., Heggen, K., 2012. Nurses' perceptions of patient participation in hemodialysis treatment. *Nurs. Ethics* 19 (3) 419–430.

- Akhtar-Danesh, N., Baumann, A., Cordingley, L., 2008. Q-methodology in nursing research: a promising method for the study of subjectivity. *West. J. Nurs. Res.* 30 (6) 759–773.
- Akhtar-Danesh, N., Dehghan, M., Morrison, K.M., Fonseka, S., 2011. Parents' perceptions and attitudes on childhood obesity: a Q-methodology study. *J. Am. Acad. Nurse Pract.* 23 (2) 67–75.
- Alleyne, G., Hancock, C., Hughes, P., 2011. Chronic and non-communicable diseases: a critical challenge for nurses globally. *Int. Nurs. Rev.* 58 (3) 328–331.
- Anderson, R.M., Funnell, M.M., 2005. Patient empowerment: reflections on the challenge of fostering the adoption of a new paradigm. *Patient Educ. Couns.* 57 (2) 153–157.
- Barlow, J., Wright, C., Sheasby, J., Turner, A., Hainsworth, J., 2002. Self-management approaches for people with chronic conditions: a review. *Patient Educ. Couns.* 48 (2) 177–187.
- Bodenheimer, T., Lorig, K., Holman, H., Grumbach, K., 2002. Patient self-management of chronic disease in primary care. *JAMA* 288 (19) 2469–2475.
- Brown, S.R., 1993. A primer on Q methodology. *Operant Subj.* 16 (3/4) 91–138.
- Coleman, M.T., Newton, K.S., 2005. Supporting self-management in patients with chronic illness. *Am. Fam. Physician* 72 (8) 1503–1510.
- Corbin, J., Strauss, A., 1985. Managing chronic illness at home: three lines of work. *Qual. Sociol.* 8 (3) 224–247.
- Cross, R.M., 2005. Exploring attitudes: the case for Q methodology. *Health Educ. Res.* 20 (2) 206–213.
- CVZ, 2010. Begeleiding bij zelfmanagement chronische ziekten. (Providing Self-management Support in Chronic Diseases). Dutch College of Health Insurance.
- Dickerson, J.B., Smith, M.L., Dowdy, D.M., McKinley, A., Ahn, S., Ory, M.G., 2011. Advanced practice nurses' perspectives on the use of health optimization strategies for managing chronic disease among older adults in different care settings: pushing the boundaries of self-management programs. *Geriatr. Nurs.* 32 (6) 429–438.
- Elissen, A., Nolte, E., Knai, C., Brunm, M., Chevreur, K., Conklin, A., Durand-Zaleski, I., Erler, A., Flamm, M., Frolich, A., Fullerton, B., Jacobsen, R., Saz-Parkinson, Z., Sarria-Santamera, A., Sonnichsen, A., Vrijhoef, H., 2013. Is Europe putting theory into practice? A qualitative study of the level of self-management support in chronic care management approaches. *BMC Health Serv. Res.* 13 (1) 117.
- Glasgow, R.E., Davis, C.L., Funnell, M.M., Beck, A., 2003. Implementing practical interventions to support chronic illness self-management. *Jt. Comm. J. Qual. Saf.* 29 (11) 563–574.
- Haslbeck, J.W., McCorkle, R., Schaeffer, D., 2012. Chronic illness self-management while living alone in later life: a systematic integrative review. *Res. Aging* 34 (5) 507–547.
- Hibbard, J.H., Collins, P.A., Mahoney, E., Baker, L.H., 2010. The development and testing of a measure assessing clinician beliefs about patient self-management. *Health Expect.* 13 (1) 65–72.
- Hostick, T., McClelland, F., 2002. 'Partnership': a co-operative inquiry between Community Mental Health Nurses and their clients. 2. The nurse-client relationship. *J. Psychiatr. Ment. Health Nurs.* 9 (1) 111–117.
- Jedloo, S., van Staa, A., Latour, J.M., van Exel, N.J., 2010. Preferences for health care and self-management among Dutch adolescents with chronic conditions: a Q-methodological investigation. *Int. J. Nurs. Stud.* 47 (5) 593–603.
- Jones, F., Livingstone, E., Hawkes, L., 2013. 'Getting the balance between encouragement and taking over' – reflections on using a new stroke self-management programme. *Physiother. Res. Int.* 18 (2) 91–99.
- Jonsdottir, H., 2013. Self-management programmes for people living with chronic obstructive pulmonary disease: a call for a reconceptualisation. *J. Clin. Nurs.* 22 (5–6) 621–637.
- Jordan, K., Capdevila, R., Johnson, S., 2005. Baby or beauty: a Q study into post pregnancy body image. *J. Reprod. Infant Psychol.* 23 (1) 19–31.
- Kendall, E., Ehrlich, C., Sunderland, N., Muenchberger, H., Rushton, C., 2011. Self-managing versus self-management: reinvigorating the socio-political dimensions of self-management. *Chronic Illn.* 7 (1) 87–98.
- Kim, D.S., Kim, H.S., Schwartz-Barcott, D., Zucker, D., 2006. The nature of hope in hospitalized chronically ill patients. *Int. J. Nurs. Stud.* 43 (5) 547–556.
- Koch, T., Jenkin, P., Kralik, D., 2004. Chronic illness self-management: locating the 'self'. *J. Adv. Nurs.* 48 (5) 484–492.
- Lambregts, J., Grotendorst, A., 2012. V&V 2020 Deel 1 Leren van de toekomst(V&V 2020. Part 1. Learning from the Future). Utrecht.
- Lorig, K.R., Holman, H., 2003. Self-management education: history, definition, outcomes, and mechanisms. *Ann. Behav. Med.* 26 (1) 1–7.
- Lucock, M., Gillard, S., Adams, K., Simons, L., White, R., Edwards, C., 2011. Self-care in mental health services: a narrative review. *Health Soc. Care Community* 19 (6) 602–616.
- Mikkonen, I., Hynynen, M., 2012. Health care professionals' views about supporting patients' self-management. *Health Educ.* 112 (5) 396–405.
- Morecroft, C., Cantrill, J., Tully, M.P., 2006. Individual patient's preferences for hypertension management: a Q-methodological approach. *Patient Educ. Couns.* 61 (3) 354–362.
- NDF, 2011. Zelfmanagementeducatie bij diabetes. Een raamwerk voor competenties van zorgprofessionals(Self-management Education in Diabetes Care. A Framework of Competencies for Health Care Professionals). Amersfoort.
- Redman, B.K., 2007. Responsibility for control; ethics of patient preparation for self-management of chronic disease. *Bioethics* 21 (5) 243.
- Scholck, P., 2002. PQMethod (version 2.33) .
- Schulman-Green, D., Jaser, S., Martin, F., Alonzo, A., Grey, M., McCorkle, R., Redeker, N.S., Reynolds, N., Whittemore, R., 2012. Processes of self-management in chronic illness. *J. Nurs. Scholarsh.* 44 (2) 136–144.
- Shabila, N.P., Al-Tawil, N.G., Al-Hadithi, T.S., Sondorp, E., 2014. Using Q-methodology to explore people's health seeking behavior and perception of the quality of primary care services. *BMC Public Health* 14 (1) 2.
- Stenner, P.H.D., Dancey, C.P., Watts, S., 2000. The understanding of their illness amongst people with irritable bowel syndrome: a Q methodological study. *Soc. Sci. Med.* 51 (3) 439–452.
- Stephenson, 1935. Correlating persons instead of tests. *Character Personal.* 4, 17–24.
- Thorne, S.E., Ternulf Nyhlin, K., Paterson, B.L., 2000. Attitudes toward patient expertise in chronic illness. *Int. J. Nurs. Stud.* 37 (4) 303–311.
- Udlis, K.A., 2011. Self-management in chronic illness: concept and dimensional analysis. *J. Nurs. Healthc. Chronic Illn.* 3 (2) 130–139.
- Visse, M.A., Teunissen, T., Peters, A., Widdershoven, G.A.M., Abma, T.A., 2010. Dialogue for air, air for dialogue: towards shared responsibilities in COPD practice. *Health Care Anal.* 18 (4) 358–373.
- VWS, 2008. Programmatie aanpak chronisch ziekten. (Programmatic approach for chronic diseases). Ministry of Health Welfare, and Sports, The Hague.
- Wagner, E.H., Austin, B.T., Davis, C., Hindmarsh, M., Schaefer, J., Bonomi, A., 2001. Improving chronic illness care: translating evidence into action. *Health Aff. (Millwood)* 20 (6) 64–78.
- Watts, S., Stenner, P., 2012. *Doing Q Methodological Research: Theory, Method and Interpretation.* SAGE Publications Ltd., London.
- Whitehead, D., 2003. Health promotion and health education viewed as symbiotic paradigms: bridging the theory and practice gap between them. *J. Clin. Nurs.* 12 (6) 796–805.
- Whitlock, E.P., Orleans, C.T., Pender, N., Allan, J., 2002. Evaluating primary care behavioral counseling interventions: an evidence-based approach. *Am. J. Prev. Med.* 22 (4) 267–284.
- WHO, 2005. *Preparing a Health Care Workforce for the 21st Century: the Challenge of Chronic Conditions.* World Health Organization, Geneva.
- Wilkinson, A., Whitehead, L., 2009. Evolution of the concept of self-care and implications for nurses: a literature review. *Int. J. Nurs. Stud.* 46 (8) 1143–1147.
- Wilson, P.M., Kendall, S., Brooks, F., 2006. Nurses' responses to expert patients: the rhetoric and reality of self-management in long-term conditions: a grounded theory study. *Int. J. Nurs. Stud.* 43 (7) 803–818.
- Yen, L., Gillespie, J., Rn, Y.H., Kljakovic, M., Anne Brien, J., Jan, S., Lehnborn, E., Pearce-Brown, C., Usherwood, T., 2011. Health professionals, patients and chronic illness policy: a qualitative study. *Health Expect.* 14 (1) 10–20.