NURSES’ ATTITUDES TOWARDS PEOPLE WITH DEMENTIA: 
THE SEMANTIC DIFFERENTIAL TECHNIQUE

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Key words: attitudes; dementia; entropy; nursing; semantic differential

One important aspect of the nurse–patient relationship is nurses’ attitudes towards their patients. Nurses’ attitudes towards people with dementia have been studied from a wide range of approaches, but few authors have focused on the structure of these attitudes. This study aimed to identify a structure in licensed practical nurses’ attitudes towards people with dementia.

Twenty-one group dwelling units for people with dementia at 11 nursing homes participated in the study. A total of 1 577 assessments of 178 patients were sent out to 181 respondents and 1 237 answers were returned. The semantic differential technique was used. The scale had 57 bipolar pairs of adjectives that estimate an unknown number of dimensions of nurses’ attitudes towards an identified patient. The assessments were analysed using entropy-based measures of association combined with structural plots. The analysis revealed four dimensions, which related to licensed practical nurses’ opinions of the patients: an ethical and aesthetic dimension; an ability to understand; an ability to experience; and an ability for social interaction. The results of the study indicated that, on the positive to negative attitude continuum, the nurses’ attitudes fell at the positive to neutral end. This is an important finding owing to the personhood perspective, from which it is reasonable to assume that, with a more positive attitude to people with dementia, the prerequisites for person-centred care will improve.

Introduction

Our attitudes to each other are of the utmost importance. In his famous description of the relationship between ‘master and slave’, Hegel\(^1\) stated that the meeting between two individuals is a struggle that can result in one of them abandoning his or her life to the other.

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In the care of people with dementia, this can be interpreted as a connection between the carers’ experience of their patients and their experiences of themselves as carers. There can be a risk of a negative process if the carers perceive the patient as a worthless object, which can result in their experiencing their own caring for the patient as meaningless and their work as worthless. When their work is so meaningless and worthless, they must be worthless people themselves. This implies that our attitudes are of great importance when it comes to the quality of nursing care.

Studies of attitudes towards older people have shown that, on the positive to negative attitude continuum, attitudes towards older people fall at the neutral to negative end. This has been shown in a variety of studies of health care professionals’ and students’ attitudes towards older people, including the attitudes of medical students, nursing students, nursing home aides, social workers and college students.

Attitudes towards people with dementia have been studied from a wide range of approaches and from different angles. They include general practitioners’ and nurses’ attitudes towards their feelings about dementia care, attitudes towards euthanasia for patients with severe dementia, enteral feeding of people with dementia and nurses’ attitudes towards hypothetical target groups of older adults in nursing homes, including people with dementia. Nurses’ attitudes towards caring for people with dementia in geriatric care and in traditional institutions compared with group living, staff’s opinion of their work with these patients, and nurses’ attitudes towards patients with aggressive behaviour have also been studied.

It has been shown by Brodaty et al. that staff in nursing homes perceive with dementia residents more negatively than positively, and that more negative attitudes were associated with less strain and less satisfaction with the work. Using the semantic differential technique, Asplund and Norberg reported almost similar results. On a scale of 57 bipolar pairs of adjectives, almost all were rated towards the negative poles.

Although there is a wide range of studies about attitudes towards people with dementia, few have focused on a structure in the nurses’ attitudes. In order to enhance our knowledge of the attitudes of nursing staff, it is important to investigate and try to elucidate the structure in nurses’ attitudes towards people with dementia.

The aim of the present study was to identify a structure in licensed practical nurses’ attitudes towards people with dementia.

Method

Sample

The sample consisted of all the licensed practical nurses (LPN) and all the inpatients at 21 group dwelling units for people with dementia in 11 nursing homes.

Procedure

This study was designed to investigate the attitudes of LPNs who had completed a two-year education programme towards inpatients with dementia in a municipality in central Sweden. It was conducted at 11 nursing homes (one other was excluded because of its remote location) that contained 21 group dwelling units housing people.
with dementia. All the permanent staff were asked to take part in the study. Their attitudes to people with dementia were assessed using the so-called semantic differential (SeD) technique (described below).24

One questionnaire per patient was sent to all the LPNs on each ward (ie if one ward had nine patients and eight LPNs, each LPN received nine questionnaires relating to nine identified patients, 72 questionnaires in all).

A total 1577 assessments of 178 patients were sent to 181 respondents; 1237 assessments were received from 144 respondents (78.4%).

Two of the authors (K-GN, YH) distributed the instruments personally to each ward manager, who in turn delivered sealed envelopes containing a questionnaire to each staff member. The staff were given written information about the study and its purpose and they were also informed about confidentiality. They were asked to put each finished questionnaire into a sealed envelope and give it to the manager. The questionnaires were then collected personally by two of the authors (K-GN, YH).

The study was performed over four months, from January to April 2004. The power of the study was 0.84 (sample size = 1237; \( \alpha = 0.05 \); effect size = 0.15).

Instrument

For the purpose of this study, a SeD measure24 developed by Asplund and Norberg23 was used. The SeD technique is a method for quantifying the meaning that is attached to an identified phenomenon, concept or individual through a series of bipolar pairs of adjectives. In this study, these were 57 bipolar pairs of adjectives. The scale was used to estimate an unknown number of dimensions of nurses’ attitudes towards individually identified patients. The adjectives were identified and selected from interviews and group discussions with nurses experienced in the care of people with dementia.23

On a 7-point linear scale, the respondents indicated their degree of agreement with each pair of adjectives: a score of 1 indicated the positive extreme and 7 the negative extreme, while a central score indicated a neutral opinion. For each variable, high scores showed higher levels of negative attitudes or emotions, while lower scores indicated higher levels of positive attitudes. The SeD technique has been found to be reliable and valid.24 Cronbach’s alpha was 0.954.

The SeD technique has been used to measure schizophrenic patients’ feelings,25 nurses’ attitudes towards homosexual patients,26 and attitudes towards being depressed.27 It has also been used to measure nurses’ reactions towards patients with severe dementia23 and psychiatric nurses’ attitudes towards identified inpatients.28,29

Statistical analysis

To elucidate the relationship between the variables in the questionnaire, entropy-based measures of association combined with structural plots were used.30-32

The entropy-based association was calculated using EMA (Entropy-based Measure of Association), a program developed by Lorenc at the Statistics Department, Stockholm University, Sweden.33 The data were ordinal, so entropy-based measures were a reliable method for calculating the relationships because the associations were based on outcome probabilities.
To illustrate the associations graphically, structural plots were drawn, from which the clique structures were identified. All variables in a clique structure are highly associated with each other. If any variable outside the clique is associated with any of the variables within the clique, at the same level of association that forms the clique, that variable is included in the graph. The identified clique structures (hereafter called dimensions) are given in the results. Subjectively, the level of association was chosen as 16% according to relevance and interpretability.

**Ethical considerations**

Participation in the study was voluntary and the questionnaires were answered anonymously. In order to guarantee confidentiality, details were changed so that no participant, patient or ward/nursing home could be recognized in the report. The study was approved by the ethics committee at the Medical Faculty, Umeå University, Sweden (Dnr 99-129).

**Results**

The LPNs ranged in age from 22 to 64 years (median 47). The majority were women (90%). Their time working in dementia care ranged from 1 to 37 years (median 10). The patients’ ages ranged from 57 to 100 years (median 82). The majority of the patients were women (68.5%).

The entropy-based analysis of the LPNs’ attitudes to patients suffering from dementia, measured using the SeD technique, revealed four dimensions (as shown in Figure 1). At the 16% level of association a complex picture of attitudes emerged (Figure 1). A total of 38 of the 57 pairs of adjectives occur in these four dimensions.

From the four dimensions that emerged, the first is interpreted as describing a combined ethical and aesthetic opinion of the patients. Adjectives interpreted as ethical included, for example, good-evil, liked-abhorred, cared for-rejected and mild-cruel. Descriptions of merely aesthetic and sensory impressions are, for example, represented by the adjectives beautiful-ugly, smooth-rough, clean-dirty and soft-hard.

The second dimension was interpreted as being the nurses’ opinion of the patients’ ability to experience. Joyful-sad, not suffering-suffering and satisfied-painful are examples of descriptions of the patients’ ability to experience.

Dimension three was interpreted as the LPNs’ opinion of the patients’ ability to understand, while dimension four was their opinion of the patients’ ability for social interaction. The opinion about the patients’ ability to understand was, for example, represented by the adjectives wise-stupid and knowledgeable-ignorant, while the ability for social interaction was represented by active-passive and alert-tired.

Table 1 shows the median, first and third quartiles and mode scores for all the paired adjectives. In the first dimension, ethical and aesthetic, 23 of the 24 pairs of adjectives had a median value between one and two, which points to a positive approach for this dimension. A more neutral approach can be seen for the dimensions of ability to experience and ability for social interaction (medians of 3 and 4). In the last dimension, ability to understand, the adjectives competent-incompetent and knowledgeable-ignorant point to a neutral approach (median 4), while for the remaining adjectives, a positive approach can be seen (median 2).
The purpose of this study was to identify a structure in LPNs’ attitudes towards people with dementia. The 181 LPNs were asked to report their attitudes towards 178 patients well known to them by using the SeD technique. The pairs of adjectives used in this study were the same as those used by Asplund and Norberg.23 The difference between the two studies was that, in this study, the assessed patients were well known

**Figure 1** Association between the variables that form the dimensions ethical/aesthetic, ability to experience, ability to understand and ability for social interaction

**Discussion**

The purpose of this study was to identify a structure in LPNs’ attitudes towards people with dementia. The 181 LPNs were asked to report their attitudes towards 178 patients well known to them by using the SeD technique. The pairs of adjectives used in this study were the same as those used by Asplund and Norberg.23 The difference between the two studies was that, in this study, the assessed patients were well known
to the carers, so they had a personal relationship, while the former study measured nurses’ attitudes towards a fictitious patient with severe dementia.

The results show that, on a positive to negative attitude continuum, the attitudes in this study towards people with dementia were positioned towards the positive to negative attitude continuum.

### Table 1
Median, first and third quartiles, and mode for the pairs of adjectives included in the cliques ethical/aesthetic, ability to experience, ability for social interaction and ability to understand

<table>
<thead>
<tr>
<th>Adjectives</th>
<th>Median</th>
<th>1st quartile</th>
<th>3rd quartile</th>
<th>Mode</th>
</tr>
</thead>
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<tr>
<td><strong>Ethical/aesthetic</strong></td>
<td></td>
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<tr>
<td>Reliable-unreliable</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Genuine-false</td>
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<td>1</td>
<td>3</td>
<td>1</td>
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<td>Innocent-guilty</td>
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<td>1</td>
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<td>1</td>
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<td>Calm-aggressive</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>1</td>
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<tr>
<td>Warm-cold</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>1</td>
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<tr>
<td>Good-evil</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Soft-hard</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>1</td>
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<tr>
<td>Nice-horrible</td>
<td>2</td>
<td>1</td>
<td>4</td>
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<tr>
<td>Mild-cruel</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Nice-nasty</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Safe-dangerous</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Graceful-disgusting</td>
<td>2</td>
<td>1</td>
<td>4</td>
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<tr>
<td>Clean-dirty</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>1</td>
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<tr>
<td>Fragrant-nasty-smelling</td>
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<td>1</td>
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<tr>
<td>Beautiful-ugly</td>
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<tr>
<td>Silky-harsh</td>
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<tr>
<td>Smooth-rough</td>
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<tr>
<td>Loved-hated</td>
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<td>1</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Liked-abhorred</td>
<td>1</td>
<td>1</td>
<td>3</td>
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<tr>
<td>Cared for-rejected</td>
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<td>4</td>
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<td>Valuable-valueless</td>
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<td>1</td>
<td>3</td>
<td>1</td>
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<td>Significant-insignificant</td>
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<td>1</td>
<td>3</td>
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<td>Soulful-soulless</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Light-dark</td>
<td>2</td>
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<td>4</td>
<td>1</td>
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<tr>
<td><strong>Ability to experience</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Happy-unhappy</td>
<td>4</td>
<td>2</td>
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<td>4</td>
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<td>Joyful-sad</td>
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<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Not suffering-suffering</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Satisfied-painful</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Harmonious-desperate</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Easy going-gloomy</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>1</td>
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<tr>
<td><strong>Ability for social interaction</strong></td>
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<tr>
<td>Brisk-apathetic</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Alert-tired</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>4</td>
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<tr>
<td>Awake-dull</td>
<td>3</td>
<td>1</td>
<td>5</td>
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<tr>
<td>Active-passive</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>7</td>
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<tr>
<td><strong>Ability to understand</strong></td>
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<tr>
<td>Competent-incompetent</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Knowledgeable-ignorant</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>4</td>
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<tr>
<td>Wise-stupid</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Experienced-inexperienced</td>
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<td>1</td>
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Nursing Ethics 2006 13 (3)
neutral end. This is a somewhat disparate result compared with earlier studies, which indicated more neutral and negative attitudes.\textsuperscript{19,22,23}

From the personhood perspective, this result appears to be important. The aim of person-centred care for people with dementia is to maintain the self, in spite of the reduction in cognitive skills.\textsuperscript{34} Sabat and Harré\textsuperscript{35} refer to the fact that a person’s self is largely influenced by the way in which others look upon and deal with that person. From this perspective, it is reasonable to assume that, with a more positive attitude towards people with dementia, the prerequisites for person-centred care will improve.

It is obvious that, from the four dimensions that emerged, the ethical and aesthetic dimension can be seen as a comprehensive dimension in the structure of LPNs’ attitudes towards people with dementia. This dimension is encircled by a complex pattern of ethical and aesthetic pairs of adjectives and the most positive attitude is also seen in this dimension. Adjective pairs that could be interpreted as ethical include good-evil, mild-cruel and significant-insignificant, while pairs regarded as aesthetic include soft-hard, clean-dirty and fragrant-nasty-smelling. The fact that ethical and aesthetic pairs of adjectives associate with one another indicates that these two factors are closely connected\textsuperscript{28} and that they influence the perception of a person with dementia. It seems logical that, in the caring situation, it should be difficult to separate these two factors and also that they influence each other.\textsuperscript{36} The interaction between a person with dementia and a caregiver can be seen as a helping relationship. This imposes ethical demands on caregivers\textsuperscript{37} because they have to do their best for a person with dementia, even if the person’s actions cause physical and emotional harm to the caregivers.

The results show that positive attitudes, in this dimension, are important for the well-being of and the quality of care given to a person with dementia\textsuperscript{19} because positive attitudes may lead to behaviours that enhance these patients’ satisfaction and promote their health and psychosocial well-being.\textsuperscript{38}

For the dimension of ability to experience, represented, for example, by the adjective pairs happy-unhappy, not suffering-suffering and harmonious-desperate, LPNs’ attitudes fell in the neutral area. For the dimension of ability to understand, the attitudes fell in both the neutral and positive areas, where neutral adjective pairs were represented, for example, by competent-incompetent and knowledgeable-ignorant, while positive adjective pairs were, for example, represented by wise-stupid and experienced-inexperienced.

The fact that attitudes fell in the neutral area for the dimension of ability to experience, and in both the neutral and positive areas for the dimension of ability to understand, can be explained by the fact that people suffering from dementia experience both a loss of specific functions and difficulty in achieving wholeness and meaning in life,\textsuperscript{3} and also that the lack of feedback from people with dementia leads to uncertainty about their wishes.\textsuperscript{39} This will affect the nurse–patient relationship and also the opportunity for mutual understanding, that is, understanding and interpreting the patients’ experiences, behaviour, wishes and needs.\textsuperscript{2} One prerequisite for interaction with others is sensitivity to each other’s experiences.\textsuperscript{40} Berg \textit{et al.}\textsuperscript{41} explain that nurses use knowledge of various factors to obtain an understanding of people with dementia, but this is not easy to achieve because people with dementia have difficulty in communicating their experiences.
In this study, we have investigated only LPNs’ attitudes, not the reasons for these attitudes, but it is justifiable to assume that one factor that influences the outcome in these dimensions is the fluctuating mood of people with dementia. 42

It is crucial to consider these LPNs’ opinion of people with dementia and their ability to experience and understand. This highlights the fact that these two types of problem are not separate but interdependent, owing to the obstacles to communication in people with dementia,42 which caused these nurses to feel uncertain about the patients’ ability to experience and understand.

For the dimension of ability for social interaction, the LPNs’ attitudes fell in the neutral area. Adjective pairs that were represented here and can be interpreted as ability for social interaction are brisk-apathetic, alert-tired, awake-dull and active-passive. This result seems reasonable because of the difficulties nurses may experience when it comes to forming meaningful relationships with people with dementia owing to their communication problems and different behaviours. However, one interpretation of this result is that a neutral attitude to people with dementia and their ability for social interaction can jeopardize their well-being. The well-being of people with dementia is largely dependent on social interactions43 and, when nurses’ attitudes are in the neutral area, it can be assumed that there is such a risk. Another more speculative interpretation is that nurses may feel they have less self-efficacy in the contact, which will result in less contact or avoiding contact with people with dementia. Kahana et al. state that ‘when staff feelings of competence and effectiveness affect their evaluations of elderly clients, they may be likely to avoid contact or initiate fewer therapeutic interventions with elderly clients when they feel ineffective’ (p. 49).17 According to this it is important to take into account what Sweeting and Gilhooly argue, which is that it is rather the behaviours than the beliefs of the caregiver that are of significance for the well-being of or quality of care given to people with dementia.

In conclusion, this study shows a positive to neutral attitude to people with dementia in overall terms. This result differs from that obtained in the study by Asplund and Norberg,23 who found generally negative attitudes when using the same technique. This difference may depend on the fact that the earlier study was conducted using a fictitious person with severe dementia to measure the nurses’ attitudes. One interpretation of this result is that it indicates that there is a difference between judging a scenario and a person in one’s care. Another interpretation is that the personhood approach is now gaining in strength.

Apart from this, it is important to take account of the fact that, in this study, two of the dimensions (ability to experience and ability for social interaction) showed a neutral attitude. The danger of a neutral attitude is that nurses may reduce their interaction and their contact with the unpleasant or emotionally taxing aspects38 of people with dementia because of the obstacles that are a barrier to communication. Studies have shown45,46 that nurses interact more frequently with patients with whom they are able to communicate than with those who have communication problems. However, the most positive attitude was shown in the ethical and aesthetic dimension. According to Norberg,3 this can be interpreted as indicating that, when nurses have a positive ethical and aesthetic attitude towards people with dementia, they meet these persons in their own world and regard people with dementia as significant and their existence as important, which can in turn make nurses’ view themselves as important. This indicates that, when carers perceive patients as unique and valuable persons, they
experience their caring as a very important task and, thus, they must be important people themselves.

To further enhance our knowledge of the influence of nurses’ attitudes towards people with dementia, it would be interesting to investigate whether functional ability and the degree of dementia affect nurses’ attitudes.

Implication for nursing practice

It is important for nursing practice to take into account the positive outcome of the ethical/aesthetic dimension, because this dimension can be seen as underlying the possibilities for good dementia care. The neutral attitudes (which can partly be seen in the other dimensions) can hazard the possibilities for good dementia care. It is important to take into account what causes neutral and negative attitudes, such as communication obstacles among people with dementia. To make nursing staff aware of how their attitudes influence their actions in relation to the people with dementia it is important to focus on nursing practice and nurse education.

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Nurses’ attitudes towards people with dementia

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