EMPIRICAL STUDIES

Calibrating and adjusting expectations in life: A grounded theory on how elderly persons with somatic health problems maintain control and balance in life and optimize well-being

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Abstract

Aim: This study aims at exploring the main concern for elderly individuals with somatic health problems and what they do to manage this.

Method: In total, 14 individuals (mean = 74.2 years; range = 68-86 years) of both gender including hospitalized and outpatient persons participated in the study. Open interviews were conducted and analyzed according to grounded theory, an inductive theory-generating method.

Results: The main concern for the elderly individuals with somatic health problems was identified as their striving to maintain control and balance in life. The analysis ended up in a substantive theory explaining how elderly individuals with somatic disease were *calibrating and adjusting their expectations in life* in order to adapt to their reduced energy level, health problems, and aging. By adjusting the expectations to their actual abilities, the elderly can maintain a sense of that they still have the control over their lives and create stability. The ongoing adjustment process is facilitated by different strategies and result despite lower expectations in subjective well-being. The facilitating strategies are *utilizing the network of important others, enjoying cultural heritage, being occupied with interests, having a mission to fulfill, improving the situation by limiting boundaries and, finally, creating meaning in everyday life.*

Conclusion: The main concern of the elderly with somatic health problems was to maintain control and balance in life. The emerging theory explains how elderly people with somatic health problems calibrate their expectations of life in order to adjust to reduced energy, health problems, and aging. This process is facilitated by different strategies and result despite lower expectation in subjective well-being.

Key words: Grounded theory, well-being, life expectations, social network, cultural heritage, meaning in life, coping

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In the USA and Europe, the proportion of elderly is quite high. In Scandinavia, the Norwegian population of 4.8 million individuals, more than half a million are 65 years of age or older. In Sweden with about 9 million citizens, about 2 million are over 65 years of age. The proportion of elderly in the Western countries will grow considerably in the coming decades, partly because length of life increases. Many of the elderly are quite healthy but several of the elderly living at home, in assisted care, or in the hospital have chronic and complex diseases, one or more disabilities, and/or medical diagnoses (Waaler, 1999). In spite of serious debilitating physical conditions, elderly ones are often quite happy and comfortable with their lives. It is interesting to know what helps physically vulnerable elderly manage their everyday lives and feel as well as possible. This is important, since it is known that well-being may affect both selfreported health and the measured physical state (Benyamini, Idler, Leventhal, & Leventhal, 2000).

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In a health perspective, well-being may be delimited and defined as positive and negative emotional status like anxiety, depression, general well-being, self-control, and vitality (Dupuy, 1984; Helvik, Jacobsen, & Hallberg, 2006). Well-being is subjective and value-loaded in the sense that the individual's own goals, expectations, standards, and concerns influence their evaluations of their situation. The experience of well-being is often seen as the global quality of life, expressed by the individual's conscious positive and negative cognitive and emotional experiences (Ness, Mastekaasa, Moum, & Sørensen, 2001). Well-being includes terms such as joy, love, and self-esteem. Other characteristics such as purpose, connections, mastery, positive selfregard, activity, and self-image are also inherent in psychological well-being, as listed in the frameworks by Ryff and Corey (1995), Diener, Sapyta, and Suh (1998), and by Ness et al. (2001) and their respective associates. Further, well-being in the elderly is linked to feelings and emotions such as loneliness, anger, lethargy, feeling interested in something, feeling of accomplishment, boredom, and uneasiness about something without knowing why (Johnson & Barer, 2003). We see well-being in line with Heidegger's philosophy (as equalized with the terms emotional well-being and psychological well-being) as being or feeling well (Sarvimäki, 2006). Thus, well-being here includes all the elements described above.

For years the path to well-being has been explored theoretically and by use of quantitative research methods (Diener et al., 1998; Freund & Baltes, 1998; Ness et al., 2001; Rowe & Kahn, 2000; Ryff & Corey, 1995; Strawbridge, Wallhagen, & Cohen, 2002). In quantitative studies, well-being in the elderly is negatively tied to poor health, chronic disease, and disability (Lamb, 1996; Wu et al., 2000; Yohannes, Baldwin, & Connolly, 2008). Secondly, there is a positive correlation between socioeconomic status and well-being in the elderly (McKenzie & Campbell, 1987; Scott & Kivett, 1985). In a review of quantitative research studies, it was highlighted that socio-economic disadvantages such as low income and education, difficult access to health service resources, little control over the environment, and unsecured neighborhoods may lead the elderly to experience threats that impair health and reduce well-being (Blazer, 2008). Thirdly, the interpersonal environment and the social network in which the elderly are embedded affect their well-being (Moore, Metcalf, & Schow, 2006; Ness et al., 2001). It has been found that the network size and contact with others are important for well-being and, further, that well-being is influenced by the level and quality of social support and

by fulfilled cultural expectations (Baxter et al., 1998; Beyene, Becker, & Mayen, 2002). Also, it is found that well-being was good in the elderly who experienced belonging to community and family network structures (Litwin, 2006). Family network and interdependent support have been reported to contribute more to well-being than did friends (Weng, 1997). Finally, quantitative studies have, over the years, found that maintenance of engagement and participation in activities in late life influence wellbeing (Litwin, 2006; Menec, 2003; Morgan & Bath, 1998).

Recently, qualitative studies that focus on ordinary individuals' thinking and experiences of health and well-being have been published. Foremost, these qualitative studies have focused on health promoting resources, recovering from or living with specific medical conditions, or living in special geographical areas, but they have not necessarily concerned elderly people and have often concerned women (Contrada et al., 2004; Forssén, 2007; Forssén & Carlstedt, 2006; Hafting, 1995; Harvey, 2007; Kristofferzon, Löfmark, & Carlsson, 2007; Sofaer-Bennet et al., 2007). An exception is Johnson and Barer (2003) who researched the everyday lives of elderly people beyond 85 years of age in San Francisco, California and what made them survivors. As far as we know, there are no studies exploring what the elderly with somatic health problems are doing to optimize their wellbeing. Such an enlarged understanding is needed and might be helpful to further improve clinical gerontological nursing.

Grounded theory is a powerful tool for social and health science that helps us to deepen the understanding of what is going on within a particular setting (Morse et al., 2009), e.g., elderly with somatic health problems. In conducting such a research study, it is important to include elderly persons of both genders with a broad spectrum of somatic health problems including one or more disabilities. In addition, it is desirable to include the elderly with a wide age range and with and without a known history of emotional distress in order to maximize variation in experiences and data. Elderly people's own reflections, thoughts, and experiences are important in order to gain a deeper understanding of what everyday life means to them (Malterud, 2003). Therefore, the aim of this grounded theory-study was to explore the main concern for elderly individuals with somatic health problems and what they do to manage this and to optimize their well-being in everyday life using an inductive theory-generating approach, namely grounded theory.

Method

An inductive qualitative study, such as grounded theory, allows the participants to describe their thoughts and actions in their own words and is a method to study process (Glaser & Strauss, 1967). Grounded theory aims at generating concepts and theory from data rather than to test hypotheses based on existing theory. The theoretical basis for such an approach is pragmatism and symbolic interactionism, which points out meaning that is constructed and influenced by interactions between individuals (Blumer, 1969; Mead, 1934). According to Glaser (1992), quality criteria of a theory grounded in data is that it has fit, work, relevance and is "readily modifiable" (p. 117) and, hence, generalizable.

Participants

Fourteen participants (4 women) aged 68-86 years (mean 74.2 years) were included in the study. They were all recruited from the Medical Department at Innlandet Hospital Trust Division Tynset, both hospitalized and outpatients (10 and 4 individuals, respectively), in the period from September 2006 until November 2007. The participants came from a heterogeneous group of individuals suffering from somatic illness including one or more disabilities. All were living in Norwegian rural communities and had at least one chronic disease each. The selection was directed by the principle to form a broad picture of the area under study, i.e., to maximize the variability of experiences by selecting participants with different backgrounds, marital status, level of education, and diagnoses (Table I). All participants were cognitively well functioning and had grown children. Six participants had a known history of being in psychological distress, i.e., have previously had depression or anxiety problems and treatments.

Open interviews

An open interview was conducted with each of the participants lasting about half an hour. The open interviews included an interactive process that required active involvement from both the participant and the interviewer. The interview questions intended to facilitate an exploration of the elderly somatically ill participants as regards their experiences of their main concern and what they were doing to manage this and to optimize their wellbeing in everyday life. The interview concerned topics focusing on what affected their mental wellbeing, what they did to optimize their well-being in everyday life. During the interview, related topics that were raised spontaneously either from the interviewer or from the participants were followed up. The interviewer asked relevant probing and follow-up questions. The interviews were taperecorded and transcribed verbatim onto protocol.

Procedure and ethical considerations

The elderly individuals requested to participate in this study got written and oral information about the project and informed consent was signed before inclusion in the study. They met the interviewer at the hospital. She was the coordinator of the project and known among the invited elderly, but was not involved in their treatment or rehabilitation at the hospital. The interviewer of this paper is a registered nurse with methodological education in the qualitative research method. Trust and shared relational equality were important in the interview situation. After transcription of the interviews and control of the transcriptions, the records were destroyed. The study was approved by the regional committee for medical research ethics in southeastern Norway (402-06164 1.2006.2106). We made efforts to keep the participants anonymous in the article and, therefore, not all somatic health problems are included or the diagnoses reported in Table I or elsewhere in the text.

Analysis of data

Collection and analysis of data was done simultaneously, which means that each interview was coded as soon as it was transcribed (Glaser & Strauss, 1967). The basic rules of grounded theory analyses include looking for psychosocial processes, discovering existing problems, and how people involved handle those problems (Stern, 1980). The analysis generated codes, categories, and concepts in which the core category was the most abstract level and the substantive codes at the most concrete level. In the initial open coding process, the interview transcripts were broken down and conceptualized. Substantive codes were identified by searching for significant phrases and words line by line from the protocols. Thus, incidents in the data were the units of analysis (Hallberg, 2006; Strauss & Corbin, 1990). The substantive codes were labeled concretely, often by use of the words the elderly person used. During open coding there was a continuous comparison for similarities and differences in different parts of the data and protocols. Substantive codes with similar meanings were then sorted into groups and formed categories, which were given more abstract labels than the codes pertaining to it. Also, properties and dimensions of each category as well as connections between categories were sought. All generated

Table I. Characteristics of the participants. Duration of Known history Subject Age years Gender Civil status education Somatic health problems Duration of illness of emotional distress 1 68 Male Widower >13 years Episodes with synapses New Diabetes with kidney complications ≤ 2 years 2 86 Male Married Complications to New Anxiety ≤ 10 years Heart and vascular disease ≤ 2 years 3 74 Married Vertigo Depression Female ≤ 10 years New 4 78 Cerebral ischemia Anxiety Female Married ≤ 10 years New Reduced mobility ≤ 2 years 5 76 Male Single 11-13 years Skin tumors New Gout >5 years Kidney failure >10 years Serious heart and vascular disease >20 years Male Married Serious heart and vascular disease 6 75 11-13 years New Anxiety 7 = outp72 Female Widow 11-13 years Rheumatoid arthritis ≤ 10 years 67 Gastric disease 8 = outpMale Married ≤ 10 years \leq 5 years 85 Polyneuropathy 9 = outpMale Married ≤ 10 years ≤ 10 years Urinary problems ≤ 10 years Remitting episodes of unconsciousness 70 Married New Depression 10 = outpFemale ≤ 10 years Heart and blood disease >5 years Migraine >20 years 11 81 Male Widower ≤ 10 years Gout New Urinary problems ≤ 2 year Heart and vascular disease >20 years 12 71 Married Complications to Depression Male ≤ 10 years New Kidney and heart failure >10 years, Diabetes ≤ 10 years Hypertension 13 68 Male Single 11-13 years New 14 68 Male Married >13 years Vision defect New

Tumor in brain and gastrointestinal tract

>10 years

outp = outpatient.

categories were continuously compared to each other and saturated through theoretical sampling; that is, the emerging result directed where new data could be found and which questions should be asked to add further information. A core category was identified and could be related to the other categories. Memos were written during the entire analytical process to record ideas and assumptions regarding data and the relation and exposition between the categories (Whittemore, Chase, & Mandle, 2001). During the analysis, the authors strived to restrain their preconceptions, also called "disciplined restraint" (Hallberg, 2006). The analysis and the audit trail were done by the first author (AH) with supervision from the last author (LH).

Results

The main concern for elderly people with somatic health problems in our study was to maintain control and balance in everyday life. Analysis of data ended up in a substantive theory that explains how they are calibrating and adjusting their expectations in order to manage this main concern despite reduced energy level, health problems, and aging. By calibrating and adjusting the expectations to their actual abilities, the elderly can maintain a balance and a sense of that they still have the control over their lives. The ongoing calibrating and adjustment process is facilitated by different strategies and result, despite lower expectations, in subjective well-being. The facilitating strategies are utilizing the network of important others, enjoying cultural heritage, being occupied with interests, having a mission to fulfill, improving the situation by limiting the boundaries, and creating meaning in everyday life. Examples of substantive codes included in each category are represented in Table II.

Calibrating and adjusting expectations in life – the core category $% \left(\frac{1}{2} \right) = 0$

The main concern for the elderly with somatic disease was to maintain control and balance in life. This was done by calibrating and adjusting their expectations in life. It was obvious that failing health forced changes in life. The situation that was experienced as new became, after a period, the normal situation. The adjustment to this new normal situation was perceived somewhat differently, but jointly the elderly participants were amazed at what they could get used to. The adaptation to the changed situation took time, even if one had come to terms with the disease/illness and the new situation it brought along. It was hard to adjust to a life with the illness, especially in the Table II. The core category "Calibrating and adjusting expectations in life" and five facilitating strategies elderly persons with somatic health problems use in order to maintain control and balance in life and optimize well-being.

Core category

Calibrating and adjusting expectations in life Adjusting to the new situation takes some time Comparison with others in a worse situation Turn to other interests that fits with the new situation Resettle the expectation of mission to fill

Facilitating strategies

- Utilizing the network of important others Wife has the same view, makes life easier Being with family makes you feel joy When difficulties, the best friend is the one to talk too Old mates to share the past with Enjoying cultural heritage
- It's natural to move back near the area where you grew up
- To pass along the hunting interest to the next generation is heritage
- Secure the future of the farm and the natural resources connected to it
- To be in nature is fantastic

Being occupied with interests

- It is like therapy
- Helps me to use the brain
- To create something and succeed
- It's a part of being alive
- Having a mission to fulfill
 - To help others keeps me going
 - Getting a good experience of having delighted others To take care of yourself is satisfying
- To never be a burden for someone makes me feel good
- Improving the situation by limiting boundaries

- I used money and efforts to get certain things to function better
- You have to arrange your living situation so it's more practical

Creating a meaning in everyday life

I find my life and other things meaningful Feeling comfortable with myself and my everyday life Having important factors in my life that makes it valuable to live Health is miserable, but my life is worthwhile

beginning. However, the elderly tried to be reasonable and to think rationally to avoid getting depressed. When they started to think of their advanced age, they felt quite lucky for each day they could get up in the morning and manage themselves. Expectations in life changed for the elderly, along with the acceptance of the ill health and the new situation. In this process of calibrating expectations, use of negative comparisons seemed quite common. When comparing health and life situation with someone who was worse, had died, or

It helps to live a wholesome life, train, and eat healthy I asked for assistance; take initiative to better your health situation

that the illness itself could have been even worse or life threatening made the elderly feel quite well or lucky. Interests and missions shifted when the health situation became reduced and the elderly focus on other aspects of life. It was not new interests or missions, but they focused merely on those things that were still possible to do and not so much on those things that were no longer appropriate.

Utilizing the network of important others

In the adjustment process the elderly used facilitating strategies such as utilizing their networks, which included the inner circle, the spouse, and close family. Having a spouse with the same view of things in everyday life improved psychological well-being and made life easier. One expressed "we are quite alike, so that ... one knows what the other thinks. ... It happens that we start to express the same sentence at the same moment." A few of the elderly did not have a spouse with the same view of things; they could not share thoughts, actions, and difficulties with their spouse and expressed that as a grief. To meet other elderly people was important for those who were alone: to have someone to talk to and to share their everyday life with. The close family, mostly defined as children and grandchildren, was important for well-being in life. One person said: "close family that makes you feel joyful." Others used expressions such as "I am lucky with my family" and "the family lets you have an enjoyable time." The elderly emphasized that the family knows their problems, so they can share difficulties, and get practical assistance from them. This was a relief for them improving their well-being, but could also reduce the impact of illness in everyday life. Family members were persons they can speak to, have contact with, and share experiences with. Being with their close family also included social gatherings and having a nice time together. These factors contributed to enjoyable experiences and strengthened feeling of well-being, being involved in life, and creating meaning in life. Elderly participants with problematic family relations expressed that these influenced their well-being negatively.

Also, the frequency and the regularity of pleasant contacts with close family members were important for well-being, e.g., "he (the grandson living away) is really nice, he phones several times a week ... he comes ... we see him several times during the winter." At the same time as regularity and high frequency of family contacts were of importance, the elderly were concerned about not demanding too much of their family. The frequency of contact was therefore partly dependent on the initiative of family members. This is illustrated in the quote below: I must be careful, not to be too old-fashioned and somehow demanding too much social interaction with my grandson. There are times I wish for more social contact ... more knocking on my door... dropping in now and then. But ... then, when I get hospitalized all show up. Why can't they think of that more in everyday life, too?

The network of important others could include good friends. Close friends are important because of their helpfulness, they gave support, expressed their concern and interest in the physical and psychological well-being of the elderly. A close friend was someone to talk to about problems and difficulties, e.g., when they had no spouse to talk to, or the elderly "haven't wanted to put a burden on them." It was not the size of network of friends that counted, but that one or a few were available either on the phone or in person when needed; e.g., one "when it happened (got seriously ill) my best friend was abroad, and it got awfully hard for me, for she was the only one I could talk to" and "I have a person I may phone, and I do so. I phone the person and get a lot of encouragement, and this person is tremendously good ... It is important to have an interlocutor." Friends gave the elderly with somatic health problems strength in difficult situations. Together with friends, they also had someone to share past life experiences and cultural values with, as well as to have fun and an enjoyable time with. It made them feel interested and involved in life.

Enjoying cultural heritage

It seems that close things-such as nature and cultural heritage-become even more valuable and appreciated to people by increasing age. The elderly in the study described their cultural heritage as belonging to rural areas with small villages, farming land, and large areas of woods, wilderness, and mountains as important. Some had lived their whole lives there while some had moved back from villages and cities far away when they retired or became disabled pensioners. Those moving back said either that it felt natural to move back to where they grew up or they wanted more explicitly to come back to their roots. They had kept some contact with the area during their adult life, like coming on summer visits to relatives, having a cabin there, or having a family mountain pasture. A part of enjoying their cultural heritage was enjoying the nearness to nature and the life this represents. Such a life helped them to adjust to a situation with reduced energy. Nature experiences were expressed as peak experiences of mental well-being using words like "the mountain is like paradise," or "to be in nature has been my happy

pill, always." The relation to nature was often emphasized as a perpetually important value in life. Participants underlined that they grew up being close to nature; nature had been important since childhood, had lasted during diverse periods in life. Nature gave recreation and beauty; being in nature gave the opportunity to think more clearly, be free, forget some of their difficulties, see the life in perspective, and to adapt to the limited resources.

Further, enjoying cultural heritage included enjoying values pertinent in the culture by seeing them as important. The elderly emphasized the importance of transferring these values to the next generations. The values were related to the local culture, like Norwegian rose painting and the hunting and fishing tradition, but also to more global values like love, honesty, trust, stability, and a good family life. Seeing that the values were passed on and followed by children and grandchildren contributed to their joy and happiness. For some, a farm represents their lifework. For those who experienced that there was no one in the next generation that could run the farm gave them a feeling of hopelessness and brought sadness, grief, and difficulties into the elderly lives. Generally, it was important for the elderly to transfer the farm, the natural resources, and the land with houses and/or cabins that they owned to family members or someone else that could take care of it. Having this sorted out was important for the elderly with vulnerable health in their process of calibrating their expectations to their capacity and to optimize their well-being.

Being occupied with interests

Having interests, or being engaged in something, gave the elderly with somatic health problems feelings of well-being. The elderly in the study expressed very different kinds of interests, but all felt it important to have one or more interests and, further, to be occupied with them. The importance was described as "meaning a tremendous amount to me," "it is a part of being alive," and "makes me feel well." The interests could vary from keeping the house nice to more traditional leisure activities such as knitting, crosswords, reading, playing Patience, watching television, and hearing the radio. Having interests gave a positive outlook, a feeling of happiness, and having an enjoyable time. It brought excitement, amusement, and pleasure to their lives. Quite a few in the study pointed out that their interests gave them the opportunity to be creative and successful and, thereby, they got a good feeling. Further, these interests helped them to forget their difficulties, gave them peace of mind, and a break from their difficulties:

Calibrating and adjusting life expectations

Football is like a part of living, you forget everything, then. You get awfully tired afterwards, but fine up here (pointed to his head). I lived quite well with my illness ... I think I managed quite well, because I had sports ... then I forgot everything." It is like an outlet I have found, you see ... I'm interested in society issues, too. One has to interest oneself with something.

On the whole, the elderly individuals with somatic health problems in the study expressed that having interests made them mentally and/or physically active and engaged, helped them to adapt to their abilities and, thus, the interests were important for their psychological well-being. Some did combine their interest with fulfilling a mission.

Having a mission to fulfill

The elderly individuals with somatic health problems described how "having a mission to fulfill" contributed to balance and meaning in life and influenced their well-being positively. The missions to fulfill were either related to social work, the network of important others, or to taking care of oneself and their possessions. Those doing social work helped some in their neighborhood, the municipality, or abroad, and the work was voluntary. The rationale behind this was that those needing help had low economical resources, low social status, or difficulties for other reasons and were in need of help. The quotation below intends to illustrate this:

I think of the children in Estonia ... they are freezing during wintertime, so I knitted ... 48 pair of socks and sent them ... you know, happy colors ... I must have some (rows) with colors ... in between, they (the children in Estonia) get happy because of it (nice colors)."

The elderly felt they made a difference for some. Several expressed that the work gave them pleasure and well-being in everyday life: "it is very important for me to matter for others and it keeps me going." Quite a few of the elderly helped some in their network, too. They focused especially on how they helped their spouse and close family members. It could be practical work or just being available for them. This gave them a feeling of being valuable. They felt needed, which gave them a pleasant feeling and an experience of having good years:

He (the grandson) plays football, you see, and I coach him a bit ... and she (a spectator) said it was so fun to see ... a grandfather who is always with them (the boys)—being there for them. ...

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So, even if it has been hard several times ... My son says: "Do you have the energy to it?" I am capable of it, but I don't tell them everything.... It gives me so much, you see.

It was also seen as important to manage to care for themselves and not be a burden on family or society. The elderly in the study expressed that being independent from others triggered good feeling and a sense of control, as well as satisfaction, and mental well-being. To be active and involved in taking care of themselves and their belongings had a higher importance than the other possible missions they had. The type and degree of missions to fulfill were related to how they regarded the environment, utilized their network, and what interests they had but also to their health condition. With reduced capacity, the missions to fulfill were turned toward managing everyday life routines and activities.

Improving their situation by limiting the boundaries

The elderly people with health problems in the study struggled to improve their situation. They focused on elements of the present situation that were difficult and tried to improve those by active problem solving. Their physical health situation was an object for concern. Exercise, training, and other forms of physical activity were perceived to help them to improve their physical capacity and to resist further somatic health deterioration. It was meaningful for them and helped them to still have control and balance in life. Some said it made them feel good, others expressed that when they pushed their own limits it was like a victory. This quotation from the interviews is an example from a woman who tried to build herself up by stretching her physical limits:

For each victory I manage I can see myself put a thin, thin book chapter upon something. ... Like this I work myself upwards ... it gets to be books ... I tell myself when I manage something... that I have used quite some energy on the way ... that this has got to be a big book on top of the stack. ... This I build further on.

Physical activity was seen as important to health and well-being, but there was also the need to balance activity with rest, enough sleep, and proper nutrition to secure the best premises for optimizing health. Further, the elderly people in the study took control over their situations and learned what was good or worked best for them in their particular health situation. It was expressed as learning to live with their health problems and included learning to interpret signs and symptoms and to use tricks or strategies to alter the causes of extra difficulties.

The elderly focused on the importance of taking the initiative themselves to improve their situation. This did not necessarily mean that they could solve or reduce the difficulties themselves, but that they sought information in medical books and on the internet, got knowledge of new treatment options, asked for assistance from their network or physicians, or sought alternative medicine. One man explained his way of actively seeking treatment assistance by saying: "it was the side effects of the medicine ... (describing the problems in detail)... I asked the physician at the... Hospital to... and it got better ... you have to take the initiative yourself, too."

When elderly people with somatic health problems managed to improve their health situation they also improved their available level of energy. Another way of improving the energy level was by changing the living accommodations by moving to smaller flats or houses that were more practical. By this, they adjusted and calibrated their expectations in life and managed to take care of themselves and had resources to do things of importance for their wellbeing. They created a worthy and meaningful life in spite of somatic health problems.

Creating meaning in everyday life

Creating meaning in everyday life is essential for elderly peoples' psychological well-being. The elderly in the study used expressions such as feeling comfortable with life, feeling life is worthwhile, and experiencing a good everyday life. The experience of creating and having a meaningful life was important for acceptance of the disease(s) and the boundaries it sets for what they could manage and how they lived their lives. An elderly person in the study started the interview by expressing this with: "my health is miserable, but except for that my life is worthwhile." In many different ways, the elderly people with somatic health problems in the study expressed the importance of a meaningful life and how they struggled to create meaning in everyday life: "I try to do something meaningful." They pointed out that some values which had been important to them earlier in life had changed over the years: e.g., in the younger years, career had greater importance, gave meaning to life, but did not mean much nowadays.

Discussion

Our study generated a substantive theory, showing that the main concern for elderly persons with vulnerable somatic health is to maintain control and balance in life; a life with reduced energy level, health problems, and aging. In order to maintain control and stability through their changed situation, they need to calibrate and adjust their life expectations. This is described in the emerging core category. The ongoing adjustment process is facilitated by different strategies and result, despite lower expectations, in optimized subjective well-being. The facilitating strategies are utilizing the network of important others, enjoying cultural heritage, being occupied with interests, having a mission to fulfill, improving their situation by limiting the boundaries, and creating meaning in everyday life. By calibrating and adjusting the life expectations to actual abilities, elderly persons can maintain a sense of well-being in their lives.

The elderly persons in this study recalibrated their expectations, values, and wishes when their new health and life situation became the new normal situation. They reduced their life expectations or focused on other aspects in life, other values, wishes, and interests. This means that they were involved in a process of accepting the health difficulties and disabilities, and that this process contributed to a recalibration of internal standards. This is in line with what Wright (1983) wrote, namely that acceptance of somatic health problems and disabilities is a process of value changes. The process of acceptance refers to an adaptive psychological process that helps us to maintain meaning and stability through changes and seems crucial for optimizing psychological well-being. The goal reconstructions process based on declining resources is essential for successful aging (Johnson & Barer, 2003) and may be referred to as a loss-based selection strategy (Freund & Baltes, 1998; Jopp & Smith, 2006).

The elderly in this study kept the responsibility and initiative over their situation in order to improve their present health situation, to diminish further health deterioration, and to limit the boundaries set by the disease(s). This was done by actions like exercise, proper nutrition, and enough sleep. Also, they sought assistance from others to improve their health and living situation. The elderly described use of problem-focused coping strategies: active strategies aimed at managing or altering the situation that caused difficulties (Lazarus & Folkman, 1984). They used optimization and compensation strategies that may be seen as indicators for successful aging (Freund & Baltes, 1998; Jopp & Smith, 2006). The elderly in the study coped within the constraints imposed by somatic health problems. In line with Calman's (1984) theoretical framework, the ways of coping described above help the elderly to close some of the gaps between the desired and the experienced situation and by doing this they optimize their psychological well-being.

Maintaining meaning, control, and balance in life is essential for all human beings. In van Hooft's (1997) framework of health, he states that having and maintaining meaning in life is a primordial need and the most distinctive one. In line with this, Antonovsky (1987) viewed experiencing meaningfulness as fundamental for a strong sense of coherence and essential for health. The process of constructing a coherent story and making meaning in everyday life entails biochemical processes that promote health and psychological well-being (Pennebaker, 2000). The above-mentioned frameworks and studies support that elderly persons own experiences and thoughts of meaning, balance, and control in life is essential for their health, adaption of health and/or age boundaries, and well-being. In this study, the elderly experienced that their personal values underwent change as they grew older and developed health problems. What they felt important in life during youth was not necessarily of the same importance as they grew older (Moore, et al., 2006). Maintaining and creation of meaning, balance and control in everyday life gave coherence to their life, it wove past and present experiences together in continuity, and shaped patterns of behavior in relation to their challenges in life, which was originated from age, living with chronic and complex diseases, and/or one or more impairments.

The experience of psychological well-being was connected to how the elderly persons regarded their network. The importance of connectedness to family and friends has been noted as being a strong component for psychological well-being in other studies (Kaufman, 1986; Moore et al., 2006; Ness et al., 2001). The elderly with vulnerable health keep those social relations important for them (Johnson & Barer, 2003). We found that elderly people also utilized the network of important others to optimize well-being and to adjust easier to their difficult health situation. Secondly, we found that elderly people with somatic vulnerable health are afraid of being too demanding, bothering, or putting a burden on those in their network, especially on family members. Thus, they may restrict their initiative and social contact and support in the short run in order to keep good social relations and support over time.

The somatic health problems or the aging per se do not make the cultural heritage less significant. In this study the elderly underlined that enjoying cultural heritage was a continual value and important for their well-being in life. They experienced the transferring of both local and more global cultural values to the future generations as important, and experiencing that these values when regarded highly in the younger generations were linked to an additional psychological well-being. Further, cultural heritage included a strong love of the nature surrounding them and the life this represented. The somatic health problems may set restrictions for elderly persons outgoing, but living close to nature in rural areas seems helpful in the ongoing adjustment process and important for their wellbeing. Like we found, other studies from rural areas have found a connection with the geographical area and the culture it represented significant for promoting well-being (Harvey, 2007; Hegney et al., 2007).

Having a mission to fulfill and having, and being occupied with, interesting activities made their ongoing adaption to their health boundaries and everyday life easier and was helpful in order to maintain balance and control in life and to optimize wellbeing. In line with our findings, Diener and colleagues argued that psychological well-being is partly based on the human's feeling of making progress toward goals (having a mission to fulfill) and their feeling of immersion in interesting and pleasurable activities (Diener et al., 1998). Also, our results are in line with the classic gerontological theory, which maintains that in order to preserve a positive sense of one's self, elderly people need to substitute new roles for ones lost in old age (Schroots, 1996). The activities reported in this study are in line with activities found to be important in quantitative reports (Menec, 2003); this is true also in other cultures than the Western (Litwin, 2006). However, the present qualitative study also found that the content of the leisure activities and missions to fill changed and how they had changed with increased somatic health difficulties. Thus, their missions and activities were adjusted to their available resources and capacity; that is, reconciled within the boundaries created by their health difficulties and tied to their coping with vulnerable health. Each individual had some unique way to organize life consistent with his or her abilities (Johnson & Barer, 2003).

Limitation and strength of the study

This study had participants from rural areas of Norway. The context in which the study was performed may have played a role for our findings. Especially that the participants were considerably connected to their living area and the nature surrounding them. It might be argued that the present results cannot be generalized to elderly living in other cultural settings. However, the external validity in qualitative studies focuses on transferability rather than generalization (Whittemore et al., 2001). Even if some of the examples given in the present data referred to the area in which the persons were sampled, they generally expressed the importance of the connection to cultural values and enjoyment of cultural heritage, which is supported by others as important for well-being. This is easy to transfer to elderly people in other settings.

Validity in qualitative research is always important (Whittemore et al., 2001). Our focus was to study what the participants stated as their main concern for themselves as elderly ones with varying degrees of somatic health difficulties and prior history of emotional distress and what they did to manage this main problem. It could be argued that the number of participants included was too restricted, or that the "oldest old" were not included, etc. In line with guidelines for grounded theory, we used participants who suited our purpose of solving the mystery of how elderly with vulnerable somatic health optimize their well-being. After 10 or 11 interviews, the information was redundant and inclusion was ended when saturation was met (Glaser & Strauss, 1967; Hallberg, 2006; Malterud, 2003; Strauss & Corbin, 1990). We had a positive approach, asking about what increased and optimized well-being, and did not elaborate on their experiences of failure to optimize well-being, if they did not take that approach themselves. This was done in order to implement the study in a sensitive way and to increase the validity (Whittemore et al., 2001). However, it may have camouflaged some information, e.g., potential differences between elderly with and without a prior history of emotional distress. The chosen approach helped the participants to share their experiences and reflections with the interviewer and helped us to achieve good descriptions of the selected categories. Further, during the entire analysis process, memos were written and an audit trail was created; the most experienced qualitative researcher reviewed the analysis by use of the memos and the audit trail. These measures have ensured an adequate validity of the study (Whittemore et al., 2001). Even if it can be argued that this study has some limitations, the findings are of interest. Health and social workers should be aware that calibrating life expectations is important to elderly persons with somatic health problems in order to maintain balance and control in life and to optimize their well-being. Such an enlarged understanding may be helpful in increasing the staff's empathy toward the elderly, helping them reflect on and improve their advice in order to optimize their nursing of such vulnerable individuals. Thus, our study will further improve clinical gerontological nursing.

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There is no conflict of interest

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References

- Antonovsky, A. (1987). Unravelling the mystery of health: How people manage stress and stay well. San Francisco, CA: Jossey-Bass.
- Baxter, J., Shetterly, S.M., Eby, C., Mason, L., Cortese, C.F., & Hamman, R.F. (1998). Social network factors associated with perceived quality of life. The San Luis Valley Health and Aging Study. *Journal of Aging and Health*, 10, 287–310.
- Benyamini, Y., Idler, E.L., Leventhal, H., & Leventhal, E.A. (2000). Positive affect and function as influences on selfassessments of health: Expanding our view beyond illness and disability. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 55, 107–116.
- Beyene, Y., Becker, G., & Mayen, N. (2002). Perception of aging and sense of well-being among Latino elderly. *Journal of Cross-Cultural Gerontology*, 17, 155–172.
- Blazer, D.G. (2008). How do you feel about...? Health outcomes in late life and self-perceptions of health and well-being. *Gerontologist*, 48, 415–422.
- Blumer, H. (1969). Symbolic interactionism: Perspective and method. Englewood Cliffs, NJ: Prentice Hall.
- Calman, K.C. (1984). Quality of life in cancer patients—A hypothesis. *Journal of Medical Ethics*, 10, 124–127.
- Contrada, R.J., Goyal, T.M., Cather, C., Rafalson, L., Idler, E.L., & Krause, T.J. (2004). Psychosocial factors in outcomes of heart surgery: The impact of religious involvement and depressive symptoms. *Health Psychology*, 23, 227–238.
- Diener, E., Sapyta, J.J., & Suh, E. (1998). Subjective well-being is essential to well-being. *Psychological Inquiry*, 9, 33–37.
- Dupuy, H.J. (1984). The psychological general well-being (PGWB) index. In N.K. Wenger, M.E. Mattson, C.D. Furberg, & J. Elinson (Eds.), Assessment of quality of life in clinical trials of cardiovascular therapies (pp. 170–183). Washington, DC: Le Jacq.
- Forssén, A.S.K. (2007). Humour, beauty, and culture as personal health resources: Experiences of elderly Swedish women. *Scandinavian Journal of Public Health*, 35, 228–234.
- Forssén, A.S.K., & Carlstedt, G. (2006). "It's heavenly to be alone!": A room of one's own as a health-promoting resource for women. Results from a qualitative study. *Scandinavian Journal of Public Health*, 34, 175–181.
- Freund, A.M., & Baltes, P.B. (1998). Selection, optimization, and compensation as strategies of life management: Correlations with subjective indicators of successful aging. *Psychology and Aging*, 13, 531–543.

- Glaser, B.G. (1992). Basics of grounded theory analysis. Emergence vs. forcing. Mill Valley, CA: Sociology Press.
- Glaser, B.G., & Strauss, A. (1967). The discovery of grounded theory. Chicago, IL: Aldine.
- Hafting, M. (1995). *Et eple om dagen* [An apple a day]. Otta: Tano AS.
- Hallberg, L.R.-M. (2006). The "core category" of grounded theory: Making constant comparisons. *International Journal* of Qualitative Studies on Health and Well-being, 1, 141–148.
- Harvey, D.J. (2007). Understanding Australian rural women's ways of achieving health and wellbeing—A metasynthesis of the literature. *Rural Remote Health*, 7, 823.
- Hegney, D.G., Buikstra, E., Baker, P., Rogers-Clark, C., Pearce, S., Ross, H., et al. (2007). Individual resilience in rural people: A Queensland study, Australia. *Rural Remote Health*, 7, 620.
- Helvik, A.-S., Jacobsen, G., & Hallberg, L.R.-M. (2006). Psychological well-being of adults with acquired hearing impairment. *Disability and Rehabilitation*, 28, 535–545.
- Johnson, C.L., & Barer, B.M. (2003). *Life beyond 85 years*. New York: Prometheus Books.
- Jopp, D., & Smith, J. (2006). Resources and life-management strategies as determinants of successful aging: On the protective effect of selection, optimization, and compensation. *Psychology and Aging*, 21, 253–265.
- Kaufman, S. (1986). The ageless self: Sources of meaning in late life. Madison: University of Wisconsin Press.
- Kristofferzon, M.-L., Löfmark, R., & Carlsson, M. (2007). Striving for balance in daily life: Experiences of Swedish women and men shortly after a myocardial infarction. *Journal of Clinical Nursing*, 16, 391–401.
- Lamb, V.L. (1996). A cross-national study of quality of life factors associated with patterns of elderly disablement. *Social Science* & *Medicine*, 42, 363–377.
- Lazarus, R.S., & Folkman, S. (1984). Stress, appraisal and coping. New York: Springer.
- Litwin, H. (2006). The path to well-being among elderly Arab Israelis. *Journal of Cross-Cultural Gerontology*, 21, 25-40.
- Malterud, K. (2003). Kvalitative metoder i medisinsk forskning: en innføring [Qualitative methods in medical research]. Oslo: Universitetsforlaget.
- McKenzie, B., & Campbell, J. (1987). Race, socioeconomic status, and the subjective well-being of older Americans. *International Journal of Aging & Human Development*, 25, 43– 61.
- Mead, G.H. (1934). Mind, self and society: From the standpoint of a social behaviourist. Chicago: University of Chicago Press.
- Menec, V.H. (2003). The relation between everyday activities and successful aging: A 6-year longitudinal study. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 58, 74–82.
- Moore, S.L., Metcalf, B., & Schow, E. (2006). The quest for meaning in aging. *Geriatric Nursing*, 27, 293–299.
- Morgan, K., & Bath, P.A. (1998). Customary physical activity and psychological wellbeing: A longitudinal study. Age and Ageing, 27(Suppl. 3), 35–40.
- Morse, J.M., Noerager Stern, P., Corbin, J.M., Bowers, B., Charmaz, K., & Clarke, A.E. (2009). Developing grounded theory. The second generation. Walnut Creek, CA: Left Coast Press.
- Ness, S., Mastekaasa, A., Moum, T., & Sørensen, T. (2001). Livskvalitet som psykisk velvære [Quality of life as psychological well-being]. Oslo: Norsk institutt for forskning om oppvekst, velferd og aldring (NOVA)—3.
- Pennebaker, J.W. (2000). Telling stories: The health benefits of narrative. *Literature and Medicine*, 19, 3–18.

- Rowe, J.W., & Kahn, R.L. (2000). Successful aging and disease prevention. Advances in Renal Replacement Therapy, 7, 70–77.
- Ryff, C.D, & Corey, L.M.K. (1995). The structure of psychological well-being revised. *Journal of Personality and Social Psychology*, 69, 719–727.
- Sarvimäki, A. (2006). Well-being as being well—A Heideggerian look at well-being. *International Journal of Qualitative Studies* on Health and Well-being, 1, 4–10.
- Schroots, J.J. (1996). Theoretical developments in the psychology of aging. *Gerontologist*, *36*, 742–748.
- Scott, J.P., & Kivett, V.R. (1985). Differences in the morale of older, rural widows and widowers. *International Journal of Aging & Human Development*, 21, 121–136.
- Sofaer-Bennett, B., Walker, J., Moore, A., Lamberty, J., Thorp, T., & O'Dwyer, J. (2007). The social consequences for older people of neuropathic pain: A qualitative study. *Pain Medicine*, 8, 263–270.
- Stern, P.N. (1980). Grounded theory methology: Its uses and processes. Image (IN), 17, 20-23.
- Strauss, A., & Corbin, J. (1990). Basics of qualitative research. Grounded theory procedures and techniques. Newbury Park, CA: Sage.
- Strawbridge, W.J., Wallhagen, M.I., & Cohen, R.D. (2002). Successful aging and well-being: Self-rated compared with Rowe and Kahn. *Gerontologist*, 42, 727–733.

- Van Hooft, S. (1997). Disease and subjectivity. In J.M. Humber & R.F. Almeder (Eds.). What is disease? Biomedical ethics reviews (pp. 287–323). Totowa, NJ: Humana Press.
- Waaler, H. T. (1999). Scenario 2030. Sykdomsutvikling for eldre fram til 2030 [Increase of disease in the elderly against 2030]. Oslo: Helsetilsynet—6.
- Weng, B.K. (1997). Social network and subjective well-being of the elderly in Hong Kong. Asia Pacific Journal of Social Work, 8, 5–15.
- Whittemore, R., Chase, S.K., & Mandle, C.L. (2001). Validity in qualitative research. *Qualitative Health Research*, 11, 522– 537.
- Wright, B.A. (1983). Physical disability—A psychosocial approach (2nd ed.). New York: Harper and Row.
- Wu, A.W., Yasui, Y., Alzola, C., Galanos, A.N., Tsevat, J., Phillips, R.S., et al. (2000). Predicting functional status outcomes in hospitalized patients aged 80 years and older. *Journal of the American Geriatrics Society*, 48(Suppl. 5), S6– S15.
- Yohannes, A.M., Baldwin, R.C., & Connolly, M.J. (2008). Prevalence of depression and anxiety symptoms in elderly patients admitted in post-acute intermediate care. *International Journal of Geriatric Psychiatry*, 23, 1141–1147.