

Need fulfillment in the nursing home: resident and observer perspectives in relation to resident well-being

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Abstract Self-reports in nursing homes generally show highly satisfied residents, whereas observational studies provide more nuanced results. In this study, which is based on self-determination theory, the perspective of nursing home residents (self-reports) is compared to the perspective of trained “neutral” observers (video-observations). The experiences of physically frail older residents are measured with regard to the fulfillment of their needs for relatedness, autonomy, and competence. Self-reports of need fulfillment *in general*, *in the caring relationship*, and *during a caregiving episode recorded on videotape* of 36 residents (64 % female, mean age 80 years) were compared with observer ratings of resident need fulfillment during the latter caregiving episode. Furthermore, it was investigated which measure relates best to residents’ self-

reported well-being. The results show that residents rate their need fulfillment higher than observers. There is weak to moderate agreement between resident and observer ratings. Furthermore, only residents’ self-reported need fulfillment *in general* is related with self-reported well-being. Different explanations are provided, including the “barrier of happiness,” the use of cognitive strategies, a change in identity and existing power relations. There seems to be a paradox in caregiving: Residents and their needs should be central, but because residents might adapt their needs and wishes it is hard to assess these. Suggestions for practical applications are given.

Keywords Self-determination theory · Quality of life · Person-centered care · Autonomy

Responsible Editor: H.-W. Wahl.

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Need fulfillment in the nursing home: Resident and observer perspectives in relation to resident well-being.

Outside observers often judge aspects of people’s lives in a different way than people themselves. In long-term care, there may also exist differences between the perspective of the resident and an outside observer (the interviewer) concerning residents’ needs and wishes. Due to the institutional context and the dependent position of nursing home residents, discrepancies between residents and observers might be problematic during the provision of care. The following case observation by the first author represents such a discrepancy: A male resident asks a caregiver for another sandwich. She answers that the resident has eaten enough for this morning. He says that he would really like another one, but the caregiver insists on her decision and tells him that lunch will already be served in 2 h. During an interview with this resident, he expressed to always experience freedom to choose in the nursing

home. When specifically asked about the sandwich, he answers that he does not really care about the sandwich and that he can always decide for himself.

Studies on the resident perspective using self-reports show a mixed picture: On the one hand, residents are generally very optimistic and satisfied (e.g., Guse and Masesar 1999; Mozley et al. 2004). On the other hand, depression rates in nursing homes are three to four times higher than in older people living in the community (Jongenelis et al. 2004). Observational studies in nursing homes show nuanced results in that there often is a focus on care needs (compared to socio-emotional needs), dependence is being provoked, and there is a lack of choice (e.g., Granger 2004). Because both observations and self-reports are often used interchangeably in nursing research it is of importance to gain insight in the relation between those two perspectives. In particular because in daily practice the focus is more and more on person-centered caregiving in which the individual resident with his or her experiences and emotions is central (Kitwood 1997; Brooker 2007). In order to be able to provide good person-centered care, it is crucial to know how the perspective of the observer and that of the resident are related to residents' well-being (i.e., positive affect balance and feelings of satisfaction). We will first briefly discuss the previous studies that have compared resident and observer ratings and explain the differences with the current study. Then, we will describe the theoretical base of our study.

Previous studies in nursing care that investigated the perspectives of residents as well as observers can be divided into two groups. Most of these studies compared the perspective of staff or relatives with that of residents (e.g., Gerritsen et al. 2007; Kane et al. 2005; Spector and Orrell 2006), whereas some other studies also compared the resident perspective with that of independent trained observers (Edelman et al. 2005; Sloane et al. 2005). In all of these studies only low to moderate correlations were reported between the perspectives. This indicates that observers within the care system of the resident as well as trained outside observers have different opinions compared to the residents themselves with respect to different aspects of well-being, such as social relations, the amount of choice and mood. However, there is a major difference between staff as observers and trained "neutral" observers. According to the literature on actor–observer differences staff may be biased in that they underestimate the role of situational or environmental factors (like their own communication with the resident) in the behavior of residents. They tend to attribute resident behavior and well-being only to personal, physical, and mental factors (Jones and Nisbett 1971; Timko and Rodin 1985). The trained, "neutral," observer looks further than the physical constraints of the resident and focuses on the contribution of

the environment to residents' well-being. In the current study we investigate the perspective of this "neutral" observer who is trained in objectively rating video-recordings of morning care.

In previous comparison studies mostly residents with dementia were included. Therefore, an often reported explanation for the differences between residents and observers is the cognitive decline of the residents that might have influenced the reliability of the resident measures. Yet, there are other reasons that could explain possible differences between residents and observers. For instance, residents might answer in a social desirable manner out of shame for their situation or out of hesitance or even fear to criticize their daily care (e.g., Custers et al. 2010; Mozley et al. 2004; Roos 1988).

Furthermore, it is possible that residents lower their expectations concerning for example autonomy in the nursing home. When little choice is expected, ratings concerning autonomy will possibly be higher than when much choice is expected. In order to examine whether cognitive decline offers a sufficient explanation for possible differences, in our study the focus is on residents with physical illness and relatively intact cognition. In addition, we included newly admitted residents with the expectation that they have not yet adapted their needs. This will be the first study comparing resident and observer perspectives in this particular population using video-recordings rated by trained observers.

Our study was based on a social psychological theory on need fulfillment and well-being: self-determination theory. Two approaches on well-being can be distinguished, namely the hedonic and the eudaimonic approach (Ryan and Deci 2002). The hedonic approach focuses on *subjective* well-being, which is formally defined as more positive affect, less negative affect, and greater life satisfaction (Diener et al. 1999). The eudaimonic approach defines well-being more broadly in terms of need fulfillment (Ryan and Deci 2002). Within the self-determination theory, both approaches and the relation between them are central. The authors of this theory (Ryan and Deci 2002; Deci 2008) state that the fulfillment of three universal psychological needs is important for subjective well-being. The first one is *Relatedness* and refers to feeling connected to others or having a sense of belongingness. Next, *Autonomy* refers to the experience that one can choose activities, make decisions, and regulate behavior in accordance with one's own individual goals. And third, *Competence* refers to feeling effective in pursuing and achieving these goals. In nursing homes, the fulfillment of these three needs is difficult to achieve. Contacts with important others are under strain (married persons are for example often separated from their partner), and the need for autonomy is under pressure due to a new day structure and the institutional regime. Physical limitations and a consequent dependency on others can lead to a low feeling of

competence. Research based on this theory shows the fulfillment of these needs indeed to be related to the subjective well-being of residents in nursing homes (Custers et al. 2010; Kasser and Ryan 1999; Philippe and Vallerand 2008). Due to their frailty, the need fulfillment of nursing home residents depends for a large part on support from and interaction with staff. Therefore, we particularly investigate residents' need fulfillment during interaction with nursing staff.

To be able to pronounce on the ability of the different perspectives to adequately reflect need fulfillment it is important to investigate how they are related to residents' subjective well-being. Therefore we studied not only the eudaimonic viewpoint in terms of need fulfillment, but also the hedonic viewpoint that focuses on subjective well-being in terms of the absence of depressive feelings and satisfaction with life. In the literature on long-term care one study was found that investigated different perspectives and their relation with residents' subjective well-being. Hollinger-Sampson and Pearson (2000) reported that resident, nurse-aide and supervisor ratings of empathy were relatively independent of each other. Only empathy as perceived by the residents was found to be associated with depression in cognitively intact elderly nursing home residents. Based on this, we expect the resident perspective to have the highest relation with resident well-being.

The first aim of this paper was to compare the resident perspective on need fulfillment with the perspective of trained observers. For this comparison we used a mixed method of quantitative and qualitative measures: structured questionnaires, video-observations, and semi-structured interviews. However, in order to be able to systematically compare the perspectives all of the results were quantified. *Three* resident measures and video-observations of need fulfillment were compared. The resident measures differ in level of specificity: we assessed experienced need fulfillment in general, need fulfillment in general as provided by the nurses (in the caring relationship), and need fulfillment in a specific caregiving episode as provided by one specific nurse. The observational measure also pertained to this caregiving episode, which was recorded on videotape and rated afterward by trained observers. The second aim of the study was to investigate which measure of need fulfillment was related best to residents' subjective well-being. Based on the previous research described before, we expect the different perspectives to be relatively independent (1) and the resident measures to relate best to subjective well-being (2).

Methods

Participants and procedure

This paper is based on the first measurement wave of a longitudinal study on need fulfillment and well-being in

which residents were followed for 8 months during the first year of residing in a nursing home. In the Netherlands, different groups of residents (e.g., somatic, psychogeriatric, Korsakov) generally live in separate units within nursing homes. The respondents of this study were newly admitted to one of seven participating nursing homes. They had been living between 4 and 6 weeks in the nursing home, with the perspective of a permanent stay, at long-term care units for physically frail residents when the first measurement wave took place. Given the similarities in the design and aims of the study, inclusion criteria were based on the procedures of the Amsterdam Groningen Elderly Depression Study (Smalbrugge et al. 2006), a Dutch study on subjective well-being in units for physically frail nursing home residents using resident interviews: participants had to be aged 55 years and over, speakers of Dutch, without communication problems due to severe aphasia or hearing loss, and without severe cognitive impairment (Mini Mental State Examination Score >15). Ethical approval for the study was obtained from the Ethics Committee for Behavioral Scientific Research (ECG) of the Radboud University Nijmegen, which acts in accordance with Dutch legislation.

After receiving written information 150 newly admitted residents were visited with their permission—by the first author or a research assistant to explain the aim of the project and to answer questions about the study. After written informed consent was received interviews took place during which residents answered structured questions on *need fulfillment in general* and well-being as well as on socio-demographic and other personal characteristics. Next, residents were asked whether they were willing to participate in the observational study and if so, a new appointment was made for a video-recording. The video-recordings were collected during morning care, because that is the time of day which provides most information regarding the quality of interactions between residents and staff (van Weert et al. 2005). The recordings were made by the first author or one of two research assistants (master students in psychology) using a handheld camera. The first author has relevant clinical experience in the nursing home setting and supervised the research assistants.

During the video-recording the observers were discreetly standing behind a curtain or closet. Only episodes in which the resident and caregiver both participated were recorded and rated. The duration of these interaction episodes varied from 13 to 40 min, depending on how much help and care the resident needed. Some residents with fewer physical limitations for example were able to take a shower by themselves and only needed help with getting (un)dressed. Other residents needed considerably more assistance. Also shower and bath routines lasted on average longer than when a resident was washed in bed or at the washbasin. In order to get a complete view of the quality of

the care interaction, the episodes as a whole were rated. At moments when the resident was undressed, the video camera was oriented on the residents' head or on the caregiver. The residents could stop the video-recording at any moment, which was done, for example, when going to the toilet.

After morning care, the residents and caregivers were asked whether the video reflected a normal morning care situation. The majority experienced no differences compared to other days; only few (residents as well as caregivers) reported that the caregiver took somewhat more time for the resident this particular morning. Furthermore, some caregivers were a little nervous, but from their own reports and those of residents it seemed that this did not really affect their behavior during the video-recording.

Immediately after the video-recording a semi-structured interview took place about *need fulfillment during the video-taped caregiving* and *need fulfillment in the caring relationship* (i.e., on other days and with other nurses than during the video-recording). During this interview residents were asked about three topics: their experience of *autonomy*, *relatedness*, and *competence* during interaction with caregivers (see also measures: semi-structured interview).

Of the 130 residents who fitted the inclusion criteria, 75 residents gave written informed consent for participation in the first interview and 36 of them were willing to participate in the observational study. The current paper is about these 36 residents who participated in both the questionnaire and the observational study. The mean age of these residents (64 % female) was 80 years (range 55–93) and the mean MMSE-score was 23.4 (range 16–30). Main self-reported reasons for admission to the nursing home were stroke (33 %), (hip) fracture (22 %) and serious physical impairment “due to old age” (11 %). Further physical syndromes were cancer, rheumatoid arthritis, and Parkinson's disease. The participants of the observational study did not differ significantly from the group of participants that only participated in the questionnaire study in age [$M = 79.5$, $SD = 8.5$ and $M = 80.0$, $SD = 7.6$, respectively, $t(71) = .29$, $p = .77$], education [$M = 2.6$, $SD = 2.24$ and $M = 2.8$, $SD = 2.15$, respectively, $t(71) = .42$, $p = .68$], cognitive status [$M = 23.3$, $SD = 4.60$ and $M = 21.2$, $SD = 5.6$, respectively, $t(71) = 1.65$, $p = .10$], subjective health [$M = 3.1$, $SD = 1.12$ and $M = 3.3$, $SD = .92$, respectively, $t(71) = .83$, $p = .41$], need fulfillment in general [$M = 3.4$, $SD = .74$ and $M = 3.6$, $SD = .60$, respectively, $t(71) = .91$, $p = .36$], depressive feelings [$M = 2.6$, $SD = 2.31$ and $M = 32.1$, $SD = 2.23$, respectively, $t(71) = 1.0$, $p = .31$], and satisfaction with life [$M = 3.6$, $SD = 1.22$ and $M = 3.8$, $SD = .87$, respectively, $t(71) = 1.1$, $p = .26$].

Measures 1: questionnaires

Residents' need fulfillment in general was measured with the 21-item Basic Need Satisfaction in Life Scale (Gagne' 2003). The items were transformed into questions to facilitate the answering and were answered on a 5-point likert scale: (1) never, (2) rarely, (3) sometimes, (4) often, (5) always. Examples of items are: “Do you feel like you are free to decide for yourself how to live your life?” (autonomy), “Do you like the people you interact with?” (relatedness), and “Do people you know tell you that you are good at what you do?” (competence). The alpha coefficient for the total scale was .90. The average need fulfillment score across all items was computed with higher scores indicating more *need fulfillment in general*.

Residents' subjective well-being was measured using an affective and a cognitive-evaluative component, in line with prior work on this topic (Diener et al. 1999). The affective component was measured with the Dutch 8-item version of the Geriatric Depression Scale (GDS; Jongenelis et al. 2007). The GDS-8 contains items formulated in terms of positive and negative feelings and asks residents how they felt during the past week. Items were answered with “yes” or “no” and a sum score between 0 and 8 was computed with higher values indicating more depressive feelings. The cognitive component was measured with the Dutch version of the 5-item Satisfaction With Life Scale (SWLS; Pavot and Diener 1993; Steverink et al. 2001), in which residents are asked to evaluate their lives as a whole on a 5-point likert scale from “strongly disagree” to “strongly agree”. The mean across the five items was computed with higher scores indicating higher life satisfaction. In the study sample, alpha coefficients for the scales were .76 and .86, respectively.

Measures 2: video observations

The video observations were used to operationalize the perspective of the observer. As there was no tool available for observing caregiver-resident interactions from the perspective of self-determination theory we adapted rating scales on caregiver-child interactions which measure conceptually closely related constructs and have been proven fruitful in various studies (e.g., De Schipper et al. 2006). The resulting three rating scales for caregiver behavior (see Custers et al. 2011) measure the degree to which the caregiver contributes to the fulfillment of residents' three basic needs, i.e., relatedness, autonomy, and competence, during the total caregiving interaction. The scale *support of relatedness* reflects the extent to which the caregiver shows warm interest, makes conversation, and provides emotional support to the resident. The scale *support of autonomy* reflects the extent to which the caregiver respects the

residents' opinion, motives, and perspective, and supports the residents' choices concerning, for example, the clothes he or she wants to wear. The scale *support of competence* reflects the extent to which the caregiver supports the resident in carrying out the morning routine as independently as possible, by adequately structuring the situation and by supportive behaviors such as handing a towel or asking the resident to help with washing or shaving. The three caregiver scales are 7-point scales, reflecting the level of support provided for the resident's needs: (1) very low, (2) low, (3) moderately low, (4) moderate, (5) moderately high, (6) high, and (7) very high. Elaborated behavioral definitions of the scale points are given in the unpublished coding manual (Custers et al. 2009). For example, a very low (1) score on support of competence is defined as: "The caregiver gives no explanation or suggestions about the structure of the morning care. She starts without announcement and takes over all actions the resident is able to perform independently."

The videotaped interaction episodes were independently rated by two observers: the first author and a third master student in psychology who did not make any of the video-recordings. They had first been thoroughly trained together, using video-episodes from a former study, until reliability was reached. After watching an interaction episode, the observer rated the caregiver's behavior on the three scales, based on their behavior during the whole episode. Interrater agreement, defined as the percentage of interaction episodes for which the scores of both raters agreed within one scale point, was as follows for the three scales: 91 % for support of relatedness, 79 % for support of autonomy, and 82 % for support of competence. The interactions the observers disagreed on were observed once again together to determine the final ratings. A mean score for total need fulfillment was computed with higher scores indicating more observed need fulfillment.

Measures 3: semi-structured interview

Residents' perceptions of both *need fulfillment during the videotaped caregiving episode* and *need fulfillment in the caring relationship* were measured with a semi-structured interview using nine items (three items for each of the three needs), developed for the purpose of this study. In order to quantify their opinion on need fulfillment during the videotaped morning care and on need fulfillment during care routines on other days the residents were asked to rate the nine items twice on a 5-point likert scale: (1) no, absolutely not, (2) no, (3) partly, (4) yes, (5) yes, absolutely. Examples of items are (for the video-taped care): "Do you feel that you could make your own choices concerning, for example, your clothes?" (autonomy), "Do you feel that the nurse showed personal attention to you?" (relatedness) and

"Do you feel that the nurse stimulated you to do things yourself, like shaving or washing your face?" (competence). The alpha coefficient for the total scale on the videotaped morning care was .69. The same questions were asked about care in general, for example: "Do you feel that you can make your own choices during care?". The alpha coefficient for the total scale on the caring relationship was .77.

Results

Comparing resident and observer perspectives on need fulfillment

The first aim of this study was to compare the resident perspective on need fulfillment with the perspective of trained observers. Table 1 presents the mean scores for the resident and observer ratings of need fulfillment. The mean scores for the three resident self-ratings were between 3.6 and 4.3 which indicates, according to the scale descriptions, that residents experience the needs for relatedness, autonomy, and competence to be often fulfilled, both in general and, more specifically, in the caring relation and during the videotaped care episode. A repeated measures ANOVA showed that there were significant differences between the three need fulfillment ratings (Wilks' Lambda = .08, $F(2,34) = 193.83$, $p = .000$). Post hoc analyses (paired samples t-tests) showed that the ratings for need fulfillment *in general* were significantly lower than the ratings for need fulfillment *in the caring relationship* ($t(35) = 2.19$, $p = .035$) and need fulfillment *during the video-taped caregiving* ($t(35) = 8.15$, $p = .000$). The ratings for need fulfillment *in the caring relationship* were significantly lower than the ratings for need fulfillment *during the video-taped caregiving* ($t(35) = 7.50$, $p = .000$).

Observers rated the need fulfillment of residents to be 4.9 on a 7-point scale which indicates, according to the scale descriptions, a moderately high fulfillment. To facilitate the comparison of the observer ratings with the resident ratings, the 5-point resident rating scales were converted into 7-point scales. The average ratings of the residents on these 7-point scales are $M_{\text{general}} = 4.7$, $M_{\text{caring relationship}} = 5.0$, and $M_{\text{videotaped caregiving}} = 6.0$.

T-tests were used to compare these three resident self-ratings to the observer rating for need fulfillment during the videotaped caregiving episode. First, the ratings of residents and observers concerning the specific caregiving episode were compared and it showed that residents rated their need fulfillment *during the video-taped caregiving* significantly higher than the observers ($t(35) = 5.23$, $p = .000$). The comparison of the resident ratings of *need*

Table 1 Descriptive statistics, correlations, and intraclass correlations (in bold) among the study variables ($N = 36$)

Variables	Mean	SD	Scale	1.	2.	3.	4.	5.
Need fulfillment								
1. General (R)	3.6	.62	1–5	–				
2. Caring relation (R)	3.8	.69	1–5	.56**	–			
3. Videotaped care (R)	4.3	.48	1–5	.49**	.67**	–		
4. Videotaped care (O)	4.9	1.05	1–7	.38*	.20	.23	–	
				.38*	.20*	.22*	–	
Well-being (R)								
5. Depressive feelings	2.47	2.24	0–8	–.56**	–.23	–.28	–.19	–
6. Satisfaction with life	3.60	1.21	1–5	.49**	.23	.16	.26	–.68**

R Resident-rated, O Observer-rated

** $p < .01$; * $p < .05$

fulfillment in general and *need fulfillment in the caring relationship* with the observer ratings demonstrated no significant discrepancies ($t_{\text{general}}(35) = -1.10, p = .121$; $t_{\text{caring relationship}}(35) = -.64, p = .528$).

The correlations between the four measures of need fulfillment according to the residents and the observers are presented in Table 1. The intraclass correlations are reported to provide an assessment of agreement between resident and observer measures. The three resident measures of need fulfillment were significantly and moderately inter-related, with the highest correlation between need fulfillment *in the caring relationship* and need fulfillment *during the video-taped caregiving* and the lowest between need fulfillment *in general* and need fulfillment *during the video-taped caregiving*. Furthermore, the table shows only a weak to moderate association between resident and observer ratings concerning resident need fulfillment. The correlation between resident and observer ratings with regard to the same *video-taped care episode* was not significant, just as the correlation between the observer ratings for the *videotaped care episode* and the resident ratings for *the caring relationship*. Remarkably, the observer ratings of need fulfillment *during the video-taped care* did show a significant correlation with the resident ratings for *need fulfillment in general*.

Relating need fulfillment to resident well-being

The second aim of this paper was to investigate the relation between each of the need fulfillment measures and residents' subjective well-being. Table 1 shows the correlations between the four measures of need fulfillment and the two measures of resident well-being. As shown in the table, only the residents' self-rating of need fulfillment *in general* is significantly correlated with their depressive feelings and satisfaction with life. More need fulfillment is related to less depressive feelings and more life satisfaction.

Although not significant, the other two resident measures and the observer measure show similar correlations with resident well-being. Because the four need fulfillment measures were inter-related, partial correlations were also calculated for the relation between need fulfillment in general and well-being. The correlation between need fulfillment in general and depressive feelings decreased from $-.56$ to $-.52$ ($p = .002$) and the correlation between need fulfillment in general and satisfaction with life decreased from $.49$ to $.41$ ($p = .02$), when controlling for the other three need fulfillment measures.

Discussion

The purpose of the study was to compare the perspectives of nursing home residents and trained observers concerning resident need fulfillment and to investigate which measure of need fulfillment is related most to the subjective well-being of residents. The results show that there is weak to moderate agreement between resident and observer ratings and that residents tend to rate their need fulfillment higher than observers, when both rate need fulfillment in the same caregiving episode. These findings are similar to the findings from studies that compared the perspective of residents with dementia and trained observers concerning different aspects of quality of life (Edelman et al. 2005; Sloane et al. 2005). Interestingly, the more specific the questions were concerning the relationship with staff, the more positive the ratings from residents were. Furthermore, the most general need fulfillment measure was best related with the observer measure, whereas the latter measures need fulfillment in a very specific situation. Besides, the only measure to which residents' subjective well-being was significantly related was general need fulfillment.

A question that now rises is what might explain the discrepancy between resident and observer ratings of

resident need fulfillment. Whereas other studies focused on people with dementia and therefore can question the reliability of resident ratings due to impaired cognition, this explanation is less plausible in our sample of somatic residents. The relative independence of the resident and observer ratings of need fulfillment in the same videotaped caregiving episode was most remarkable. It seems that residents and observers interpreted the same situation rather differently, just as in the case observation at the beginning of this paper. It is likely that the low correlations reflect a real discrepancy in the way residents and observers perceive fulfillment of autonomy, competence, and relatedness as aspects of quality of life.

Furthermore, the residents rated their need fulfillment higher than observers when judging the same situation. A general explanation for this finding could be the so called “happiness barrier”: the tendency of the people to present their lives satisfactory to other people and in particular researchers (Roos 1988). This could especially be the case for older adults, because in general they have a positive and optimistic view of their life, which Marcoen et al. (2007) formulated as follows: “Older people by and large impress by their ability to master negative emotions and present a positive face to the world” (p. 55). An explanation that follows from this observation can be found in the use of cognitive strategies by older people, in this case nursing home residents, which help them to adapt to a new situation. It is not yet clear at what exact moment the process of adaptation starts and ends but from previous research it is known that the first month in a nursing home is a period of adaptation (Tobin 1989). The residents from our study were living for between 4 and 6 weeks in the nursing home at the time of the present study, but most of them had already been in a hospital or received another form of residential care. Although it has not been investigated yet, and it certainly should be a direction for future research, our experience is that people start anticipating to the nursing home situation as soon as the decision is taken to move to a nursing home. It seems that they lower their expectations concerning for example levels of choice, which could explain their high levels of self-reported need fulfillment. This phenomenon of changing cognitions to feel better and more in control about a particular situation is well-known and described by different authors (e.g., Brandtstädter and Rothermund 2002; Heckhausen et al. 2010; Festinger 1957). In the example situation the resident seemed to say that having another sandwich is not that important to him, which may be an adequate cognitive reaction to a situation in which there is low control.

Another important aspect of the transition to living in a nursing home is a possible change in residents’ identity. Research has shown that older people internalize stereotype views like low competence (Levy 2003). This could create a change in identity from “independent person” to a

typical “nursing home resident” with high dependence on others. People who see themselves as dependent persons will probably rate their need fulfillment in a different way than people who see themselves as autonomous. Observers consider the nursing home situation from their own perspective as healthy and independently living adults and thereby do not take possible adaptation processes into account, which might explain the differences between residents and observers.

Furthermore, the existence of power relations in the nursing home might be a possible explanation. Care interactions elicit low control due to the dependent position of residents, which might make them reluctant to be critical. Hesitance to complain or criticize care is also reported in previous studies (e.g., Custers et al. 2010; Mozley et al. 2004). A study by Persson and Wästerfors (2009) showed that when residents complained, staff members trivialized these complaints: Complaints were considered as unimportant and also treated that way.

The possible reluctance to be critical could also explain our remarkable finding that resident and observer ratings of need fulfillment during the videotaped caregiving were unrelated, whereas the resident rating of need fulfillment in general did show a relation with the observer ratings of need fulfillment during the videotaped caregiving. Residents might evaluate the relationship with staff in this general need fulfillment measure (staff forms a major source of contact and possibilities for need fulfillment), whereas they are reluctant to evaluate this relationship when directly asked. In sum, the differences between the resident and the observer perspective in our study could be explained by the “happiness barrier”, cognitive adaptation processes, changes in identity, and power relations.

Regarding the second aim of this study, it can be concluded that the resident rating of *need fulfillment in general* is the best predictor of their subjective well-being—in particular of the affective component of well-being. Although not every resident may have other social relations besides staff (for some the caring relationship is the most important source of communication), probably most residents take need fulfillment in different situations, with different persons (family, friends, staff, and other residents) into account in this general measure. Therefore, this broader measure is more likely to be related to their subjective well-being than the specific measures of need fulfillment within the caring relationship.

Although the sociodemographic characteristics of our sample are comparable to those of a large Dutch survey sample in somatic nursing homes (den Draak 2010), a limitation of this study is the relatively small sample size. This can partially be explained by the use of video-recordings during morning care. Many residents who were asked to participate in the study were reluctant because they did not

want to be recorded on videotape. Besides the reluctance to participate in the video-recordings by residents, this method might have influenced the behavior of the caregivers by social desirability. However, video-recordings are often being used in nursing research and practice and it is mostly stated that biases are limited: caregivers seem to quickly adapt to the presence of an observer (Caris-Verhallen and Kerkstra 1997; van Weert et al. 2005).

Another limitation lies in the fact that we used a newly developed instrument for measuring resident need fulfillment in the caring relationship. The significant but moderate inter-relations between the three different resident need fulfillment scales and their differential relationships with the well-being measures support their validity and the assumption that they measure different aspects of the same construct (i.e., need fulfillment). However, additional research is needed to further establish the psychometric properties of this newly developed instrument.

In this study we compared the perspectives of residents and trained observers. For future research it would be interesting to also take the perspective of staff into account. Their perspective possibly differs from the trained observer perspective due to the fact that they are actors as well as observers in the same caregiving situation and they know the residents and their backgrounds. According to previous studies perceptions of staff and residents concerning quality of life do not correspond (e.g., Spector and Orrell 2006). It is of importance to bring the different perspectives into dialog to optimize caring relationships. However, the first step to optimize the caring relationship and resident well-being should be to gain more insight in the perspective of residents concerning those aspects of their lives that they consider important. Standardized questionnaires might be a limitation because of possible social desirable answering. Therefore, one way to find out more about their needs, wishes and experiences could be to also invite residents in an open interview. During a confidential conversation with no standard questions and answering options they should feel safer to talk about what they like and dislike in the caring relationship. Furthermore, focus groups in which residents can react to each other and complement each other could be an option. During interviews or focus groups video recorded episodes could be watched and discussed to assess how residents judge aspects of interactions between staff and residents. Making use of different methods can lead to mutual validation of research findings as well as a more complete picture of aspects of the life of nursing home residents (Kelle, 2006).

In the current study we investigated the psychological well-being of nursing home residents. Other aspects of resident well-being, in particular their physical well-being, are of great importance and should certainly be investigated. In a previous study it was found that need fulfillment contributes to

depressive feelings and life satisfaction, also when controlled for subjective health, pain, and functional limitations (Custers et al. 2010). Furthermore, in this study we mainly focused on need fulfillment in the relationship with staff. The caring relationship is a crucial factor in the support of residents' needs, but can only be seen in a broader context: the systemic character of a nursing home should always be taken into account (see, e.g., Bronfenbrenner 1979; Moos 1976). A lot of other factors, including characteristics of the residents and the staff members, the culture of the nursing home and the care system of a country might play a role in the need fulfillment of residents.

Taken together, the resident rating of need fulfillment *in general* had the strongest relationship with observer ratings of need fulfillment as well as with the residents' subjective well-being. Furthermore, the more general the questions were, the less need fulfillment was reported. It seems that broader judgments of need fulfillment are more valid in predicting resident well-being than specific judgments. However, we need specific information from residents to individualize care. There seems to be a paradox in person-centered caregiving: The residents and their needs should be central, but because residents might not immediately reveal their real needs it is hard to assess these. It is important to take this into account in future research as well as in the daily nursing home practice. In daily practice it is important to find ways to discover residents' needs. Due to the dynamic system of the institution these needs are always under construction and possibly change as a result of for instance the described adaptation processes and the development of relationships with staff. Therefore, the assessment of residents needs should be a recurring activity. In one of the nursing homes that participated in this study, monthly dates between a caregiver and a resident were initiated in the restaurant of the nursing home. The caregivers were instructed to ask the residents about their needs and wishes during a meal together (which already enhances relatedness). Shortly after admission these questions will mostly be about adaptation to the new situation, differences with living at their own home and important routines the resident prefers to keep. Agreements that are made concerning wishes of the residents should be reported to the other caregivers of the nursing unit. It is important to evaluate the fulfillment of needs and wishes at a regular basis and to offer staff concrete advice on how to realize a supportive caring relationship with respect to relatedness, autonomy, and competence.

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