Peer-reviewed | Manuscript submitted: October 19, 2017 | Revision accepted: March 23, 2018

The catering situation in institutions for older people¹

Results of qualitative interviews in institutions with and without "DGE Quality Certification"

Ulrike Pfannes, Rowena Alber, Ulrike Arens-Azevêdo, Dorothee Volkert, Carina Burger, Eva Kiesswetter

Abstract

In the course of evaluating the DGE Quality Standard (QSt) for Catering in Institutions for Older People for the 13th Nutrition Report of the German Nutrition Society (DGE), a qualitative substudy was conducted – the results of which are being published for the first time. A total of 30 care facilities for older people from across Germany participated in the qualitative personal interviews (catering managers, nursing managers and residents' representatives).

In DGE-certified care facilities the certification process up to auditing was evaluated in line with the QSt (certificate "Fit in Old Age"). The preparation phase for certification contains hurdles, e.g. in food selection and acceptance of meals, but it is possible to overcome these. There are indications that certification has a positive effect on catering quality. After certification benefits were seen in terms of food appreciation, staff qualifications, process optimization and competition advantages. Audited institutions recommend certification. Non-certified care facilities had reservations about how to implement the DGE-QSt.

Independently of certification, various challenges were identified for the institutions with regard to catering, e.g. staff shortages, catering budgets, time pressures, achieving a high level of satisfaction among residents. In terms of interface management between kitchen/housekeeping and nursing, problem areas were identified in day-to-day catering, but also specific success factors for cooperation and communication, including mutual respect and collaboration. The results of the study are intended to form the basis for further development of the QSt.

Keywords: mass catering, care catering, nursing home, institutions for older people, long-term care facilities, DGE Quality Standard, DGE quality certification, interfaces, nutrition management

Citation:

Pfannes U, Alber R, Arens-Azevêdo U, Volkert D, Burger C, Kiesswetter E (2018) The catering situation in institutions for older people. Results of qualitative interviews in institutions with and without a "DGE Quality Certification". Ernahrungs Umschau 65(6): 100-110

The English version of this article is available online: DOI: 10.4455/eu.2018.024

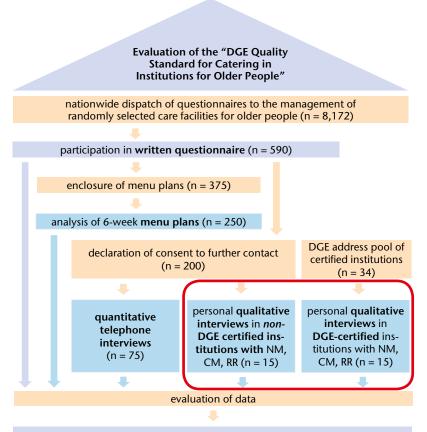
Introduction

In the 13th Nutrition Report by the German Nutrition Society (DGE) the DGE Quality Standard (QSt) for Catering in Institutions for Older People, which was developed in 2009 in the course of the national action plan "IN FORM – Germany's initiative for healthy eating and exercise", was evaluated for the first time [1]. The basic goal was to establish the scope, acceptance, suitability and implementation of the DGE-QSt and its effects. A mix of quantitative and qualitative research methods was used. The nationwide survey incorporated 4 pillars with various quantitative and qualitative instruments (Figure 1). The fourth pillar - the qualitative approach - will be explained in detail in the following article.

Methodology/design of the qualitative study

In the fourth pillar, personal qualitative interviews were conducted in 30 institutions for older people. The qualitative research [2-4] is intended to enable consideration of additional viewpoints on catering practices in such care facilities: the goal was to go deeper and discover the background and views of various involved parties (◆ Figure 2).

¹ With support from the German Federal Ministry of Food and Agriculture (BMEL)



recommendations to further develop the DGE Quality Standard and improve the catering situation in long-term care facilities for older people

Fig. 1: Flow chart and survey instruments for the nationwide research project to evaluate the "DGE Quality Standard for Catering in Institutions for Older People" [1]

DGE = German Nutrition Society; CM = catering manager; NM = nursing manager; RR = residents' representative

The study focused on comparing the situation in DGE-certified and non-certified care facilities and the DGE certification process itself.

The goal of this qualitative substudy was to evaluate the following aspects:

- the certification process for achievement of the DGE-QSt
- the effects and benefits of the DGE-OSt in care facilities with DGE certification
- the catering situation with regard to interface management, communication, everyday challenges and the wishes and satisfaction of residents.

Recruiting and characteristics of the institutions: The non-certified care facilities were selected as a random sample of all the care facilities which had consented to further contact in the course of completing the written questionnaire (n = 200) [5]. The pool of DGE-certified care facilities consisted of 34 facilities, of which 12 were independent and 22 belonged to larger operators. In order to avoid specific characteristics of particular funders, as few facilities as possible were included with the same operators. The intention was to include a consistent random distribution - 3 certified and non-certified care facilities per region (North, East, North-Rhine Westphalia, Central, South) - although the uneven distribution of certified care facilities in Germany meant that this was not possible.

Guideline-supported interviews were conducted in 15 care facilities which had been awarded the DGE certificate "Fit in Old Age" ("Fit im Alter") and in 15 non-certified facilities. The interview guideline was subjected to pre-testing in advance. In each institution separate interviews were conducted with the nursing manager (NM), the catering manager (CM) and a residents' representative (RR). These were recorded on a digital dictation machine. In one care facility transcripts had to be used since the recording of conversations was prohibited. A period of 45 minutes was scheduled for each individual discussion. In addition, the facility directors of every institution completed a standardized questionnaire on the structure of the facility for the purpose of characterizing the institution. The visits also included a tour of the dining area during a meal with residents' representatives; this gave interviewers² the opportunity to gain a personal impression of the care facility beyond the interviews themselves.

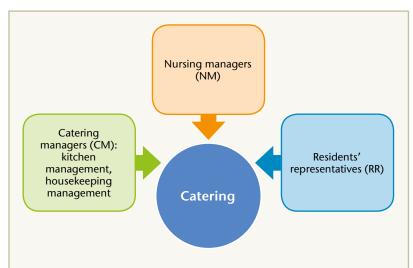
For evaluation all the interviews were transcribed in a simple transcription system using the software program F4, structural analysis was done using MAXQDA 10 in line with qualitative content analysis according to MAYRING [4] and the results summarized.

Selected results of the qualitative study

DGE certification

The majority of the certified institutions were certified on the basis of the "Fit in Old Age" certificate, two institutions held "Fit in Old Age PRE-MIUM" certificates which also include assessment of the nutritional

² The interviews were conducted by two persons holding university qualifications in nutritional science and home economics.



Catering managers (CM): kitchen management/housekeeping management:

- specialist responsibility for catering service
- information on purchasing, range, planning, production to serving of meals, resident preferences

Nursing managers (NM):

- specialist responsibility for resident-based nutrition management
- information on meals, consumption of food, nutritional status of residents, residents' wishes

Residents' representatives (RR):

- service recipients: persons directly affected by the quality of food or catering, target group of the activities
- information on residents' satisfaction with the quality of processes and results, significance of meals, preferences

Fig. 2: The interviewees

value of the recipes. The certification process in all institutions was conducted as shown in ◆ Figure 3.

The motivation for obtaining certification came mainly from household and kitchen management, the operator or the facility director. The funding for certification sometimes required an extra budget from the funder or the facility. The DGE-QSt was in most cases introduced separately by the housekeeping or kitchen

and only partly incorporated into the internal quality management system of the facility or the internal nutritional management.

Evaluations of the catering managers: kitchen/housekeeping management

The preparation period was between 6 months and one year. Preparatory tasks in the kitchen included constant adjustment of menu plans and purchasing, and improvement of recipes. Other preparations were process changes, less frequently new purchases and the recruitment of new nutrition specialists. The CMs integrated and instructed to some extent the nursing staff and the residents. In this preparation period CMs used some DGE advisory information in the form of DGE seminars, in-house training or individual consultations. For some of the CMs the initial consultation and information pack was sufficient preparation for the audit. In terms of implementation the CMs mentioned various hurdles which are presented below.

On the one hand these related to the food choices required by the DGE-QSt. CM (ZM11): "Well it was certainly a long process that wasn't easy, I would say that. But we are actually glad we implemented it. It works" 3

CM (ZM21): "When we started with DGE initially of course it was a case of: For goodness' sake, at our age we don't want to have to eat grain anymore! Then we did various projects with cook apprentices and we looked to see where we could, well, where we could incorporate healthy and important foods so that the residents could actually enjoy them. So, about a year ago now we introduced a snack, so there is, for instance, a buttermilk drink which it's really easy to puree fresh fruit into - everyone can chew and swallow that; we put whole grain into the soup now for instance in the form of spelt dumplings, oat dumplings, if it's finely milled and it it's soft, it is a bit of a challenge, fulfilling these criteria for certification and still keeping the residents happy. [...] What is also

³ Original citations: see German article in Ernährungs Umschau 6/2018



Fig. 3: Procedure for DGE certification "Fit in Old Age"

Subsequent

recertification

audit for

more difficult, particularly in the old people's center here, is the raw products, uncooked foods. [...], because they can't chew them so well."

Residents' acceptance of the DGE-certified menu lines was achieved step by step over time and was incorporated into the certification process itself.

CM (ZNRW41): "Well, I personally started here in the nursing home gradually [...] so by writing down whole meal pasta and whole rice. [...] Or I made sure that there was always fruit in the mornings [...]. Or [...] changing the fish day so there was fish on two days. [...] Just so that it isn't so hard when it gets started. So that the residents can get used to it and we can too."

In addition, the adjustment of working processes caused some problems. CM (ZNRW1): "One major challenge was keeping to the time limits for keeping food warm. It was mostly ok before, but some dishes are just more complicated, so we needed more time. There the challenge was really changing the attitude of the chefs. We actually organized the shifts so that it just wasn't possible for them to start cooking before 8:30/9:00."

The initial audit went as expected for the kitchen/housekeeping in all cases. The auditors were described by the CMs as diligent and practice-oriented. Unexpected situations arose in isolated cases due to enquiries about recipes and incorrect implementation of work instructions by staff. After the initial audit was passed, improvement measures were very often necessary before the subsequent audit, e.g. adjustment of the frequency of foods, creation of breakfast and evening meal menu cards with the DGE-certified menu line, further training of staff and informing of residents. The care facilities affected reported that the subsequent audits went smoothly. In all cases only the CM was familiar with the audit report and those respondents described the audit report

as both clear and understandable. CM (ZO21): "Well the audit report itself was written so that anyone could understand it. [...] The schedule of measures that went with it was good because we ourselves could define the action plan. [...] Yes, in terms of the certification process it was very transparent, a very pragmatic process." CM (ZM21) stated that the criticisms and establishments in the audit report were "discussed in a final meeting very logically and clearly."

Evaluations of the nursing managers Due to lack of communication or involvement of nursing staff in DGE certification, this group was not able to contribute much in the way of experience. Preparation was limited to optimizing the quality of "living environment" in the lounge areas. The few NM involved evaluated the audit situation as cooperative. Improvement measures involved revision of the nutrition biography in only one case.

Few institutions linked the DGE-QSt to the quality management system. One NM was planning to link the DGE-QSt with the DNQP Standard on Nutrition Management [DNQP = German Network for Quality Development in the Care System] [6]:

NM (NS32): "[...] Well we are doing that, we are in the middle of it now, [...] revising [...] a new catering management concept."

The vast majority of nursing managers saw a basic opportunity in the linking of the DNQP Expert Standard on Nutrition Management with the DGE-QSt, but voiced doubts about feasibility.

NM (NO32): "[...] Yes that would probably be not too bad if that was stipulated, [...] because nutrition does play a major role."

NM (ZN12): "Well [...] the two do go well together and of course it can be incorporated into the nursing routine. [...] It's just that for me of course the wishes of the residents are what counts."

NM (ZO12): "[...] the nutrition management standard itself tells me I should just try and do something positive for the resident, so to be able to offer him oral nutrition or food and drink that gives him sufficient nutrients and that he likes. I just see the points of conflict in terms of standards [...] with the topic of dementia. [...] I don't want to be constantly confronted with the subject of healthy eating. Well it is an important issue, but it is often overemphasized. The fact that there is a healthy nutritional balance on offer, we are agreed on that and [...] that the food is also varied. So then there should be a perfectly normal attitude to food and drink."

NM (NO42): "[...] Here I can well imagine that implementation will be complicated in practice and create a lot of fuss, because everything has to be documented. [...] But the implementation, when I see the care staff, everything they would have to plan and that would be more work I think."

One NM from a certified care facility rejected the linking of the two standards.

NM (ZO22): "No, I wouldn't see it that way because as I said, first of all it is all on a voluntary basis and we have found that, for instance, especially with "Fit in Old Age" this menu line, the lunches are actually very popular, but with the other meals it is all to do with the fact that the products offered are not actually very suitable or popular with the old people. [...] there are products there that the elderly just can't eat due to their consistency."

As a hurdle to implementation of the DGE-QSt, the NMs often mentioned the difficulty of coordinating the demands of a catering standard with the individual wishes of the residents as regards their taste preferences and the necessary consistency of the food (e.g. in the case of raw vegetables, whole grain, meat). NM (ZO22): "It's these grain products, so some sort of added grain in salads, in bread, on the rolls, on whole meal rolls, or whatever. They [the residents] can have quite a problem there if, for instance, their dentures don't fit

so well or they don't have any dentures. But it's also the products that are on offer, like plain whey and the taste is just not something that appeals to residents. So there are products here that they just don't like or that they really can't chew."

Changes in the eating habits of residents also play a role:

NM (ZN22): "It used to be that these were just offered to whoever wanted them, whole foods, so grains, and then there were residents that had got used to eating these grains. [...] Or crisp bread. In the afternoons there was also crisp bread. They kept that too. Some people do eat crisp bread because they like it now."

Evaluations of residents' representatives

The residents and their representatives were generally unaware of the DGE certificate or they hadn't really taken note of it. Or although a sign at the entrance or a "Fit in Old Age" symbol on the menu had been noticed, the following comment was made:

RR (ZNRW13): "I don't think they really notice that. [...] They are well and they are happy [...]. A symbol like that doesn't really have any value to them."

Effect and benefit of DGE certification

Certification can have an effect both internally and externally.

Internal benefits mentioned by both the CMs and the NMs were improvements in the quality of processes and results and a greater choice of food. The facility director (ZM15) pointed out: "[...] [that] the whole production process in the kitchen, even knowledge of the products and production, is considerably improved."

NM (ZO22): "The meal situation has changed because the staff is trained, they are all sensitized by this training. So that the situation at lunch, in general at mealtimes, is dealt with so sensitively that it becomes a highlight for the residents. So, the fact that it is not just a case of clean, dry, fed. This should be within a particular

framework and it should be recognizable through the quality afterwards."

Receipt of DGE certification signaled greater respect for staff.

CM (ZNRW41): "[The employees are] proud of what they have done, [...] [it has] something to do with recognition, [...] we have achieved this now, that was also down to our efforts."

CM (ZNRW11): "So that means that status was already high and the fact that we managed to put a project like this into effect [...] that just means that it got a little higher."

NM (ZO22) mentioned positive effects on multidisciplinary teamwork: "It has intensified cooperation with the kitchen a bit, [...] the fact that the dietitians are consulted, that even the staff recording nutritional requirements get involved and offer explanations if someone really has no idea about it [the DGE menu line]."

There were isolated reports of positive health benefits on residents; NM (ZN22): "[...] so before certification everyone just ate what they liked and what they wanted. And [...] during certification they got food with ideal nutrients and residents stopped gained weight, they spent less time in hospital. That is what we noticed. And their skin too, they didn't get severe bedsores." On the subject of other health-conscious residents who voluntarily selected the "Fit in Old Age" options, CM (ZM11) said: "She feels fitter since she has been eating this. [...] One lady is totally delighted [...], and for one lady it has also lowered her cholesterol levels."

In around half of the certified care facilities DGE certification had no internal effects. Two main reasons were stated for this: a previous high standard of catering and non-standard implementation of the DGE-QSt after passing the initial audit.

CM (ZN41): "[...] not much has changed for us. We already had high standards. So we had a lot already, we already had a lot of the stuff that was

specified in there. That's why there wasn't much that was new for us." NM (ZN12): "[...] are criteria that have to be fulfilled to get the certificate. And they were fulfilled for a while and then somehow it has all fallen by the wayside again. And I think that I should try to carry it on."

a change in resident satisfaction due to DGE certification. In isolated cases there were more complaints, e.g. NM (ZN22): "The residents' advisory board wasn't that pleased with the certification, PREMIUM certification, because they say then it is standardized. [...] Now they have got used to it, because we have the normal certificate,

now this works too. [...] they actually

complain more."

There were various evaluations as to

The relevant RR (ZN23): "I was quite critical at first, but it has actually worked quite well and it has been well accepted too." Most of the respondents reported an unchanged level of satisfaction, e.g. CM (ZN31): "The residents are still satisfied. [...] Because there was already a wide range of foods beforehand." The RR from the same facility commented (ZN33): "Yes, there is even more fruit offered now." On the subject of the DGE logo, the RR stated (ZN23): "Yes, I would say we have deserved it. That it's justified."

As regards the catering budget there were different assessments among the CMs interviewed.

CM (ZN31): "Well the whole DGE concept, if you want to implement it like this, or you have to, it is definitely more expensive in the end. You certainly need more, you have to have more money available. [...] previously it was €4.40 to €4.60 and now it is at € 5.00. So, 30 to 40 Cents have been added on top, [...] because this implementation was more cost intensive than I had imagined."

CM (ZNRW21): "We have a bit more wastage. [...] But at the end of the day it is manageable [...]. But as long as we can manage with the budget we will do it like this. Well, I would say that we could save money elsewhere [...]." CM (ZN21): "This created a great deal of food wastage because they [the residents] just didn't eat it."

External effects were seen or expected with regard to marketing, competition and image as a result of publicity work. Facility director (ZM15): "When the home has a seal like this and fulfills the DGE standard, then it is facing up to the external requirements, representing to the outside in a consumer-oriented or customer-oriented way, that it has a special marketing feature with its catering. And this external presentation is extremely important for marketing the company. Since we have had good food and a certified restaurant we have been advertising that very intensely. [...] If the food is excellent and there is a lot going on in terms of catering, there is a great atmosphere, there are lots of events. Food is also just pleasure and joie de vivre and quality of life. If that is there, then it brings a good reputation and a better occupancy rate in the home."

In terms of advertising benefits CM (ZNRW21) stressed that: "And for us it is also an advertising advantage [...] because we have competitors."

For NM (ZO22) the DGE logo meant "a little unique feature to the outside." CM (ZO21) stated: "that you can make a different impression in advertising material in comparison to other customer areas, you can make a totally different offer. That is noticeable. That is a goal too in the end, to be able to present a broader range on the market."

As far as the food control agencies and Health Insurance Medical Service (Medizinischer Dienst der Krankenversicherung [MDK]) is concerned, there were no effects on inspections in the audited institutions. CM (ZNRW 21): "The MDK noted it, but that was all."

Recommendation of DGE certification by catering managers and nursing managers

All catering managers recommended the DGE-QSt "Fit in Old Age" because processes were optimized and greater value was placed on healthy eating. Implementation of "Fit in Old Age PREMIUM" certification was however seen as difficult and not recommended. Collaboration with the German Nutrition Society (DGE) was predominantly seen as positive. For interested parties CM (ZNRW21) recommended: "[...] I would always [...] have a look with the checklist first: Where are we now? Where is there a lot of work still required? Then I would tackle that first and then I would look and say: Okay, we can do that in the year now."

CM (ZO21) drew the following conclusion: "It [has] boosted the kitchen in every respect. [...] in terms of offer features, that you can make a better impression on the market. On the other hand our employees also have a far greater wealth of experience [...] and [...] in terms of work procedures, technical matters and also [...] to the outside that certainly has its benefits. It was definitely a positive decision." CM (ZNRW11) said of the focus on nutrition: "awareness of nutrition was brought to the forefront of the mind. [...], it was simply given a higher status."

All but one NM recommended achieving certification because even with the DGE-QSt residents' wishes could be fulfilled through options. In addition, the quality of processes and results were improved which could be used for external advertising. The effort involved in maintaining DGE certification was described by one NM (ZNRW52) as "relatively little effort." Another NM (ZO22) expressed the wish "that they [the DGE] would bring it much more into the public eye, that it would be in the media. Then we would also get something out of it."

Rejection of DGE certification

The 15 non-certified institutions for older people were asked about the barriers to achieving DGE-QSt certification. The general reason given against certification was an unfavorable cost-benefit ratio, good occupancy rates in the facility and the fact that other certificates were held. NM (NM22) commented that: A certificate "should be a quality feature and that should be rewarded as such [from the nursing insurance funds] because it does cost money."

The view of catering managers

Almost half the CMs from non-certified care facilities knew the content of the DGE-QSt and most described partial implementation. They identified a discrepancy between the required choices and frequencies of foods and the wishes of residents; insurmountable costs and difficulties with integration into existing work processes, particularly in the case of external meal deliveries.

CM (NN21): "And in my opinion certification is not practical. You are so restricted in what you can offer residents. That is what I feel, that [...] the individual needs of residents are paid too little attention."

Criticism of the choice of foods was expressed by one CM (NNRW21): "In my opinion [...] the whole grain requirements set by the DGE, so the fiber proportion, is very theoretical and not possible in practice. [...] what we offer here is simply not accepted [...] the quantity of salads and raw vegetables that we offer here that we just end up throwing away, that is sad. The clientele that we have here just can't cope with that type of food. So, you can offer as much millet and spelt and whole meal flour and dark rice as you want, it will be criticized every time. We don't even put it on [the menu] anymore. [...] if you want to get the seal you have to work with these menus [...]. I find that very difficult [...]."

Some operators are not prepared to bear the costs of certification. CM (NS21): "Everything that costs money in these matters is avoided."

Organizational hurdles set by external service providers were mentioned by CM (NNRW11): "[...] one item in the standard is staff planning, interfaces and the like. [...], but for this concept that is very difficult to imple-

ment. There is just not enough time or the relevant employees for that." A CM who wasn't familiar with the DGE-QSt had the following impression of it: CM (NN11): "Firstly, that all the needs of the residents are fulfilled, calories and vitamins, minerals and whatever else, and that those are all covered. Secondly of course that there is visual appeal. [...] you eat with your eyes too, so it should always look nice. And something like this has to be monitored too, so the fact that this standard is complied with. [...] Yes, I think something like this would be very positive because it would be the cornerstone of quality [...]."

The view of nursing managers

In the group of nursing managers, non-awareness of the DGE-QSt dominated. Their focus was self-determination of residents and they saw less benefit in a QSt. The majority had reservations about DGE certification because of the difficulties in standardizing residents' wishes. NM (NO12): "Yes, because I think we should just also try to cater to the residents very individually and that does not always correspond to the currently valid and scientifically founded [...] concept of a meal. [...] They [the residents] have no use for these new rules or scientific standards of what makes up a good meal."

Another misgiving was expressed by NM (NO22): "That you have to do even more documentation. [...] And that that would mean more work than benefit." A small proportion of the respondents expected a certificate to offer the benefit of positive effects on catering quality with the possibility of external presentation, because according to one NM (NS12): "[...] it is an issue that is of interest to the relatives."

The view of the residents

Only a few of the residents' representatives commented on certification in line with the DGE-QSt. For RR (NS33) it is "not important."

The skeptical attitude of the RR (N033): "Well I don't know if there is any point. Look, everybody here has dementia. There are only about two or three left who can still think a bit. The others can't really understand [...] what a certificate is supposed to be for." The positive opinion of the RR (NO13): "In my view it certainly can. So I would even defend it, because it had a positive impression of the catering there."

RR (NNRW33): "I would certainly value that, but actually I wouldn't know what could be done differently here."

The effect on relatives was mentioned by RR (NN33): "The [certificate] wouldn't be a bad idea [...] when the relatives go on holiday they bring them here and they like it."

Challenges in day-to-day catering General challenges

All interviewees from kitchen and housekeeping and the nursing managers were asked about the general challenges of everyday working life. A few residents also talked about this and, without prompting, mentioned challenges for the kitchens and nursing staff. In general, these comments were similar, regardless of DGE certification.

The following topics were mentioned as challenges for kitchens and housekeeping:

- the catering budget,
- staff problems,
- volume of work and time management
- resident satisfaction,
- spatial conditions and kitchen equipment and
- implementation of legal requirements (esp. hygiene).

Challenges for **nursing staff** were: staff shortages, the associated volume of work and time management. Furthermore, the budget, nutrition management, special dietary requirements and food hygiene when residents were involved also presented problems in day-to-day working life.

The residents' representatives could see the following challenges in the care facilities: staff shortages, e.g. in conjunction with delay of mealtimes, and limited choice of food due to catering budgets. Besides these general challenges, interface management of the involved parties is also of great importance with regard to food and drink. This topic is tackled in more detail below.

Challenges at the interfaces between kitchen and nursing

Catering is a joint task with separate responsibilities between the sectors of nursing and kitchen/housekeeping. Good cooperation is needed to ensure that the required process and result quality is achieved. In terms of interface management there were no significant differences between certified and non-certified institu-

In most cases there was a clear distinction of tasks between nursing and kitchen/housekeeping as regards the catering. The kitchen or housekeeping was generally responsible for menu planning, preparation and distribution. The nursing staff assumed direct responsibility for supporting the residents and for documenting the nursing care, including food preference notes. In small care facilities or establishments with a joint living concept the housekeeping staff on hand frequently also assumed responsibility for food preference notes and documentation as well as service.

Although in the interviews the good collaboration between kitchen and nursing was always mentioned explicitly, there were indications of difficulties between the interface partners (kitchen, housekeeping, service, nursing). The following issues were mentioned specifically:

1. Appreciation and hierarchy

Within the traditional hierarchical structures, the nursing sector considered itself superior.

NM (ZNRW52): "One thing that still happens, sometimes it's a little as if [the] nursing [sector] thinks 'We don't need to be told anything by housekeeping [incl. kitchen]' and housekeeping says, 'the nursing sector is holding us back'. That's not going to change for the next 1,000 years."

CM ZN31: "[We are] sometimes also [seen as] doormats. [...] As though the kitchen is always a long way down. [...] It really is unbelievably difficult to do right by the residents every day. I think sometimes they don't understand that, whether it is the top brass, the head of social welfare, or the director of the facility. [...] and yes, that is what I would wish for: a bit more understanding for our situation."

CM (NO21): "Respect. I think that some people totally overlook this, the work in the kitchen. Yes, we only have six hours, but we have to make sure that all the meals are provided, and that is actually a lot of pressure."

2. Operative collaboration and communication

CM (ZN31): "So challenge, the biggest is always and will always be the cooperation between service and kitchen. [...] we actually only have service to the kitchen door. That means that after handover it is all over for us. How things are handled in the residents' area is beyond our control. This is the problem time and time again, the fact that it is not our staff, that it is not part of our team [...], then when we do checks it is not always exactly the way we would have thought. That is something we come up against a lot."

NM (ZN32): "The food is always ordered a week in advance. [...] And if particular changes are required, then that is usually done by the shortest route, by calling us [...]. Then there are a few contentious issues, so that the kitchen says: It doesn't work like that, you should have told us earlier and then nursing staff of course say: We can't know that in advance."

Overall it was clear that the common aim was to further improve the mutual cooperation of kitchen and nursing care.

Success factors for residentoriented catering

The qualitative analysis enabled identification of the success factors listed in ◆ Overview 1 for problem-free cooperation between housekeeping, kitchen, service and nursing. These were independent of DGE certification.

Respect and understanding

Important success factors to be mentioned are mutual respect and an understanding for the tasks of interface partners as well as collaboration "on an equal footing". The role model function of management staff is also relevant here.

NM (NNRW22): "Because luckily we don't have that absolutely classic hierarchical structure here. Because here lots of the nursing staff regularly pop into the kitchen so that both sides get to know each other. [...] that the nursing staff also listen to the housekeeping staff and also show an interest in other things that involve the residents."

CM (ZNRW21): "I think the [respect] is pretty high. [...] I have the feeling [...] that we are working on an equal footing, nursing and kitchen staff. [...] But that is also because [...] our facility director also sees it that way. This of course also always [...] depends on the management staff [...], if the management shows by example that you work together and respect is mutual. Once a year we have a joint seminar [...]. That helps create understanding for the other field of work."

Constant communication

Constant communication between the sectors was the essential component of good collaboration: spoken communication (e.g. telephone calls) was used predominantly for rapid solution of problems. The written documentation (e.g. in the form of handbooks, concepts and forms) established a formal common basis. Regular management meetings with all sectors create structures which enable trustful collaboration. The following statements illustrate this. CM (ZNRW51): "Due to application of the quality handbook we have, the whole thing is quite close."

NM (NO12): "We have forms that are always used in the case of change requests."

CM (ZN21): "We have a specific book [...] for important matters."

CM (NS31): "So we try to work with notes a lot too here [...], so that we do stick to certain structures."

CM (NS31): "So as I said, I do think that we work together very, very well and I also think that with the Thursday meetings, where all the sectors from the whole facility are there, so whether it is nursing, daycare, kitchen, we don't let anything fester, we just say 'We didn't think much of that and how can we do it differently?'" CM (ZO11): "[...] there is the manage-

ment meeting once a week. By now it is a group where everyone gets on quite well together. It really does have to work."

Employment of nutrition specialists

All the certified care facilities except one had a nutrition specialist; in the non-certified facilities on the other hand this was only in approx. 1/3 of the cases. This term includes scientists "nutrition and home economics", dietitians and chefs with dietary training. CMs linked the availability

OVERVIEW 1: Success factors for resident-oriented catering

- develop mutual respect and understanding
- establish regular communication
- · employ nutrition specialists
- implement a multidisciplinary nutrition team
- ensure continuous and advanced training
- use common nursing documentation
- regular meetings with residents' representatives

of nutrition specialists to professional respect for nutrition.

CM (ZNRW21): "Because of the fact that we also have our dietitians, the kitchen manager also used to be a dietitian. I have advertised them like that deliberately because we just think that is important, nutrition."

CM (NN21): "On the subject of nutrition we have [...] in the company a cross-sector scientist "home and nutrition" who deals exclusively with the nutrition of older people. When there are problems [...] she comes into the individual facilities and gives further advice. The thematic focus [is] always topical, malnutrition, trouble swallowing, diabetes, etc."

Multidisciplinary nutrition team

A multidisciplinary nutrition team is recommended in both the DNQP Expert Standard and the DGE Quality Standard. The "nutrition team" also had other names in the care facilities, e.g. interface discussion, quality circle for nutrition or nutrition group. CM (ZN 21): "And then we also still do nutrition groups together with nursing staff, [...] [then] we prepare reports [...] where we look to see what we need to concentrate on."

NM (ZNRW52): "This now goes through the quality circle for nutrition, where all the professions work together [...] and it's considerably better because of our [...] assessment and monitoring of the food, because housekeeping and nursing staff work together."

CM (NN21): "[...] the nursing and housekeeping staff in the facility have a nursing plan meeting in the department once a month. [...], where of course nutritional topics are discussed too [...]."

Guarantee continuous and advanced training

Only in the DGE-certified care facilities has been constant access to nutrition-specific training and advanced training, in the non-certified institutions this was not the case. CM (ZO11): "So I go regularly, certainly two to three times a year for training or a specialist conference and that is also used in the kitchen - so for the specialist staff."

CM (NN11): "We have a catalogue for every six months, where every staff member can pick out training courses." CM (NN21): "Because the operator [...] developed a training concept, which is extensive, and which isn't limited to nutrition."

Joint use of nursing documentation

The nursing documentation can be used as a source of information for all work areas for resident-oriented catering because here, among other things, food preference forms, nutrition status, residents' wishes and their individual eating and drinking habits are documented.

CM (ZN21): "[...] some things are also stored on the PC. Because everyone has to document every resident. [...] so you can always read up about the resident's condition at any time. So, there are food preference notes [...], what they liked before they came to us."

NM (ZNRW52): "And for about 6 months now the system has been that all housekeeping staff also have access to electronic nursing documentation and also write to this nursing documentation; weekly reports on eating and drinking behavior of the residents. And since then it has been a bit better." CM (ZNRW51): "Nutrition reports must be kept jointly by housekeeping and nursing. And when they come to the kitchen I assess them and then that all goes back to the nursing staff so that they know what measures have worked, how it is to go on."

Discussion with residents' representatives

Regular meetings with residents and menu plan discussions allow an exchange of views with the advisory board of the facility on the level of satisfaction with the catering and possible improvements. This option is used by both the CMs and the RRs. CM (NM11): "The residents have the option [...] through the residents' board of the facility [...] to make suggestions to the kitchen or me directly or I am invited to a meeting where views can be exchanged. But it is difficult, [...] it always depends to a certain extent on the current structure of the residents' group [...]. Sometimes things can be dealt with by relatives, who then often have quite different views and opinions." RR (ZNRW23): "Well, I know from the meetings of the advisory panel of the facility – [kitchen management] is always represented there – that they consider the quality aspect to be very important." RR (ZNRW33): "There is a residents' meeting, we can make requests and suggestions about the food there. Now and then there are reports to the facility's advisory board. We also have a board for requests. There are personal

suggestions for favorite meals."

Discussion

Limitations

A sample of 30 care facilities was selected for the qualitative staff survey (15 certified and 15 non-certified). The focus was on evaluating the certification process from various viewpoints by CMs, NMs and RRs. In the case of the non-certified institutions the sample is not representative; positive selection must be assumed in the sample: Almost all the non-certified participants were convinced that there was a high level of catering quality within their care facility. It can therefore be assumed that the differences between certified and non-certified care facilities are actually greater than established here. For the certified facilities a larger proportion (15 of 34) of the affected care facilities could be reached. In the region East there was less readiness to participate on the part of certified care facilities.

In principle the following should be noted about the groups of discussion participants:

The catering managers were generally very informative and some actually used the DGE-QSt to prepare themselves for the interview, even though this was not intended. They appeared enthusiastic and interested. The nursing managers mostly seemed less motivated in the personal interviews, sometimes the interviews were delegated to deputies or in one case an agreed interview

appointment was not kept. Often the NMs did not see themselves as responsible for catering at all.

The residents' representatives were sometimes not able to concentrate fully during the interview, depending on their health status. This affected the length of the interview and the usable content of the discussion. In addition, a relatively high level of subjectivity should be assumed since most of the residents were no longer able to talk in the abstract, i.e. to report the opinion of the group. This affected the proportion of comments from this viewpoint. For the residents the subject of food and drink and the quality of the catering was of great significance for their quality of life.

Overall each of the discussion participants contributed their own focuses to the subject of catering which, despite the standardized interview guidelines, had a major impact on the interviews.

A few directors of care facilities took the time for an interview; this was not originally planned. These interviews were taken into consideration in the interests of balance.

In an academic context there are no other qualitative studies which could be discussed as possible comparisons. This substudy recorded the various perspectives of the care facilities for the first time.

Conclusions and derived recommendations

These results clearly show the efforts of the care facilities involved to achieve a high level of catering quality and a high level of resident satisfaction.

DGE certified institutions were able to show that they had nutrition specialists, regular training and advanced training in nutrition and an intense focus on providing catering for residents with ideal sensory characteristics and nutritional physiological aspects. The certification process can improve internal processes since preparation for certification necessitates an analysis of their own work. It was shown that the certified institutions were more active than the non-certified ones even in the fields outside the actual requirements of the standard (e.g. appropriate food consistency, use of

The certification process was judged positively and initial hurdles could be overcome. All certified institutions recommend certification on the basis of the DGE.

The following recommendations can also be derived for catering/food service and application of the QSt:

- There is potential in the interface management between catering and nursing care: this is a joint task with separate responsibilities.
- There is potential in the implementation of a multidisciplinary nutrition team or a nutrition representative.
- There is potential in the internal and external communication of "Fit in Old Age" certification.
- The benefit of the QSt for the care facility should be more clearly communicated, since often no benefit was seen.
- Promoting awareness of the DGE-QSt, particularly amongst nursing managers, could increase the number of certifications.
- The aim of the QSt to enable residents to choose from a health-promoting range of food - taking account of their individual needs -, could be communicated more clearly (certification of range).
- The current DNQP Expert Standard establishes a link to the DGE-QSt in connection with a concept for nutritional care [6, p. 32]. Implementation could lead to added value for residents' quality of life and a linking of the QM activities in the care facilities.
- Implementation of the DGE-QSt could be supported if the content of obligatory quality tests by the MDK were taken into consideration. According to the current MDK quality testing guidelines the DNQP Expert Standard is considered a "preemptive expert report."

These are "used as benchmarks to evaluate the current status of expertise in medical nursing care," even if there is no legal obligation for this [7].

These results could be supplemented by further local studies. Future studies could help establish what effect DGE certification (certification of range) has, for instance, on nutrition status and residents' quality

Prof. Dr. Ulrike Pfannes^{1, 2} Rowena Alber Prof. Ulrike Arens-Azevedo¹ Prof. Dr. Dorothee Volkert³ Carina Burger³ Dr. Eva Kiesswetter³

¹ Hochschule für Angewandte Wissenschaften Hamburg Fakultät Life Sciences Ulmenliet 20, 21033 Hamburg ² ulrike.pfannes@haw-hamburg.de

³ Friedrich-Alexander-Universität Erlanaen-Nürnbera Institut für Biomedizin des Alterns Kobergerstraße 60, 90408 Nürnberg

Conflict of Interest

Prof. Arens-Azevêdo is the President and Prof. Volkert is a member of the scientific committee of the German Nutrition Society. The study was commissioned by the DGE for the 13th Nutrition Report 2016 and financed through support from the German Federal Ministry of Food and Agriculture (BMEL). Beyond this, the authors declare no conflict of interest.

References

- 1. Deutsche Gesellschaft für Ernährung e.V. (DGE) (Hg). Evaluation des "DGE-Qualitätstandard für die Verpflegung in stationären Senioreninrichtungen". In: Deutsche Gesellschaft für Ernährung (DGE) (Hg). 13. DGE-Ernährungsbericht. Bonn 2016, S.
- 2. Godemann J (2017) Qualitative Forschung verstehen und anwenden. Ernährungs Umschau. 63(2): M94-M103
- 3. Flick U, von Kardoff E, Steinke I (Hg). Qualitative Forschung - ein Handbuch. Rowohlt, Reinbek (2005)
- 4. Mayring P. Qualitative Inhaltsanalyse -Grundlagen und Techniken. 11. aktual., überarb. Aufl., Beltz, Weinheim/Basel (2010)
- 5. Kiesswetter E, Burger, C, Volkert D et al. (2016) Evaluation des "DGE Qualitätsstandard für die Verpflegung in stationären Senioreneinrichtungen". Ernährungs Umschau 63(12): M708-M715
- 6. DNQP Deutsches Netzwerk für Qualitätssicherung in der Pflege (Hg). Expertenstandard Ernährungsmanagement zur Sicherung und Förderung der oralen Ernährung in der Pflege. 1. Aktualisierung. Osnabrück (2017)
- 7. GKV Spitzenverband (Hg). Richtlinien des GKV-Spitzenverbandes über die Prüfung der in Pflegeeinrichtungen erbrachten Leistungen und deren Qualität nach § 114 SGB XI (Qualitätsprüfungs-Richtlinien – QPR) nach § 114 SGB XI vom 27. September 2017. Teil 1 Ambulante Pflege. 2017. (QPR, Teil 2, stationäre Pflege, Anlage 2, S. 17).

DOI: 10.4455/eu.2018.024