INTEGRITY PROMOTING CARE
OF DEMENTED PATIENTS

Mona Kihlgren

Umeå 1992
INTEGRITY PROMOTING CARE OF DEMENTED PATIENTS

AKADEMISK AVHANDLING
som med vederbörligt tillstånd av Rektorsämbetet vid Umeå Universitet
för avläggande av doktorsexamen i medicinsk vetenskap kommer
offentligen att försvaras i hörsal G, Humanisthuset, Universitetet Umeå,
onsdagen den 18 november 1992 kl 09.00

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Integrity promoting care of demented patients.
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ABSTRACT
The purpose of the thesis was to investigate if integrity promoting care improves functions in demented patients over time. The Erikson (1982) theory of "eight stages of man" was used as a basis for training of staff in a three-month intervention study (I-VI) at a nursing home ward. A collective living unit where staff had had support in the performance of the delivery of care was also evaluated and compared with a nursing home in a long-term study (VII). Patients, relatives, staff, and the environments were investigated. Cerebrospinal fluid concentrations of somatostatin increased, and reduction of distractability, anxiety and confusion was seen in the intervention group (I) in contrast to controls. In the collective living group (VII) EEG activities indicated a reduction of supposed dementia induced changes. Better motor and social ability, some improved intellectual ability, more alertness and reduced signs of depression were seen (I, II, VII). Patients expressed more autonomy (IV, VII) and initiatives (II-VII) and showed a lot of competence (V) in conversations. Five patients (V) showed patterns of behaviour which seemed to reflect life-long characteristics in spite of their severe dementia. The improvement in the patients' functions can be attributed to the physical environment and the integrity promoting care, since the medical treatment of the patients remained unchanged. In the thesis medical, psychological, and nursing sciences were connected in a complementary process. The results were congruent, and indicate that patients in the care of staff who had had training and support, declined less than controls.

Key words: Dementia, nursing home, collective living, staff training, the E. H. Erikson theory, integrity, interaction, hermeneutics, GBS - scale, somatostatin, EEG.
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Umeå 1992
To the Caregivers
Ack käraste
snart är mörker här
det stora oundvikliga mörkret
Vi måste med all vår styrka och ömhet
beskydda glädjens lilla snigel
som upplyser vår vardag än

Maria Wine
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Key words: Dementia, nursing home, collective living, staff training, the E. H. Erikson theory, integrity, interaction, hermeneutics, GBS - scale, somatostatin, EEG.
This thesis is based on the following papers, which will be referred to in the text by their Roman numerals:


VII. Kihlgren M., Bråne G., Karlsson I., Kuremyr D., Leissner P. & Norberg A. Long-term influences on demented patients in different caring milieus, a collective living unit and a nursing home. A descriptive study. Dementia, accepted for publication.
INTRODUCTION

Theoretical frame

It is difficult to form one's daily life and make it function without an experience of wholeness and meaning. It does not matter if we can understand what is going on and even have a feeling of being able to manage it, if that experience is lost (cf. Frankl 1969, Antonovsky 1988).

E. H. Erikson (1950, 1964, 1976, 1982), J. M. Erikson (1988) and the Erikson couple together (1981, 1986) describe the experience of wholeness and meaning in their theory of "eight stages of man". The theory accounts for the process of the psychosocial development of human beings extending from infancy, through adulthood, and into old age. According to the theory each stage is to be seen in relation to the previous and the coming stages and is described as a crisis, when a synthesis is produced between two counteracting poles. This means that at each age one crisis is phase-specific and the others are latent. In old age a person is normally in his last (eighth) stage of psychosocial development and has to look back on his life and forward towards death. As one alternative he can accept what has happened and anticipate what will happen, and as another alternative be filled with grief and despair. The positive solution leading to an experience of wholeness and meaning is named integrity. The earlier phase-specific stages of life balance "trust versus mistrust", "autonomy versus shame and doubt", "initiative versus guilt", "industry versus inferiority", "identity versus identity confusion", "intimacy versus isolation", and "generativity versus stagnation". A prerequisite for a positive solution of the crises "integrity versus despair" is that the preceding crises can be resolved at this present stage of development (Figure 1). The Erikson theory describes a "life-cycle".
The resolution of crises during a person's life-cycle leaves its mark on the developing person, a strength (virtue) or a weakness (antipathic), depending on whether the solution was positive or negative. Each solution contributes to the totally formed personality (cf. Berzonsky 1984, p. 447). From the first phase-specific crisis during infancy to the last in old age the strengths/weaknesses are named "hope versus withdrawal", "will versus compulsion", "purpose versus inhibition", "competence versus inertia", "fidelity versus repudiation", "love versus exclusivity", "care versus reactivity", and "wisdom versus disdain" (Figure 1). Thus the strengths/weaknesses emerge step by step during life, and in vital and mutual relationship with other maturity stages in the person like psychosexual and cognitive stages. The strengths/weaknesses are named qualities in the person by E. H. Erikson (1964). He describes them in everyday terms and stresses that studies of daily life where these qualities appear are indispensable when assessing the processes that human beings are involved in.

Figure 1. The life-cycle illustrated by means of the Erikson theory.
From the theory follows that positive qualities emerge from positive solutions. As human beings we need confidence in the future, we must have trust in the people around us and the environment, for this hope is essential. Our setting has to be allowing, or feelings of compulsion and inhibition will emerge. Experiences of "I dare" and "I am allowed to" are, however, not enough. We need to feel "I can". Senses of "I am respected", "I am allowed space to move" are necessary for not developing repudiation. We need to experience "I enjoy", or we become exclusive, and we need to feel "I am useful", "I give". What happens around us must be coherent and give a sense of meaning. The last stage is seen as the stage of wisdom and reconciliation or disdain.

The experience of "I am allowed to, want to, and can" etc is, however, not sufficient in every situation. The opposite has to work as a mental brake since we are not allowed to wish, or to do, what would hurt other human beings or ourselves. The psychosocial process also involves thinking of and caring also for other human beings. We feel empathy for other persons and create moral rules for our various actions, our "ethos" (Erikson 1982, pp. 92-103). In this way our personality is formed. Nothing is, however, constant around us, so we continuously reconsider our values and attitudes (our crises solutions).

The demented patient

A dementia disease is a progressive degenerative disorder and is recognized by disturbed cognitive, emotional, and sensomotor functions (American Psychiatric Association 1987, Fischer et al. 1990, Wallin et al. 1991). Today the percentage of older people increases in most societies. Since there is a positive correlation between age and dementia illness, the number of people with the disease is expected to be multiplied (cf. Sandman et al. 1988, Lake et al. 1991, Nyth 1992). From demographic data one can suppose that the number of demented persons in Sweden will increase to 90 - 95.000 in the year 2000 (from 75.000 in 1988) (Wimo 1992). Society's costs for dementia diseases are considerable (Blass 1990). Wimo and co-workers (1991) found that the costs for the Municipality and the County Council were lower for care in the collective living units (see p. 14) studied, compared with nursing home care. The burden on those caring for a family member with dementia leads to psychological, physical and social morbidity and financial strain (Brodaty & Peters 1991). Pharmacological interventions to eliminate or ease the dementia handicap have until to-day achieved marginal success only. Therefore the care required by the patients and their families is mainly nursing (cf. Maas & Buckwalter 1991).
From early to advanced stages of the dementia, verbal (Obler & Albert 1985, Bayles & Kaszniak 1987, Ehrlich 1990) and nonverbal (Farran & Keane-Hagerty 1989, Asplund et al. 1991a, Asplund et al. accepted) communication abilities, performance of tasks, and bowel and bladder control decline (Reisberg 1986, Maas & Buckwalter 1991). Almost every patient will finally exhibit severe intellectual and motor disabilities and thus be unable to manage the daily activities without assistance (Gilleard 1984, Sandman et al. 1988, 1990). The patient becomes more and more dependent on the milieu (caregivers and physical environment), and at the same time his ability to interpret his milieu deteriorates (Reisberg 1986). Maas and Buckwalter (1991) reported that incontinence was the most serious problem for the families, together with the communication problems, walking at night, suspiciousness and catastrophic reactions. Personality changes are regarded as common (American Psychiatric Association 1987) and are claimed to be a consistent part of the clinical syndrome (cf. Johanson et al 1990). They occur early in the disease (Rubin et al. 1987). In retrospective interviews with family members Shoemaker (1987), however, found continuity of comprehensible behaviour in patients with Alzheimer's disease. Although behaviour and cognitive function varied after the onset of the disease, behaviour was not as purposeless as expected.

Theory applied to the demented patient

The E. H. and J. M. Erikson theory has previously been applied to demented patients. Existential dimensions of eating in Alzheimer patients have been analysed by means of the theory by Norberg and coworkers (1981), Norberg and Sandman (1988), and by Hallberg and coworkers (1990). Ekman and associates (accepted) applied the theory when analysing communication in the care of bilingual demented patients. The theory has also been applied to other areas, for example career (Munley 1977), sleep disturbances in elderly people (Wagner et al. 1983) and the development of children with heart disease (Östman 1989). Axelsson and coworkers (1986, 1988) described the importance of the relationship between the stroke patient and his caregiver during training in eating, and the Parkinsonian patient's eating problems have been analysed, with reference to Erikson, by Norberg and associates (1987).

According to the Erikson theory (1964, 1982, 1988) a basic prerequisite for a positive development of the psychosocial process is that we can remember our own history. To the extent that our history becomes diffuse to us, our process of maturation will be hindered.
On the basis of the above description of the demented patient, it may be possible to describe a person's own subjective experience of the gradual onset of dementia. As we grow more and more demented, we may still for a time understand what is going to happen. But this is gradually diminished and will eventually disappear. We become afraid and suspicious. We can be deluded, as we do not remember, and can hurt ourselves or other persons when we lose our memory. We understand that in the future we will not be able to share the lives of our families, of our grand-children, nor to take care of them. We understand that we are going to cause trouble and become a nuisance, become expensive, and that we will die prematurely. We will appear ugly in somebody's eyes, and perhaps make others feel repulsion. Our decreasing communicative ability causes misunderstandings and negative emotional reactions. A feeling of a future inability to communicate needs and wishes emerges, the agony increases, and we become aggressive (Why should this happen to me? Why can't anybody help me? Why am I neglected?). Some of us get depressed. We and our relatives end up in a process of grief and agony. For some time we develop strategies, but gradually we perceive that they do not help. Our judgement deteriorates as well as our physical capacity. Passiveness, self-pity, selfishness, and even withdrawal are the results.

Wholeness and meaning (integrity) for the demented patients are supposed to be a question of the sense of coherence in the actual situation and in what happens. The caregivers mirror the patients' behaviour and the reactions are reflected back. In order to bring about an experience of integrity in the demented patients' fragmentary world (cf. Hallberg 1990) it seems urgent for caregivers to promote the positive poles of the Erikson crises, when they interact with the patients in different caring situations. In this thesis this kind of care is labelled integrity promoting care.

**Milieu for the demented patient**

Impairment in the demented patients of sensory, perceptual and cognitive processes affect their overall ability to interact successfully with the milieu (Maas & Buckwalter 1991, Asplund et al. 1991a, Brännström et al. 1991a). Much care has been based on the notion that the demented patients need increased environmental clarity to compensate for cognitive and functional deficiencies, but most interventions from this perspective have not been successful (Lawton 1980). For the psychological wellbeing of older people, maintenance, support and an adjusted surrounding are specifically suggested

Collective living units for six to eight demented residents in each have been introduced in Sweden during the last decade (Annerstedt 1987, Alfredsson 1989, Karlsson & Paulsson 1991, Wimo et al. 1991). From the United States bigger special units (SU) for residents suffering from Alzheimer's disease are described. No significant changes in cognitive or functional abilities over time were found by Maas (1988) or by Mattew and associates (1988) in SU-patients. Greene and coworkers (1985) reported more negative behaviour like hostility, agitation, incontinence, and combativeness in patients living in traditional units compared with patients in SU-units. From Reduced Stimulation Units Cleary and coworkers (1988) reported significant improvements in the performance of activities of daily living. No difference was seen in emotional and mental abilities. Hall and coworkers (1986) reported that patients were prescribed less tranquillizers three months after they were moved to a Low Stimulus Unit. Improvements in SU-patients' mental, emotional and functional status, and social abilities (Rovner et al. 1990) have been reported, as well as reductions in urinary incontinence and combativeness (US Congress, OTA Report, 1987). Improved social ability has also been reported by Alfredsson (1989). Wimo (1992) studied "day care" and collective living units as alternatives for demented patients in comparison with nursing home care. He found that these new caring alternatives offered activation, supervision and a more efficient and individualized care. The effects on the quality of life were positive for both patients and relatives, while there were few effects on the patients' ADL- and cognitive functions. These care alternatives seemed more cost-effective as institutionalization can be postponed. Family members' satisfaction has also been reported by Cleary and co-workers (1988) concerning SUs and by Alfredsson (1989) concerning collective living units. An adjusted milieu seems to have an important therapeutic potential for elderly demented patients (cf. Minde et al. 1990).
AIM OF THE THESIS

The purpose of the present study was to investigate if integrity promoting care improves functions in demented patients, and to describe changes over time in patients, the care delivered, routines and the environment.

METHODS

The work was organized in two projects: a three-month intervention study in dementia care at a nursing home ward (project 1, papers I-VI), and studies of long-term influences of the milieu on demented patients in a collective living unit (project 2, paper VII).

Project 1 (I-VI)

Design

A project was organized with an intervention ward (I-ward) and a control ward (C-ward) at different nursing homes within the Örebro County Council in the middle of Sweden. The C-ward was included to reduce effects of possible seasonal variations in neurobiological parameters (I) (Karlsson et al. 1985, 1988). This approach facilitated also a more comprehensive qualitative analysis of patients'/caregivers' interaction over time (II, III). Data were collected before and after training of the I-ward staff in integrity promoting care including a three-month intervention period. The general outline of the study is shown in Figure 2.

Wards and staff

The I-ward housed 28 patients and was staffed per bed with .08 registered nurse (RN), .13 enrolled nurse and .48 nursing aid (in total: .69, exclusive of night personnel). Corresponding figures for the C-ward were 30 patients, .08 RN, .15 enrolled nurse, and .50 nursing aid (in total: .73). (For a description of the training of staff in Sweden see Karlsson 1988, Åström 1986). A task assignment system was applied in both wards except for daytime on working days, when the staff were organized in two teams. Each team consisted of three nurses aids and one enrolled nurse, who was the team leader. A registered nurse served as a coordinator of the care of the ward.
Figure 2. Design of projekt 1 (I-VI)
The staff who participated in video-recordings of morning care sessions, one enrolled nurse and four nursing aids on each ward, usually helped the investigated patients with their morning care (Table 1) (two men and three women in the I-ward, in studies III, IV and V, and one man and four women in the C-ward, in study III).

The staff who participated in video-recorded social activities (II) were those who worked the days when video-recording of morning care sessions took place. Day and night staff on duty during tape-recording of oral reports on both wards participated in study VI.

Table 1. Characteristics of patients and caregivers (I-VI), age and number of years in a geriatric institution, expressed as means ± standard deviations (SD)

<table>
<thead>
<tr>
<th>Investigations</th>
<th>I-ward</th>
<th>C-ward</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Age (mean)</td>
</tr>
<tr>
<td>Patients</td>
<td></td>
<td>(SD)</td>
</tr>
<tr>
<td>Neurochemical assessments</td>
<td>13</td>
<td>83.5 (±7.5)</td>
</tr>
<tr>
<td>Psychological ratings</td>
<td>16</td>
<td>82.6 (±6.4)</td>
</tr>
<tr>
<td>Psychometric tests</td>
<td>9</td>
<td>33.5 (±8.1)</td>
</tr>
<tr>
<td>Video-recorded -social activities</td>
<td>22</td>
<td>83.5 (±7.5)</td>
</tr>
<tr>
<td>-morning care sessions</td>
<td>5</td>
<td>82.6 (±6.4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32.4 (±4.7)</td>
</tr>
</tbody>
</table>

Patients

Five patients of the I-ward and seven of the C-ward were excluded from the study for medical reasons or for lack of consent from the families to the patients' participation in the neurochemical part of the study. Five patients on the I-ward and four on the C-ward moved or died during the period. New
patients, who arrived at the wards, were not included in the study. Characteristics of the patients are shown in Table 1. At the I-ward seven of the patients were rated as mildly to moderately demented and 15 patients as severely demented according to the Mini Mental State Examination (MMSE) (Folstein et al. 1975, Hughes et al. 1982). Corresponding figures at the C-ward were five and 18 respectively. Most of the patients of both wards were severely disabled in their ADL-functions (levels E-G), as assessed by means of the Katz' ADL-index (Katz & Akpom 1976). The psycho-pharmacological treatment was unaltered during the study period.

The patients of the I-ward included in studies III, IV, and V were severely demented, MMSE ranked between 3 and 10. They were severely disabled in their ADL-function (levels E-G). For the C-ward patients in study III the MMSE was 0-6 and the ADL-function E-G.

**Staff training in integrity promoting care**

*Course week.* All staff members of the I-ward were given one week of training aimed at promoting integrity in the demented patients according to an application of the Erikson (1982) theory to dementia care (cf. Norberg & Sandman 1988). Different topics were covered such as normal and pathological aging, confusion and dementia diseases, human relationship, communication, interaction, environment, human territory and integrity. The intention was that the patients should have a feeling of satisfaction and comfort in the caring activity (e.g. should be clean, should have had enough to eat) as well as have an experience of wholeness and meaning (integrity). The training also aimed at teaching the caregivers to increase the clarity of their communicative cues, to be attentive towards the patients and respond in a way that compensated for the patients' disabilities (cf. Barnard 1981, Athlin & Norberg 1987). The staff were also instructed about the importance of a calm and home-like environment (Sandman 1986) in order to make it easier for the patients to interpret their surrounding. The staff made a group decision about how to change the care in accordance with the training.

*A three-month intervention period* followed, when the staff were encouraged to implement the changes in the daily nursing care. The author visited the ward three to four days a week and a research assistant stayed at the ward throughout the intervention period. The staff were given questions about the patients' history, during the course week. As this indicated a lack of knowledge, the staff were encouraged during the intervention to interview the
patients' relatives. This was done and for each patient a summary was written which was accessible for all staff of the ward. Video-recordings of patients and staff from the daily work before the training and from lectures during the course week were used in discussions of the delivery of care.

**Project 2 (VII)**

**Design**

A collective living unit, which had opened six months before the study started, was compared with a nursing home in another town within the Örebro County. The study included patients, relatives, staff and the environment. The different types of data collected every six to twelve months are shown in Figure 3.

<table>
<thead>
<tr>
<th>Patients</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>T5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med. assessment</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Psychol. assessment</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Neurophys. assessment</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>ADL-index</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>MDDA-scale</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
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</table>

<table>
<thead>
<tr>
<th>Staff</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Interviews about</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>patients and their living</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<table>
<thead>
<tr>
<th>Relatives</th>
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<tr>
<td>Interviews about</td>
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<td></td>
</tr>
<tr>
<td>patients and their living</td>
<td>X</td>
<td>X</td>
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<table>
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<tr>
<th>Phys. environment</th>
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<tr>
<td></td>
<td>X</td>
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<td>X</td>
</tr>
</tbody>
</table>

**Figure 3.** Collected data at the collective living unit and the nursing home, time 1 (T1) to time 4 (T4) (April 1986 - February 1988) and at time 5 (T5) (May 1988)

**Collective living unit and staff**

The collective living unit constituted the whole top floor of an apartment house and accommodated six women in separate apartments of their own. An additional apartment was used for common activities and meals, and for staff. The patients were encouraged to take part in entertainments, excursions and the ordinary daily chores such as cooking and baking. Cleaning and washing the
patients' clothes were also part of the tasks of the staff (0.83 per patient, excluding night staff). They were trained in social services (home helpers). The administrative head of the staff, a social secretary, had her office in the neighbourhood and had only sporadic contacts with the unit.

Nursing home and staff

The nursing home had four wards with 28 patients in each. Nearly all patients suffered from a somatic handicap, and for about half of the patients this was combined with dementia. The wards were staffed with 0.71 staff per patient excluding night-staff. On each ward they were organized in two teams during day-time on working days, with an enrolled nurse as the team leader. A registered nurse served as a coordinator of the care of all patients of a ward. The activities for the patients, excursions etc, were few. Physiotherapists and occupational therapists participated in the treatment and activation of the patients.

Patients

Five patients of six (one had afasia but was not demented) from the collective living unit (CL-group) were selected for the study, and five patients from the four nursing home wards (NH-group) constituted the control group (Table 2). They were matched for dementia, sex, age and social background. The patients were all diagnosed according to the DSM III (American Psychiatric Association 1983) with Alzheimer's disease (AD/SDAT) diagnosed as primary degenerative dementia and the term vascular dementia (VD) used for dementia of supposed vascular origin (DSM III term multi-infarct dementia). The patients' medication was monitored during the study. None of them was under sedation enough to influence daily life. One patient in the collective living unit moved before the study was finished, which reduced the number of subjects in some of the investigations.
Table 2. Characteristics of patients at the start of the study (VII)

<table>
<thead>
<tr>
<th>Patient</th>
<th>Diagnosis</th>
<th>Age range</th>
<th>Months in CL-unit/ nurs home</th>
<th>MMSE</th>
<th>ADL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient 1</td>
<td>AD/SDAT</td>
<td>76-80</td>
<td>6*</td>
<td>0</td>
<td>E</td>
</tr>
<tr>
<td>Patient 2</td>
<td>AD/SDAT</td>
<td>81-85</td>
<td>6</td>
<td>9</td>
<td>E</td>
</tr>
<tr>
<td>Patient 3</td>
<td>VD</td>
<td>81-85</td>
<td>6</td>
<td>12</td>
<td>C</td>
</tr>
<tr>
<td>Patient 4</td>
<td>AD/SDAT</td>
<td>86-90</td>
<td>6**</td>
<td>13</td>
<td>A</td>
</tr>
<tr>
<td>Patient 5</td>
<td>AD/SDAT</td>
<td>81-85</td>
<td>6</td>
<td>0</td>
<td>C</td>
</tr>
</tbody>
</table>

**NH-group**

<table>
<thead>
<tr>
<th>Patient</th>
<th>Diagnosis</th>
<th>Age range</th>
<th>Months in CL-unit/ nurs home</th>
<th>MMSE</th>
<th>ADL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient 6</td>
<td>AD/SDAT</td>
<td>86-90</td>
<td>6</td>
<td>11</td>
<td>E</td>
</tr>
<tr>
<td>Patient 7</td>
<td>AD/SDAT</td>
<td>81-85</td>
<td>20</td>
<td>0</td>
<td>C</td>
</tr>
<tr>
<td>Patient 8</td>
<td>AD/SDAT</td>
<td>86-90</td>
<td>2</td>
<td>13</td>
<td>B</td>
</tr>
<tr>
<td>Patient 9</td>
<td>AD/SDAT</td>
<td>81-85</td>
<td>6</td>
<td>12</td>
<td>D</td>
</tr>
<tr>
<td>Patient 10</td>
<td>VD</td>
<td>76-80</td>
<td>32</td>
<td>11</td>
<td>E</td>
</tr>
</tbody>
</table>

*Before the collective living: 6 months in a home for the aged

**Before the collective living: 2 months in a hospital

**Staff training**

Before the collective living unit opened, all staff members went through a one-month training program about dementia diseases, home care, communication and group relations. The training also included visits to other collective living units. The research team was not involved in this training. During the study the team made observations of the work and had regular discussions with the staff about integrity promoting care. The staff got feedback for the care delivered and support from the team as well as from the collective living managers.

**Projects 1 and 2 (I-VII)**

**Instruments previously established**

Symptoms and functional performance of the patients were assessed by means of the Katz' ADL index (Katz and Akpom 1976) (II-V, VII), the Mini Mental State Examination (MMSE) (Folstein et al. 1975, Hughes et al. 1982) (I-V, VII), the Multi-Dimensional Dementia Assessment scale (MDDA-scale, Sandman et al. 1988) (VII), the Gottfries-Gottfries scale (Gottfries & Gottfries 1968) (VII), the Gottfries-Bråne-Steen scale (GBS-scale) (Gottfries et al. 1982)
"Similarities" and "Digit Span" of the WAIS-battery (Wechsler 1955) (I, VII) were also used and the patients were asked to draw a three-dimensional figure (a cube). The BFMÄ-scale (Svensson 1984) was used for assessing the environment of wards and collective living (VII).

The MMSE is an instrument measuring different cognitive functions: orientation to time and place, registration, attention/calculation, recall, copy design and language. An MMSE score is obtained by summing up the points to a total score of 0-30. A cut-off value of 23/24 is recommended, where 0-23 indicates disturbance of cognitive functions.

The MDDA-scale measures orientation ability, motor functions, vision, hearing, speech, ADL-functions, behavioural disturbances, psychiatric symptoms and work load. It allows a construction of three subsets of scores, i.e. a person-time-place orientation score (0-14 points), a behavioural score based on 26 behavioural symptoms (0-78 points) and a psychiatric score based on 14 psychiatric symptoms (0-42 points). A high score for behavioural or psychiatric symptoms indicates a higher prevalence of these symptoms. In the orientation part a lower score indicates a higher prevalence.

The Gottfries-Gottfries rating scale measures motor and intellectual functions and emotional disturbances in dementia.

The GBS-scale is constructed for rating dementia syndromes. It is divided into three subscales measuring motor, intellectual and emotional functions. Different symptoms characteristic of dementia are also measured. The scale measures degree of dementia and profiles of dementia syndromes. It can be used in evaluating effects of treatment, but not as a diagnostic instrument. Seven scale steps are used to score impairment and symptoms. 0, 2, 4 and 6 are clearly defined. 0-<2 is assumed to mean normal function, 2-<4 mild to moderate dysfunction and 4-6 severe dysfunction.

The DD-scale is an observer's rating scale of dementia patients' depression disorders. The scale contains 22 items scored 0-6 where 0-1 represents normal function or absence of symptoms and 6 maximum disturbance.

The BFMÄ-scale is an orientation-scale for geriatric patients' environment. It consists of 15 subscales which measure different aspects of the physical environment: Integration in society (A), outdoor accessibility (B), outdoor facilities (C), entrance (D), indoor accessibility (E), orientation (F), light and contrast on walls and floors (G), security (H), integrity (I), homeliness (J), ADL-possibilities (K), ward/floor activities (L), facility activities (M), administration and care (N), and kitchen (P) (Svensson 1984). The subscales can be used for a special institution systematically described and compared with others. A higher point means a better institution in terms of what the subscales measure.
Instruments constructed for the study

Some instruments were constructed for analysis of the video-recordings and the oral reports, for investigation of the staff opinion and for interviews of relatives.

The video-recorded morning care sessions were analysed partly using a coding scheme (III) composed on the basis of the training of the I-ward staff and the video-recordings, so that events with apparent variation were noted. The coding scheme contained 93 items mainly concerning whether an action occurred or not. Some items were quantitatively graded. The items concerned eye, verbal and body contact between the patient and caregiver; the caregiver's attempt to orientate the patient; the patient's opportunities to participate in decisions and actions as well as to take initiatives; the patient's reactions; actions aimed at strengthening the patient's experience of identity; the caregiver's behaviour in relation to the patient's human territory; and power-relationship.

A multiple-choice questionnaire was drawn up and given to the staff of the I-ward and the C-ward. It contained 118 questions, two of which related to oral reports are described in study VI. Other questions are reported by Ragneskog et al. (accepted). The whole questionnaire included six sections: demographic information, organization, working conditions, knowledge of and opinions about demented patients and caring actions related to demented patients. For most of the items the respondents could express their attitudes and opinions on a four-point scale, and for some items in an unrestricted way.

For the analysis of the oral reports (VI) a scheme was constructed enclosing four main groups for the messages in the reports: A/ components of nursing care described by Virginia Henderson (1969), B/ psychological aspects of care, not described by Henderson, C/ medical content, and D/ the feelings and attitudes towards the patients and the work expressed by the staff. Those four groups for the content of the reports formed the vertical side of the scheme, while the horizontal side divided the messages into the steps of the nursing process (cf. Ehnfors et al. 1991).

Semi-structured guides were constructed and used for interviewing relatives and staff in study VII, for their assessments of the living environment and the changes of the patients.
Collection and analyses of material

An overview of collection and analyses of material is given in table 3. Some material and results not yet published will be reported.

Table 3. Overview of collected data in the papers, used statistical analyses and employment of co-assessment techniques

<table>
<thead>
<tr>
<th>Paper</th>
<th>Statistical methods</th>
<th>Co-assessment techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Neurochemical</strong>&lt;br&gt; (CSF) somatostatin, AVP, CRF</td>
<td>I</td>
<td>non-parametric analysis of covariance,</td>
</tr>
<tr>
<td><strong>Neurophysiol.</strong>&lt;br&gt; EEG, VEP</td>
<td>VII</td>
<td>Student's $t$-test, Pearson's corr. coeff.</td>
</tr>
<tr>
<td><strong>Psychological</strong>&lt;br&gt; GBS, DD</td>
<td>I, VII</td>
<td>non-parametric analysis of covariance,</td>
</tr>
<tr>
<td><strong>Psychometric</strong>&lt;br&gt; similarities, digit span, drawing a cube</td>
<td>I, VII</td>
<td>non-parametric analysis of covariance,</td>
</tr>
<tr>
<td><strong>Video-rec.</strong>&lt;br&gt; soc. act. morn. care</td>
<td>II</td>
<td>frequency distributions</td>
</tr>
<tr>
<td></td>
<td>III-V</td>
<td>yes</td>
</tr>
<tr>
<td><strong>Tape-rec.</strong>&lt;br&gt; interviews -relatives -staff oral reports</td>
<td>VII</td>
<td>frequency distributions</td>
</tr>
<tr>
<td></td>
<td>VI</td>
<td>yes</td>
</tr>
<tr>
<td><strong>Questionnaire</strong></td>
<td>VI</td>
<td>Fisher's exact test, Wilcoxon, chi-square test</td>
</tr>
<tr>
<td><strong>Observations</strong>&lt;br&gt; participant (project 1) BFMA</td>
<td>unpubl.</td>
<td></td>
</tr>
<tr>
<td><strong>Weight</strong>&lt;br&gt; (project 1)</td>
<td>unpubl.</td>
<td>Student's $t$-test</td>
</tr>
<tr>
<td></td>
<td>VII</td>
<td>yes</td>
</tr>
</tbody>
</table>
Neurochemical assessments (I); cerebrospinal fluid (CSF), was obtained by means of a lumbar puncture of the patients (Table 1, p. 17) for the analysis of somatostatin, arginine-vasopressin (AVP) and corticotrophine releasing factor (CRF). The chemical analysis is described by Widerlöv et al. (1989). A non-parametric analysis of covariance were used for testing statistical differences. Psychological ratings and psychometric tests were made by the same psychologist in all the measurements of the patients in paper I (Table 1 p. 17) and paper VII (Table 2 p. 21). For the GBS scores in study I a non-parametric analysis of covariance was used to evaluate group differences in item scores after the training, with the corresponding baseline score as the covariant (Bradley 1968). Neurophysiological measurements, EEG/VEP (VII), were made with ordinary routines, instruments and methods. The mean frequency and energy of the background (alpha) activity and the mean energy of the slow wave (delta) activity were determined. The quotient between the energy in the frequency spectrum of the background activity and the energy of the delta activity was multiplied by the mean frequency of the background activity. This estimation is referred to as the alpha/delta ratio. The statistical analyses of the EEG parameter and the GBS ratings in study VII were made with Student's t-test on the individual differences between the first and last measurements. The logarithm of the alpha/delta ratio (log alpha/delta) was used to create a normal distributed parameter for the statistical analyses. Pearson's correlation coefficient was used for correlation analyses.

The patients of the I-ward and C-ward were weighed after breakfast and morning care at the start of the study (unpublished material, see findings p. 28) and after the intervention (after four months). The statistical analysis was made with Student's t-test on the individual differences between the first and second measurements.

On both the I-ward and the C-ward non-randomly selected social activities (mainly coffee and music sessions) were video-recorded during about 12 hs in total (II) (Table 1 p. 17). The method used led to the camera catching several simultaneous activities, which increased the number of interactions that could be analysed. The video-recordings were copied and sessions on the wards from before and after the training were mixed in a non-systematic way. The video-recordings were watched and descriptions of episodes were written down and coded by one researcher. Part of the material were watched, independently coded and categorized by three researchers (cf. Glaser 1978). Notes and codes about patients' and caregivers' actions and reactions were compared. A second analysis based on an interaction model
(Athlin & Norberg 1987) was also carried out. The written episodes were interpreted by two of the researchers and compared regarding the interacting parties' clarity of cues, sensitivity and synchronization.

The video-recordings of *morning care sessions* (n=99) (Table 1 p. 17) were copied. Recordings from before and after the training, as well as the material from both wards, were mixed in a non-systematic way. For study III each morning care session was divided into five phases (99x5), which were rated separately regarding all relevant questions in the coding scheme. Some phases were missed due to technical failure giving a data base of 483 coding schemes, which were analysed using the "double blind" model: A random sample of ten phases from nine morning care sessions were independently rated by another researcher with 83 per cent of exact agreement between the raters. A second analysis was performed in order to compare the acting of each single caregiver of the I-ward before and after training and to compare it with the caregivers of the C-ward. The data were structured as a data base in the statistical package SPSS-PS (SPSS Inc., 1990). No significance test was conducted due to the small material and mainly nominally scaled values.

The video-recorded morning care sessions (n=49) of the interactions between patients and caregivers of the I-ward (Table 1 p. 17) were analysed using a phenomenological - hermeneutic method (IV, V), which was inspired by Ricoeur's philosophy (Ricoeur 1971, 1976, Brown et al. 1989, Ekman et al. accepted). The analysis in study IV was carried out by means of a naive reading, a structural analysis on the basis of the E. H. and J. M. Erikson theory (1950, 1982, 1988), and an interpretation of each interaction seen as a whole. The codes in the structural analysis were transformed into musical notations (cf. Johanson 1987, 1991) to give an overview of the course of events and to catch the development in the interaction. In study V the basis for the structural analysis was the basic strengths/weaknesses described by the Erikson couple (1964, 1982, 1988). The strengths/weaknesses in each interaction were manually sorted and counted to make a comparison possible between disclosed qualities in the patients before and after staff training. Co-assessments were made by another researcher in study IV (from the obstetric working field), and two other researchers in study V (from the obstetric and geriatric working fields), in order to diminish the risk of biasing effects of expectations.

All oral reports (VI) between staff members were *tape-recorded* during an ordinary week on both wards before the training of the I-ward staff. After the training oral reports were tape-recorded during seven days on the I-ward and six days (one missing) on the C-ward (in total 104 oral reports). The reports
were transcribed. Registrations showing ward and time were removed and not known to the person doing the analyzing. The material was divided into messages (in total 11,344) which were classified in the scheme and then entered into the computer. A random sample of 5 per cent (586 messages) were independently rated by another researcher, with 86 per cent exact agreement. The items in the questionnaire (VI) concerning oral reports were answered by 33 of the caregivers of the I-ward before the training and 23 after the training. Corresponding figures for the C-ward were 30 and 16 respectively. New staff who did not take part in answering the questionnaire at the first measurement were not asked to participate at the second measurement, which explains the lower figures of answers at that time. The frequencies of the answers were calculated. The comments from the staff were categorized by two researchers independently. Group differences were analysed according to Fisher's exact test, the Wilcoxon rank sums test and the chi-square test.

Interviews with relatives (n=10) and staff (n=20) were carried out (VII) to illustrate their situation as well as their views on the patients' development and their opinions of the collective living unit and the nursing home respectively. Data from the tape-recorded interviews were transcribed and categorized.

Observations of the environment and the routines of the I-ward and the C-ward (unpublished material, see findings p. 30) were made continuously. The environment of the collective living unit and the control wards of the nursing home were assessed according to the BFMÄ-scale (VII). The results from the subscales were transformed to a common scale where the subscales have the same mean value and standard deviation. The results were then compared with an average of 10 nursing homes in Sweden (Svensson 1984).

RESULTS (I-VII)

Patients

The neurochemical assessments showed that for the patients in the intervention study (I-VI), the CSF somatostatin concentrations had increased in all but one patient of the intervention ward (I-group) after training (p< .001) (I). For the patients of the control ward (C-group) no trend was obtained and the development in the groups differed. The CRF concentrations changed in neither of the groups. Within the C-group the AVP concentrations decreased. This was not seen for the I-group and the different development in the groups was significant (p< .02).
The psychological ratings showed lower mean GBS scores (I) in the I-group (in paper I named T-group) for the total motor and total intellectual items after staff training (measurement 2) compared with before (measurement 1), and lower scores for the symptoms of confusion, anxiety and depressed mood. Significant improvement was seen in four of the six individual motor items (p< .01 up to p< .05) and two of the eleven individual intellectual items (p<.05). Within the C-group there were no significant changes in the mean total scores of the motor items or the symptoms at measurement 2. On the intellectual subscale the scores for impaired recent memory were significantly higher (p< .05) and the scores for distractability significantly lower (p< .05). None of the groups showed significant changes on the emotional subscale. When a covariance analysis was made between the groups, significant differences were found for the mean of the total motor scale (p< .05) and for two in the intellectual subscale (p< .01 resp. p< .05) . All differences provided evidence of improvement in the I-group. The mean total score for impairment of motor performance had increased between measurement 1 and 3 (after nine months) in the C-group (p< .05) indicating increased impairment. A covariance analysis of measurements 1 and 3 showed significant differences between the groups for some motor insufficiency (p< .04), all implying lower scores in the I-group than in the C-group. Ratings using the DD-scale showed significant differences in six variables (p< .005 up to p< .02), when a covariance analysis was made, to the advantage of the I-group. Psychometric tests showed no significant changes in either of the groups.

The patients of the wards were weighed at the start of the study (unpublished material). Four months later 17 of the I-ward patients were still on the ward and were weighed. Eleven patients had increased their weight (in all 28.9 kg, range: .6-7.0) and six had lost weight (21.9 kg, range: 1.0-7.5). Corresponding figures for the C-ward patients were increased weight (4.2 kg, range: 1.0-6.0) for two patients, decreased weight (48.6 kg, range: 1.0-16.0) for 13 and the same weight for one patient. The individual weight changes differed between the wards (p< .05) indicating greater weight loss in the C-ward patients.

During social activities (II) patients (Table 1, p. 17) in the I-group were more active and sociable together with caregivers after training than the C-group. They were observed to be clearer in their cues and showed more sensitivity. In a few cases patients were aggressive towards caregivers.

The analysis of video-recorded morning care sessions using the coding scheme (III) showed more verbal contact initiated by the patients (Table 1, p. 17)
in the I-group after training plus slightly more participation and cooperation compared to the C-group. The phenomenological - hermeneutic analysis of the morning care sessions (IV, V) included the same five patients/caregivers of the I-ward as participated in study III. After training 84 percent of the interactions were interpreted as positive compared with 21 percent before (IV). The care was supporting and permitting and the activity was carried out in intimacy which led to the patients displaying more and more abilities. An analysis of each of the (I-group) interactions as a whole (V) showed patterns of action in the patients which seem to reflect life-long characteristics. All the strengths/weaknesses described by the Erikson couple (1964, 1982, 1988) were seen in the patients. More strengths were noted after the training of staff compared with before, e. g. hope, will and purpose were noticed in the patients when the care was trustful and allowing. Patients showed a lot of competence in the conversations. With sensitive listening and detailed observations the patients' messages could be caught. The patients were seen praising the caregiver, expressing solicitude and facilitating the caregiver's work (interpreted as the strengths love and care), and showing maturity (wisdom) when settling a situation. Some of the interactions assessed as intermediate or negative (n=5) in study IV were turned into positive ones by patients. The patients were sensitive to the situation. They reacted mainly in two ways in interactions interpreted as ending negatively (n=9): by showing passivity, unwillingness and dissatisfaction or by exclusion, criticism, and hard insulting words directed towards the caregiver. The patients seemed to have capacity to interpret the atmosphere properly, including the nonverbal communication from the caregiver, but not to be able to respond and verbally express their own experience clearly.

In the oral reports (VI) of the I-ward more initiatives from the patients in the communication were reported by the staff after training.

Patients (Table 2, p. 21) from the collective living unit (CL-group) (VII) showed signs of better social abilities, more alertness, and reduced signs of depression at the end of the long-term study. The patients also seemed to show stronger autonomy. They were, however, assessed as causing more "disturbances" than the the control subjects in the nursing home (NH-group). Intellectual functions rated by means of the GBS-scale indicated a smaller deterioration in the CL-group (p< .05). When calculating the GBS data according to four factors identified by Nyth et al. (1991) differences were seen in the groups regarding impaired attention. A lower individual progression was seen within the CL-group than within the NH-group (p< .051).

In the CL-group the alpha/delta ratio of the EEG was higher at the 3rd and
4th measurement compared to the 1st one, indicating an increase of alpha relative to delta activity. The opposite development was seen in the NH-group. The difference in development between the 1st and the 4th measurements was significant (p< .05). The changes of the log alpha/delta ratio was significantly correlated with the changes of the GBS intellectual function (r= .75, p< .05), indicating a relation between positive development of the alpha/delta ratio and the GBS intellectual function.

**Milieu**

The collective living unit (VII) was specifically adapted for demented persons with regard to integrity, homeliness and activities, according to the BFMÄ-scale, but less adapted for patients with physical disabilities. The assessment of the control wards at the nursing home showed low figures for orientation and high for activities. The CL-group lived in a new home but among private things of their own. The staff of the collective living unit were trained to create situations that the patients were accustomed to and helped them to take part in ordinary home activities. The CL-group was encouraged to participate in decisions (unpublished manuscript) while the NH-group was usually activated by means of suggests, requests and even orders. The relatives of the NH-group were happy about the living conditions, while the relatives of the CL-group expressed a feeling of trust about the solving of their situation and had very positive opinions about the collective living unit.

In the intervention study (I-V I) the staff of the I-ward made the environment easier to interpret for the patients, and the routines were changed (II). Several of the changes that they decided about during the course week were implemented. The furniture of the sitting room was changed from 1960-70 style to 1930-40 style. Instead of rows of chairs around the walls, groups around tables were arranged so that interaction was encouraged and facilitated. The atmosphere became livelier. Fewer patients sat in wheel-chairs. The presence of caregivers during the music sessions and at the coffee table at measurement 2 changed the character of the conversation into a much more varied one. The environment appeared calmer, as loud modern music from the radio, shouts and groans from patients no longer were heard.

During observations at the I-ward (unpublished) it was found that several changes were introduced: more private articles in the patients' rooms, name-plates on doors, full-size mirrors, bigger signs and symbols in the ward and coloured clothes for the staff. In the dining-room new pictures were hung on
the walls, new patterns had been printed on table cloths and curtains by the staff together with patients, and the patients were allowed to serve themselves food from table-dishes. This increased the contact between the patients and the atmosphere was more pleasant.

From video-recorded social activities (II) before staff training it was obvious that there were caregivers of the I-ward who delivered a care that would have promoted the patients' integrity, and after the training it was seen that some caregivers had not improved their behaviour. On a few occasions caregivers commented on patients' behaviour in an admonitory way, and patients showed aggression to caregivers in a few cases. A few more power struggles were observed during morning care (III) at measurement 2, and a few more incidents where caregivers intruded into the patients' personal territory. Two of the five caregivers that were observed during morning care had only one and no notation respectively of power struggle and intrusion into the patients' personal territory. These caregivers had the largest patient participation in the morning care session (unpublished).

The caregivers of the I-ward in studies II - V showed improved behaviour at measurement 2 in accordance with the training, indicating an increased understanding of demented patients' situation. The five caregivers observed during morning care were all assessed as interacting "better" in accordance with the training, in studies III - V. The analysis in study IV revealed five main patterns of interaction; positive, negative, intermediate, negative/intermediate turned into positive by the patient, and negative/intermediate turned into positive by the caregiver. Before the training, negative and intermediate patterns dominated (58 per cent), while positive patterns did (84 per cent) after the training.

There were caregivers at the C-ward, who delivered a care that would have promoted the patients' integrity (II). The staff of the C-ward got no training until after all the data were collected. Only small differences were seen between the two measurements concerning this staff behaviour. Increased verbal contacts between the five patients and the five caregivers were observed during morning care (III) at measurement 2, and a bit more patient participation in the activity was seen. The patients were given less time at measurement 2, and four of the five caregivers got lower total points, which means that they were assessed "worse" compared with the first measurement. No particular difference was noticed during social activities (II) between the measurements. It was obvious that patients often, for long periods, sat alone and did not take part in any activities. Loud modern music from the radio, shouts and groans from patients
were heard at both measurements.

More messages were given in the oral reports at the I-ward after the intervention (VI). The number of messages per report had increased from 93 (mean per report) to 151. At the C-ward a slight decrease was seen from 90 to 81. The psychosocial categories including the patient's wellbeing and state of mind showed an increase at the I-ward (from 8 per cent to 16 per cent), while the medical content showed a marked decrease at both wards. The caregivers of both wards, however, often discussed the patients' reactions in vague and general terms and the content of the reports was stereotyped and task oriented. About 50 per cent of the messages concerned just stating that something had happened. The answers of the questionnaire (VI) about oral reports showed that the staff of the I-ward were a bit more critical to the reporting after training, while the C-ward staff showed a tendency to increasing positive attitudes.

**Integrity promoting care**

*The intervention ward*

In the main part of the material in studies I-VI the observed caregivers of the I-ward delivered integrity promoting care. It can be described as follows:

<table>
<thead>
<tr>
<th>The caregiver</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>greeted and oriented the patient and initiated the activity before acting,</em></td>
</tr>
<tr>
<td><em>used the patient's first name,</em></td>
</tr>
<tr>
<td><em>encouraged the patient to participate in decisions and activities,</em></td>
</tr>
<tr>
<td><em>gave the patient the opportunity to see his face in a mirror,</em></td>
</tr>
<tr>
<td><em>asked the patient for opinions and wishes and waited for an answer before acting,</em></td>
</tr>
<tr>
<td><em>behaved sensitively and gave the patient more time within ordinary staffing,</em></td>
</tr>
<tr>
<td><em>used body contact to comfort a patient who was worried or moved to tears</em></td>
</tr>
<tr>
<td><em>squatted and knelt on a level with the patients' face when talking to him,</em></td>
</tr>
<tr>
<td><em>regarded the patient as an equal partner in the communication,</em></td>
</tr>
<tr>
<td><em>increased the verbal contact with the patient, adapted her cues when communicating and tried to make the atmosphere positive,</em></td>
</tr>
<tr>
<td><em>commented positively, together with the patient, the work done (made aesthetical appraisals),</em></td>
</tr>
<tr>
<td><em>showed the patient confidence, respect and humanity and confirmed his attempts to act.</em></td>
</tr>
</tbody>
</table>
When the video-recordings were interpreted as a whole on the basis of the E. H. and J. M. Erikson theory (1950, 1982, 1988) it was evident that the staff promoted an experience of wholeness and meaning in the patients through the care delivered. The patients' experiences interpreted as trust, autonomy, initiative, industry, identity, intimacy, generativity, and integrity made them disclose more positive qualities of their personality; in Erikson's terms interpreted as the strengths (Erikson 1964, 1982, 1988) hope, will, purpose, competence, fidelity, love, care, and wisdom.

The collective living unit

Observations at the collective living unit showed that physical aspects of the environment, daily activities and the care were adapted to demented patients. The care was performed in a homelike environment which was possible to recognize and interpret, and the small groups of patients and staff made it easier for the patients. The routines could be adapted to individual needs and wishes and the atmosphere was supporting and allowing. From unpublished findings (Kuremyr et al.) it was obvious that the demented patients in the collective living unit were encouraged to participate in decisions, while the control patients at the nursing home wards were usually activated by means of suggests, requests and even orders.

DISCUSSION

Main findings

The purpose of the present study was to investigate if integrity promoting care improves functions in demented patients, and describe changes over time in patients, the care delivered, routines and the environment.

The staff of a nursing home ward were trained in integrity promoting care. They made a group decisions about changes in care and were given encouragement and support during a three-month intervention period to apply their new knowledge to care provided for severely and moderately demented patients (I-VI). Data were collected before and after the training and the results were compared with a control ward. A collective living unit was investigated and compared with a nursing home concerning patients, relatives, staff, and environment (VII). The staff of the collective living unit had got a one-month training in dementia care before the collective opened. During the investigation
period the staff had discussions about integrity promoting care with the research team and were given support and feed-back of their work.

Results from neurochemical (I-group [I]) and neurophysiological (CL-group [VII]) investigations indicated a smaller deterioration in patients where the staff had had training and support. These patients were also assessed as showing better motor and social ability, somewhat better intellectual ability, more alertness and reduced signs of depression (I, II, VII). The patients also exhibited more autonomy (IV-V, VII) and initiatives (II-VII). Five patients of the I-group (V) showed action patterns which seem to reflect life-long characteristics. Patients could be seen making attempts to influence a negative interaction between them and a caregiver in a positive way (IV). They also showed competence in the conversation both in praising the caregiver and criticising her (V). Several patients of the I-group also had a better appetite (I) and increased their weight. The differences between the groups studied indicated improvement in the I-group and the CL-group compared with the controls. The results of effect measurements in the patients come from a short three-month intervention study, (I-VI), from nine months (I) and from a long-term study (VII).

The care delivered at the I-ward (I-VI) and the collective living unit (VII) together with the adapted physical environment were supposed to have caused the patients' improved functions, since the psychopharmacological treatment of the patients remained unchanged. Caregivers of the I-ward were seen to apply the knowledge from the training (II-VI), and seen as mainly promoting trust, autonomy etc in the patients (IV, V) aiming at increasing their experience of wholeness and meaning. Interviews with staff of the collective living unit (VII) and observations of their interactions with the patients (unpublished) showed a supporting and allowing kind of care aiming at compensating for the patients' lack of resources and affecting their autonomy and wellbeing. The environment of the I-ward (II) was made easier to interpret for the patients, and the atmosphere was warmer and friendlier. The collective living environment (VII) was assessed as positive for demented patients concerning integrity, homeliness and activities. The relatives expressed very positive opinions in the interviews about the patients milieu (VII).
Theoretical and methodological considerations

The E. H. and J. M. Erikson theory

The J. M. and E. H. Erikson theory was used as a basis for the training of the staff (I-VI) as well as for analyses (Erikson 1950, 1964, 1982, 1988). The Erikson couple have applied the term integrity to the experience of wholeness and meaning. The concept of integrity has been defined in various ways by previous authors. Achenbaum and Orwoll (1991) described integrity as a congruence of feeling, thinking, and acting and meant that in order to achieve wisdom the human must develop his affect; self-development, empathy, self-transcendence; his cognition; self-knowledge, understanding, recognition of limits of knowledge and understanding and his conation; integrity, maturity in relationships and philosophical/spiritual commitments. This interpretation seems in line with the Erikson theory that states that the achievement of both integrity and wisdom is a cumulative process that includes many components. In Webster's dictionary (1986) integrity is explained by the terms wholeness, soundness, unbroken state, unimpaired or unmarried condition and being complete or undivided. The term comes from integer that means untouched, whole and entire. The experience of integrity can be threatened in a person who has reached the last stage of life when the coordination of the three processes of organization in a person, soma, psyche, and ethos (Erikson 1982), is weakened. Andersson and Ignatic (1985) claim that as a rule it is easier for a healthy person to protect his integrity than for someone who is ill and in a dependent position. They also claim that integrity per se will not change in different situations. It is the sensitivity for violations that will increase or decrease in conjunction with different kinds of threats. Accordingly integrity has to be discussed in terms of its influence on the degree of dependence as well as age and cultural patterns.

The Erikson theory was chosen for the present study since it is concerned with the development of human beings throughout the life span. The theory has been developed from clinical investigations and from daily living situations; from observations of individuals in their own surrounding. It seems appropriate to use it in training for the illustration of human development and maturity and when estimating individuals in their interactions (cf. Arendt 1958, Freeman 1985, Eskola 1987). According to the theory a disease can make the person regress to earlier crises. In some respects a dementia disease creates a situation for the suffering person that is like the situation in the earliest stages of life. The
general regression seen in demented patients also includes a regression to primitive emotional reactions such as anxiety for anihilation and separation (Hallberg & Norberg 1990).

Some criticism of the theory has been presented. Rapaport (in E. H. Erikson 1959) considered that Erikson is more interested in what is "normal" and its development in a person than in what is deviant. Gilligan (1979) pointed out that the main part of Erikson's studies include men only. Stewart (1977), who found a greater variability in women's development, however, claimed that the difference between sexes did not invalidate the theory. The number and order of the stages have also been questioned. Vaillant (1977) suggested that an extra crisis concerning career consolidation should be included. Gilligan (1979) asked if the crisis concerning intimacy could precede the crisis concerning identity (cf. O'Donell 1985). Andrews (1983) suggests that two additional developmental stages should be considered, namely "relatedness vs. withdrawal" as the seventh stage and "consolidation vs. fragmentation" as the last stage. It has also been stressed that cultural and demographic differences are not explored enough (e.g. Vaillant & Milofsky 1980, Snarey et al. 1983, O'Donell 1985), even if the Erikson couple (1981) have pointed to cultural differences. In the present study the "weaknesses" (Erikson 1964) in the personality (V) were found not to be defined well enough by Erikson. Yet one can agree with O'Donell (1985 p. 127) that "Erikson's stage theory is so richly suggestive that even if it is not 'true', one feels that it ought to be".

Interpretation of interactions

An interaction model based on Barnard's (1981) description of the interaction between the infant and his caregiver and applied to dementia care by Athlin and Norberg (1987) was used for the staff training and for the analysis of video-recorded social activities (II). The model was found to be useful for evaluating the training. This video-recorded material in study II was coded by open coding and categorized in accordance with the grounded theory method (Glaser 1978). The Henderson (1969) model was not comprehensive enough for analysis of the staffs' oral reports (VI), but considered to be useful after supplementing it with components for psychosocial and medical content. Norberg and Asplund (1987) found that 84 per cent of the coded content fell within the Henderson components when using the same model for analyzing oral reports in psychiatric care. The reason for this may be that the staff think about nursing in accordance with the
Henderson model, and the fact that the model is straightforward. The Henderson model has previously been used also for direct observations of nursing care by Shannon (1976) and Brännström and coworkers (1989). The latter group found the model a bit too one-dimensional to catch the complexity of nursing care. This problem was partly overcome in this study by the complementing with assessments in accordance with the nursing process (cf. Ehnfors 1991).

The interaction between patients and caregivers was interpreted in different ways in the present study. Interpretations of human action is a delicate task which will be further discussed below. Human behaviour can be regarded as expressions of experiences (Laing 1967). It is an important task for the caregiver to find the personal experience behind the action of the demented patient (cf. Hallberg 1990). This is a prerequisite for their improving the patients' experience of wholeness and meaning. In order to help a person to plan and perform actions as part of the person's daily life and simultaneously aim at improving health and preventing ill health, the caregiver needs to communicate about the patient's experiences and performance in his daily life (Norberg et al. 1992).

Human beings can be seen as continually striving to understand the meaning of the world that they face (for application to demented patients see Hallberg 1990). Therefore it can be assumed that the "experience of being" for the patient, as well as for the caregiver, is influenced by a process "being - acting - understanding" (Figure 4).

![Diagram](image-url)  
**Figure 4.** The demented patient and his caregiver in a mutual caring activity (interaction).
During a care activity the patient and the caregiver are in their "being" and joined in the "acting". Both try to "understand" the meaning of what faces them. They are interdependent in their relationships (cf. Asplund 1991). The process "being - acting - understanding" makes up a complete whole for the caregiver but is broken and fragmented for the patient owing to the disease and his inability to get an experience of integrity. The caregiver has to compensate for the patient's deficiencies and at the same time promote an experience of integrity in the patient. In the present study the mutual "acting" (interaction) has been studied and the patient's "experiences" have been interpreted.

Morning care sessions were interpreted using a phenomenological-hermeneutic analysis (cf. Ricœur 1971, 1976, Brown et al. 1989, Ekman et al. accepted) of video-recorded material (IV-V). The primary interpretation of what took place in the room was made by the interacting persons. Another simultaneous interpretation was made by the photographer in his choice of what was the most important activities to record. Only one camera was used in order to strike a balance between on the one hand being discreet and on the other taking the risk of affecting the interaction. Further interpretations were made by the author and co-assessors in several steps. A hermeneutic interpretation is influenced by the preunderstanding, values, maturity, and time given the assessors. Rowan and Reason (1987) defined hermeneutics as an interpretative method inherent in the everyday process through which people make sense of their world. The hermeneutic task is to examine the core knowledge of the world and its phenomena in order to arrive at a deeper understanding of these phenomena.

The studies IV and V focused on the dynamic process of an interaction. Musical notations were used (IV) which made it possible to catch the development over time. This approach of investigation may be called an "impressionistic" interpretation catching shades of shadow and daylight. The method of video-recording is to be recommended when studying this type of social interactions but it demands consent from the persons involved. In addition the photographer has to do his job in an ethically appropriate way and also handle the video-material with special consideration to the persons studied (cf. Norberg et al. 1985). When performing participant observations of interactions the whole surrounding context can be included in the observation, which can be assumed to give extra supplementary information. By using video-recordings it was possible to make repeated observations of the subjects and to follow the course of the interactions. This made it also possible to
perform the study V which needed an intensive interpretation work for the patients' personality to become evident (cf. Petry et al. 1988).

The coding scheme used in study III was constructed on the basis of the consent concerning the training, which was based on the Erikson theory. The theory has previously been used as a framework for developing instruments for empirical studies also by Boyd and Koskela (1970) and Boyd and Martin (1984). When analysing tape-recorded lunch-meals using the Erikson theory Hallberg and co-workers (1990) coded the most common crises in a sequence. Ekman and co-workers (accepted) performed a structural analysis of video-recorded morning care sessions in two-minute sequences. If more than one crisis was indicated they were all registered. In this present study (IV, V) all activities were coded as related to the crisis on the highest level of maturity possible, although the theory is holistic and presupposes that the other crises are relevant for the whole, which is more than the sum of all crises. This coding presupposes that the crises are hierarchically ordered and that the solutions are cumulative which is supported by an empirical investigation by Gruen (1964). The type of analysis used in the present study was sufficient for the purpose of the study. This analysis created another result as well; an increased understanding of the great difficulties of the caregivers' tasks.

Co-assessments and measurement considerations

The researchers who analysed the material in studies II, III and VI did not know from which ward it came or if it had been gathered before or after staff training. To further reduce the biasing effect the co-assessors in these studies and in studies IV and V came from other working fields (obstetric and neurology) and had not been involved in the training. Findings from studies IV and V of morning care sessions were also compared with the results from study III, in which notes from the same morning care sessions were quantified using a coding scheme. Two different research teams (one in study III and one in studies IV and V) had thus carried out the analyses in these studies, and the findings were congruent.

The groups of patients that were compared in studies III and VII were made as homogeneous as possible with regard to diagnoses and degree of disease. As no indications of different responses to milieu changes with regard to different diagnoses were seen in previous works (Karlsson et al. 1985, 1988), the patients are reported as "demented" without any subgrouping. The GBS-scale has been found satisfactorily reliable and valid (Bråne 1989). It was handled by one of its
constructors during the investigation. Neurophysiological, and neurochemical investigations were made by skilled staff with established routines using instruments of known reliability and validity, and the results were tested for significance (for details of neurochemical investigations see Widerlöv et al. 1989).

Interpretation of findings

Effects in the patients of integrity promoting care

The changes in the care and the adapted environment seemed to have influenced the patients in the present study in various ways. Patients of the intervention ward and the collective living unit (I-VII) were estimated as showing increased ADL-functional and motor ability compared with controls, which is in accordance with findings by other authors (Svensson 1984, Alfredsson 1989, Maas & Buckwalter 1991), better social ability as shown by Alfredsson (1989), somewhat better intellectual ability, more alertness and reduced signs of anxiety and depression as shown by Karlsson and coworkers. (1985, 1988). The findings from the neurochemical investigations are in accordance with Karlsson and coworkers (1985, 1988) (I), the neurophysiological findings are in accordance with Matuosek (1983) (VII) and they indicate a reduction of supposed dementia-induced changes.

The biological findings do not show that the care had influenced the natural progress of the disease, but are more to be seen as an influence on the function of the injured brain. The integrity promoting care was aimed at optimizing the resources of the brain, so that the person could function in his everyday life. To constantly misunderstand and be misunderstood is bound to cause strain in a person. The care delivered increased the experience of trust and seems to have decreased the strain in the patients and can be the reason why the patients in the study participated a bit more in activities and functioned better after staff training. This can also be the reason for the decreased depression in the patients. It can be assumed that the process of "being-acting-understanding" (Figure 4) was less fragmented for the patient.

The increased competence (V) during conversation is in line with findings by Åkerlund and Norberg (1986) which indicate that demented patients in favourable conditions can converse on advanced topics. Ekman and associates (accepted) found that bilingual demented patients disclosed more latent competence when interacting with bilingual as opposed to monolingual
caregivers. Gustafsson (1992 p. 66) discusses the concept of confirmation. She proposes that an interaction governed by a confirming attitude provides the patient with strong assistance and is connected with comfort and wellbeing, and she recommends the caregivers "to become aware of the importance of being sensitive in the meeting with a patient and make conscious one's own confirming communication competence". The staff in this study were, in accordance with the training, seen to confirm the patients' initiatives and verbal attempts, which was interpreted as a factor that contributed to the positive outcome of the study. E. H. and J. M. Erikson (1964, 1988) emphasize confirmation as essential for every strength to mature in the person. Watzlawick and co-workers (1967) see confirmation as the greatest single factor for mental development and stability. For a demented person with reduced memory and reduced capabilities it must be one of the most basic supports to be able to disclose competence.

The signs of more "strengths" in the personality (cf. Lazarus 1963, Eskola 1987) disclosed after staff training by some patients in study V were seen as a result of their supporting and allowing milieu (cf. Abramson et al. 1978, Priddy et al. 1982). This interpretation seems reasonable in light of the fact that aging and especially dementia increases individuals' vulnerability to situational stress (Aldwin et al. 1989, Hagberg et al. 1991). Personality alterations in demented patients are reported by several authors (Rubin et al. 1987, Cummings et al. 1990, Dian et al. 1990, Pearson 1990, Persson et al. 1991) using personality inventories. Johanson and coworkers (1990) found differences in emotional reactions and defensive strategies between patients with Alzheimer's disease, frontotemporal degeneration and multi-infarct dementia using a meta-contrast technique. It seems, however, as if intensive interpretation work is necessary for a more detailed pattern of mental reactions in the patients to become obvious (cf. Butler 1963, Asplund et al. accepted). This is in line with studies of newborn babies. Their competence has become known when new research methods have been used (cf. Widström et al. 1987, Holmlund 1988, 1989).

Patients' experience of integrity

Patients in the study were assessed as showing more signs of integrity than the controls (VII, II, IV). The findings by Hallberg and co-workers (1990) showed a kind of care where integrity was not promoted in vocally disruptive patients, which is in contrast with the findings in the present study and to findings by Ekman and coworkers (accepted) concerning bilingual caregivers.
It seems important to create opportunities for patients and to encourage them to take part in decisions and activities, thus promoting an experience of "I dare", "I want to", "I can" etc. It is also important to give support during the conversation to give a feeling of "I enjoy", "I give", to attain an experience of integrity. If the patient is prevented from that, the consequence is negative experiences, which will suggest acceptance or refusal, receptivity or protest. The struggle may be resolved positively or negatively depending on the caring persons (cf. J. M. Erikson 1988). If this state becomes aggravated the patient may develop a chronic state with feelings of inferiority, guilt, shame, doubt and mistrust, which will be disclosed in the patient's behaviour as inertia, inhibition, compulsion and eventually withdrawal.

Patients from study V could be seen making attempts to positively influence a negative interaction by praising the caregiver, but could also criticize her. In her desire to involve the patient in the activity the caregiver risks intruding into the patient's territory. This was seen in study III. It was also noted that some more power struggles developed. Patients showed somewhat more aggression directed towards caregivers (II, III). The need for a territory of one's own is universal in human beings and increases with age (Malmberg 1980) connected to old people's stronger need of seclusion and integrity (cf. Roberts 1976, Hayter 1981). In the present study caregivers who had the lowest numbers for power struggles and intrusion had the highest patient participation (unpublished material). This way of showing more autonomy and initiative from patients is in congruence with studies IV and VII.

The fact that the demented patient often cannot make his own decisions, because he cannot understand the situation, leads to problems for caregivers (Ekman & Norberg 1988, Jansson & Norberg in press). Veach (1984) stressed that the caregiver should try to find out how the patient would act in this situation, if he could decide himself. The concept "weak paternalism" has been used for the caregiver having to act in the best interest of the incompetent patient (cf. Thomasma 1983). Martinsen (1990) and Brännström et al. (1991b) proposed weak paternalism in situations when the patient for example could hurt himself.

The author of this thesis suggests that the term "weak paternalism" should be replaced by the term "maternalism". The new word "maternalism" was found in a late version of Webster's dictionary (1986) for the state of having or showing maternal instinct. The term "maternal" denoted motherhood, love and tenderness. Maternalism will here be defined on the basis of the adjective maternal meaning support, defence, and protection (but not restraint).
Maternalism will be seen as a life-affirming function in society. The word was also found to be used by Grimshaw (1986 p. 249) to represent two beliefs: "first, that insofar as there are distinctively female understanding of social relationships or female ethical views, there should be seen as arising principally out of the practice of mothering; second, that the relationship between mother and children can provide a model or paradigm for other relationships". Ruddick (1989) stressed three aspects of maternal practice, namely preservative love with protective care of the child, nurturing the child's emotional and intellectual growth and shaping the child to grow in acceptable ways. Mothers need strategies of protection, nurturing and training of their children. E. H. Erikson (1950, 1964, 1982) connects one aspect of the experience of wholeness, namely holiness, to the child's relationship to his mother (cf. Hvarfner 1988 p. 133) and (E. H. Erikson 1964 p. 116) stressed that in order to develop hope the child needs "trustworthy maternal persons".

It seems logical to argue that the care of demented patients sometimes can be regarded as an expression of maternalism and mothering. Hagberg (1991) has suggested that the patient with Alzheimer's disease needs "mothering", while the patient with a frontal dementia needs "fathering". Mayeroff (1971) has described care as fathering (helping the child to grow and realize himself). Ruddick (1989 p. 70) has pointed to the fact that mothering presupposes commitment to the child and the task, and Athlin (1988) has stressed the central role of commitment in the care of the severely demented patient. In order to mother a preverbal child the caregiver has to be attentive to the child's cues and imaginatively grasp the child's vulnerability (cf. Ruddick 1989, p. 18). Likewise the caregiver has to be able to see meaning in the demented patient's unclear and week communicative cues (Athlin et al 1987, Asplund 1991). There are, however, problems connected to the mothering of a demented patient. When trying to explain negative reactions by caregivers towards severely demented patients, Asplund and Norberg (accepted) argued that the severely demented patient lacks the characteristics of 'babishness' that seem to elicit positive feelings in healthy people (cf. Gaylin 1976, pp. 35-71, Ragneskog et al. accepted). Instead primitive anxieties may arise (Hallberg & Norberg 1990).

Even if the relationship between the demented patient and the caregiver is not symmetrical or equal, both giving and receiving is involved, since human beings are interdependent (Lögstrup 1986, Asplund 1991). In this respect the meeting with the severely demented person is comparable to someone's interaction with a new-born baby. The resources of these people must, however not be neglected. The more dependent a person is, the higher degree of
consciousness for the person's sense of integrity is necessary among the caregivers. It seems reasonable to assume that caregivers who promote the demented patient's integrity also develop their own integrity (cf. Asplund 1991 p. 27). Although the principle of mutuality (Erikson 1964 pp. 219-248), which means that the good that we ought to aspire to do to another human being will reflect back on ourselves, is valid for all ages and all stages of development, we have to be aware of the fact, that the patient and caregiver are at different stages of what is called "the life cycle" by the Erikson couple. The range can be large between the position of the young person in a dynamic development and the old demented one, who is going into a stage of dissolution.

Caregivers' experience of integrity

Åkerlund and Norberg (1990) found a connection in dementia care between caregivers' experience of powerlessness and meaninglessness. Asplund (1991) assumed that caregivers who could not understand their patients or could impute meaning into their cues felt estranged from their patients. The communication difficulties for the patients influence the caring process for the family (Maas & Buckwalter 1991) as well as for the professional caregivers and seem to be a threat to their commitment (Ekman et al. 1991). This increases the risk for the patient to be treated like an object (Athlin et al. 1990). Ethical conflicts are experienced daily by staff working close to patients with severe dementia (for review see Norberg in press). These patients impose a heavier psychiatric work load on the staff than non-demented patients (Nygaard 1987, Sandman et al. 1988). Larger proportions of staff at risk to develop burnout, were found among those working in geriatric care compared with those in acute care by Åström and associates (1991). Åström and associates (1990) stressed theoretical knowledge about dementia diseases, the philosophy of care, the organization of care and availability of support in the work as important factors for developing positive attitudes and decreasing the risk of becoming burnout in dementia care. During the interviews (VII) staff of the collective living unit and their controls were asked about the kind of support they needed or wanted. They could not specify any wishes but stressed the need for support (unpublished). Most caregivers of the I-ward and the C-ward in the intervention study (unpublished) found it valuable and necessary to have a supervisor at the wards (in answers of the questionnaire) for guiding the nursing development. The "yes"-answers were 60 per cent before training and 96 percent after training. The comparing figures on the C-ward were 79 and 94
respectively. Björkhem and associates (1992) reported similar findings when they asked caregivers who provided home-care for demented patients. It is obvious that there is a great need of nurse specialists on the wards for training and supervising staff and developing the nursing care (cf. Hallberg et al. accepted, Jansson et al. unpublished) in such a way that it also gives the caregivers a deeper experience of wholeness and meaning in their work.

A home-like environment

The organization of care for demented patients has been treated by several authors (e.g. Miller 1985, Athlin 1988, Brännström et al. 1991b). They conclude that a system with the same few caregivers caring for each patient is preferable. E. H. Erikson (1982) has discussed the necessity of the mother's ritualization when caring for her child, which will help the baby to perceive disparate experiences as coherent and logical. Such a ritualization supports the recognition of face, name and situation and counteracts fear, anger and agony. In negative interactions between autistic children and their mothers, it can be seen that the mother withdraws, eye contact is lacking as well as confirming facial expressions, and the child makes repeated stereotyped movements (E. H. Erikson 1982). The autistic child's behaviour is related to the injury of the brain (Gillberg 1992). Few caregivers caring for each autistic child in an institution is regulated by Swedish law for being able to meet the child in the same way when interacting with it. There can be a similar phenomenon behind the severely demented patient's acting. The demented patient regresses when his world becomes fragmented (Hallberg 1990). Some patients show a child-like behaviour in attempts to draw pictures (Ericsson accepted; Ericsson et al. in press). Loss of ADL- skills (Sandman et al. 1990) and repeated stereotyped behaviour, for example agitation, wandering and screaming (Teri et al. 1988, Hallberg et al. accepted) are seen in the patient, and in the final stage of the disease he may lie curled up like a fetus (Norberg et al. 1986) with active sucking reflexes (Asplund et al. 1991b). An organization aiming at reducing the number of caregivers around the patient will facilitate the ritualization, which is supposed to be of great importance. The organization will thus make it possible for the caregiver to become aware of the patient's history, his qualities and personality, and his experiences.

The milieu of the collective living unit (VII) could be assumed to give the patients an experience of meaning. Probably several circumstances contributed to this. The environment was made homelike, the group of patients was small,
and few caregivers were engaged in the care which may have resulted in a kind of ritualization of the care. However, more research is needed in order to understand what makes demented people feel at home or lost. Zingmark and coworkers (accepted) found that the patients not feeling at home was a noticeable phenomenon at a small homelike group living unit. However, there were also episodes when patients seemed to feel at home. These episodes were characterised by the fact that the patients expressed relatedness; they seemed related to time, space, their own person, other people, objects, and events.

When the demented patients investigated by Zingmark and coworkers (accepted) were "on their way home" they were often searching for their mother, father or small children. They seemed more related to their past than to their present. It seems likely that an important ingredient in integrity promoting care is that caregivers know about their patients' past (cf. Ekman & Norberg 1988) and are willing to listen sensitively to the stories from their past (cf. Brännström et al. 1991b). When reviewing research on reminiscence in elderly Thornton and Brotchie (1987) concluded that it is uncertain what effect reminiscing has on normal and confused elderly in residential homes. They suggested that the most positive effect may be that the caregivers learn about the individuals' past. Burnside (1990) regarded reminiscence to be an independent nursing intervention and reviewed literature about reminiscence as an intervention to alleviate depressive states and anxiety. There are a few studies that report positive effects on confused patients (e.g. Baines et al 1987). Orten and coworkers (1989) stressed the role of the therapist. Taft and Nehrke (1990) found a positive correlation between the use of reminiscence in elderly at nursing homes and ego integrity as assessed by means of a rating scale based on the Erikson theory. This, of course, does not have to mean that the therapeutic use of reminiscence leads to increased ego integrity. More research is needed on the effect of different forms of reminiscence on demented persons.

It seems reasonable to believe that the experience of "at-homeness" is overlapping the experience of integrity. To be a complete whole is to be related to one's past, present and future. It also seems logical that in order to improve an experience of integrity in the demented patients, several measures have to be combined, among them a homelike environment (cf. Sandman 1986) and an integrity promoting kind of care as described in this thesis.
GENERAL CONCLUSIONS

In this thesis an evaluation of the effects of integrity promoting care of demented patients has been made using medical, psychological and nursing research methods in a complementary process (cf. Barbosa da Silva 1992). The findings are in agreement with each other. The general conclusion is that integrity promoting care improves functions in the demented patient. The evaluation of the findings puts forward the need of a maternalistic perspective in the care. In order to promote an experience of wholeness and meaning in the demented patient and maintain his optimal physical, cognitive, emotional and social functions the milieu ought to be suitable, allowing, supporting, confirming, generous, kind, giving, as well as protecting. This kind of care would be easier to accomplish in small home-like units, which seem to provide a humanizing element and to permit patients to live in a dignified way.

More research is needed to test models of intervention that may lead to further understanding of the care of persons with dementia diseases and their families. Research is also needed about how to support staff and guide nursing practice. A deeper understanding is essential about what will further promote the old demented person's experience of integrity and how the patient's fragmented awareness of the milieu influences his experiences. Implementation of the findings in this thesis would lead to functional improvement in demented patients and increase their experience of integrity.
ACKNOWLEDGEMENT

This study was carried out at the Department of Advanced Nursing, University of Umeå, the Department of Psychiatry and Neurochemistry, University of Göteborg, and the Centre for Caring Sciences, Örebro Medical Centre Hospital. I would very much like to express my gratitude to everyone; family, relatives, friends and colleagues who have contributed, helped me and been supportive and understanding throughout this work.

I wish to express my sincere gratitude to:
-Professor honoris causa, former chief physician and head of the Örebro Medical Centre Hospital, Olof Wilander, for initiating me in the world of scientific thinking and in the development of human organizations.
-Professor Astrid Norberg, Umeå, my supervisor, for criticism and generously sharing her deep knowledge, and brilliant problem solving with me at 11pm as well as 5 o'clock in the morning.
-Associate professor Ingvar Karlsson, Göteborg, my second supervisor, for good care when conveying medical theory and practice in doses, well balanced and with patience, and for excellent ideas in the dissertation work as well as for broken furniture and cars.

I would also like to express my special thanks to:
-patients, their relatives and staff for their support and cooperation
-my research colleagues and co-authors Görel Bråne, Birgitta Engström, Anita Hallgren, Dan Kuremyr, Pehr Leissner, Inge-Gerd Lindstén, for sharing their knowledge, and for friendship and many happy moments. My special thanks to Dan Kuremyr for hard work with my references in the last minutes
-my colleagues at the Department of Advanced Nursing, Umeå, and the Centre for Caring Sciences, Örebro, for support and open-minded criticism of my papers
-Ms Else Melin, MSc, Vollsjö, for training the staff
-Mr Lennart Bodin, PhD, Örebro, for his patience when initiating me into the mysteries of statistical analysis
-Mr Björn Wrangsjö, MD, Stockholm, for fruitful discussions about the Erikson theory
-Ms Inga Karlsson, Örebro, for video-recording most of the material
-Mr Lars-Göran Jansson, photographer, Örebro, for beautiful figures and quick help
-Mr Per-Arne Öberg, BA, Umeå, for revising and giving the English a literary touch and for personal involvement in my work

Last but not least I would like to thank my family for reminding me about the most important part of my life:
My husband Lars for creative thinking, patience and never ending support, my daughter Annica and her family for support, love and affection, my son Johan for long-suffering help with the computer work, and him and his family for constant support and love.

The study was supported by grants from the Research Committee of the Örebro County Council, the Medical Faculty of the University of Umeå, the Hjalmar Svensson's Research Foundation and the Foundation "Gamla Tjänarinnor".
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