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Home Delivered Meals

Exploring Perceptions and Acceptability among Swedish Older Adults

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Title

Home Delivered Meals - Exploring Perceptions and Acceptability among Swedish Older Adults

Hemlevererade måltider -en utforskande studie av äldre svenskars uppfattningar och acceptans

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Abstract

Background: Approximately 48 000 meals are distributed to home-dwelling older adults every day in Sweden. The ability to influence the meals is of great importance for the quality of life and therefore it is important to include the views, needs and wishes of older adults when structuring the food distribution service.

Objective: The purpose is to explore the perceptions and acceptability of home delivered meals among home-dwelling older adults and professional caregivers.

Methods: The present study was the first qualitative phase of a mixed method study with an exploratory sequential design. Qualitative data was collected from five older adults >65 in five municipalities and two caregivers through interviews.

Results: Most of the participants were able to choose from two alternative dishes every day and they were pleased with the selection of dishes most of the time. Overall the menus were considered variated and seasonal and holiday themes were highly valued. The Swedish cuisine was their favorite, however many ethnic dishes were appreciated as well. The meals were considered delicious, however the texture of the vegetables, potatoes and meat was not optimal.

Conclusions: Sometimes two alternative dishes were not considered enough. More and a broader selection of dishes might increase older adults feeling of independence but also help meeting expectations of older adults with different cultural backgrounds. Familiar dishes, a conscious choice of condiments, enhanced flavors and improved textures and appearance might compensate for deteriorating senses. Descriptive information about the meals on the menus might also help meeting older adults' expectations.

Keywords

Home delivered meals; food distribution; home-dwelling; older adults; acceptability; perceptions

Sammanfattning

Bakgrund: Det levereras cirka 48 000 måltider till äldre i ordinärt boende varje dag i Sverige. Möjligheten att påverka måltiderna är en viktig förutsättning för äldres livskvalitet, därför är det viktigt att inkludera äldres uppfattningar, önskemål och behov vid strukturering av måltidsdistributionen.

Syfte: Syftet var att utforska äldres uppfattningar och acceptans av hemlevererade måltider bland äldre och vårdgivare.

Metod: Studien var den första kvalitativa fasen av en mixed method studie med en exploratory sequential design. Kvalitativ data samlades in genom intervjuer med fem äldre i fem kommuner samt två undersköterskor.

Resultat: De flesta av deltagarna kunde välja mellan två måltidsalternativ varje dag och de var nöjda med måltidsutbudet för det mesta. Överlag ansågs menyerna vara varierande och säsongsoch högtids anpassade rätter var uppskattade. Även om det svenska köket var en favorit, uppskattades etniska rätter också. Måltiderna ansågs goda, men texturen på grönsaker, potatis och kött var inte optimal.

Slutsatser: Ibland uppfattades inte två måltidsalternativ som tillräckligt. Fler rätter och ett bredare utbud av rätter skulle kunna öka äldres känsla av självständighet men också möta förväntningar hos äldre från olika kulturer. Välbekanta rätter, medvetna val av tillbehör, förstärkta smaker och optimerade texturer och utseende kan möjligtvis kompensera för nedsatta sinnen. Detaljerad information om maträtterna på menyerna skulle kanske också kunna hjälp till att möta äldres förväntningar.

Nyckelord

Hemlevererade måltider; måltidsdistribution; hemmaboende; äldre; acceptans; uppfattningar

Contents

1. Introduction	6
2. Background	6
2.1 The Swedish food provision system	6
2.2 Aging and sensory perception	8
2.3 The Meal Model	9
2.4 Food choices, habits and preferences	10
3. Objective	12
3.1 Research questions	12
4. Material and methods	12
4.1 Research design	12
4.2 Literature search strategies	14
4.3 Participants and setting	14
4.4 Data collection	
4.5 Content analysis	16
4.6 Ethical considerations	17
5. Result	17
5.1 The meal service	17
5.2 Meal perceptions and acceptability	20
6. Discussion	23
6.1 Results discussion.	23
6.2 Methodological considerations	28
6.3 Relevance for the subject Food and Meal Science	32
6.4 Future research suggestions	32
7. Conclusion	32
References	34
Appendices	39
Appendix 1. Letter to the home care service	39
Appendix 2. Missive letter to the participants	40
Appendix 3. Interview guide	42
Appendix 4. Interview guide Home Care Service nurses	44

Preface

As a professional chef and gastronome in my late thirties, it is difficult to imagine myself as old and unable to cook for myself. Food has always been my passion and I cannot imagine a future where I am not involved in my own food decisions. My previous work experience from the Home Care Service has motivated me to conduct the present study and explore the acceptability and perceptions of the home delivered meals. Since the meals are important for quality of life among older adults I felt it was a calling. I hope to be a part of the development of the future public food sector.

This thesis would not have been possible without the amazing support from my family and friends. I also want to thank my supervisor Elisabet Rothenberg, course coordinator Viktoria Olsson and fellow students for all your valuable feedback and help.

Sarah Forsberg January 2018

1. Introduction

Over 160 000 older adults were granted Home Care Service assistance between January and June 2017 in Sweden (The National Board of Health and welfare, 2017a), out of these approximately 48 000 were granted food distribution (The National Board of Health and Welfare, 2017b). According to the National Food Agency [NFA] (2011b) the ability to influence the meals is of great importance for the quality of life among older adults. Therefore it is important to include the views, needs and wishes of older adults when planning the meals and structuring the food distribution service (NFA, 2011b). It is also important to evaluate the perceptions and acceptability of the meals regularly, this can be done by conducting interviews, surveys or observations (NFA, 2011a).

According to Pajalic and Pajalic (2015) systematic quality insurance and repetitive feedback between the food distributors and the older adults is important to ensure high quality meals but also to improve the quality of life among older adults. The National Board of Health and Welfare conducts evaluations concerning the Home Care Service annually, this also includes the meals provided by the food distributors. However, the surveys only touch the meals briefly with questions like "does the food taste well?" and "are the mealtimes enjoyable?" this does not offer a lot of information about how Swedish older adults perceive the meals. According to the NFA (2011a) it is important to include questions about sensory attributes such as taste, odor and appearance when evaluating the meal quality. The consumers should also have the possibility to choose among a selection of dishes (NFA, 2017b; NFA 2011a). More studies that focus on older adults' perceptions and acceptability of meals provided by the food distributors in terms of sensory attributes, preferences, variation and expectations are needed.

2. Background

2.1 The Swedish food provision system

The Swedish welfare system is comprehensive and aims for equal opportunities for good and equal health and the food provision is an important part in delivering equal rights to the public (NFA, 2015). In recent years there has been a shift in the welfare state ideology according to Mattsson Sydner et al. (2007). Sweden has gone from normative values when planning and preparing meals and neglecting social and cultural aspects, to a more individualized approach (Mattsson Sydner et al., 2007). Maintaining older adults'

independency and self-government in important life choices is a fundamental principal for the Home Care Service in Sweden (The Social Service Act [SoL], SFS 2001:453) and means that older adults should be cared for and supported in their own homes as long as it is manageable. This includes supporting food and meal patterns and adjusting the meals after needs, habits and wishes among older adults as much as possible (NFA, 2011b). However, many older adults experience loneliness and dependency from being isolated and confined in their homes but also for not being able to influence the meals according to Pajalic, Persson, Westergren, Berggren and Skovdahl (2012).

The statutory obligation to organize a social and care service assistance system for older adults belongs to the Swedish municipalities (Pajalic et al., 2012) and is regulated by two acts of parliament: The Social Service Act (SoL, SFS 2001:453) and the Health and Medical Services Act (HSL, SFS 2017:30). This includes organizing a system that distributes meals to older adults that are required assistance to acquire food and meals (Mattsson Sydner & Fjellström, 2007; Pajalic et al., 2012). However neither of the laws give any detailed information on how the food deliveries should be organized, which allows the municipalities to organize the food delivery services the way they see fit in accordance with their own conditions (Mattsson Sydner & Fjellström 2007; Pajalic et al., 2012).

The food provision in Sweden can be managed either by the public sector or by a private entrepreneur, in both cases the main responsibility for the service still belongs to the municipalities (Mattsson Sydner & Fjellström, 2007). Ready-made meal boxes can be distributed warm, chilled or frozen and delivered either by the entrepreneur or by the Home Care Service. The menu variation, amount of alternative dishes for the older adults to choose from, but also portion sizes and condiments differs between the distributors (Mattsson Sydner & Fjellström, 2007). The meals might also have to be complemented with condiments, fruit, fresh vegetables, bread and desserts according to NFA (2011b).

The Home Care Service is a social organization that consists of various professionals that are responsible for different areas of the care (Fjellström, Mattsson Sydner, Sidenwall Raats and Lumbers, 2015). Every municipality has a social welfare committee that establish general guidelines for the services within the elderly care (Mattsson Sydner & Fjellström, 2007). To qualify for Home Care Service assistance, each case is evaluated in terms of health status, living conditions and everyday life by a care case manager

(Mattsson Sydner & Fjellström, 2007). The care case manager has the authority to judge and decide if and how much help is required in every case (Mattsson Sydner & Fjellström, 2007). This means that only older adults unable to provide for food and meals themselves will be qualified for food distribution assistance. The Home Care Service ought to have a food- and meal representative that can represent the older adults by attending meetings with the food distributor and the care case manager (NFA, 2011a).

2.2 Aging and sensory perception

The demand for energy changes with aging, partly because of natural physical changes that are common according to the process of aging but also related to increased prevalence of diseases and pharmaceutical use among older adults (NFA, 2011b; The National Board of Health and Welfare 2011). The primarily cause of appetite loss among older adults is disease but other factors that impact appetite are decreased physical activity, poor dental status, reduced saliva production, difficulties to chew and swallow food but also psychosocial factors like loneliness and depression influence appetite and eating among older adults (NFA, 2011b; The National Board of Health and Welfare, 2011).

The aging process also affect the sensory perceptions which leads to deterioration of vision, hearing, taste and smell (Field & Duizer, 2016). The sense of smell is important in determining tastes of foods and a loss of smell consequently affect the sense of taste (Wylie, Fellow & Nebauer, 2010; Lawless & Haymann, 2010). Increased taste thresholds and reduced ability to distinguish sweet, salty, sour and bitter is a normal change with aging (Wylie, Fellow & Nebauer, 2010). However, pharmaceuticals are probably the most significant reason for the loss of taste and smell among older adults but medication can also cause nausea and appetite loss (Wylie, Fellow & Nebauer, 2010; National Board of Health and Welfare, 2011). Furthermore, neurological diseases like Parkinson and Alzheimer's can also impact the sense of taste and smell (Wylie, Fellow & Nebauer; National Board of Health and Welfare, 2011).

Vision is classified as the most dominating sense and it has great impact on how odors and flavors are perceived but also how a dish is distinguished on the plate (Krishna, 2011). The primary indicators of food quality is based on the appearance and the color of foods, which in turn influences the perception of attributes like aroma, flavor and taste according to Lawless and Haymann (2010). Findings have shown that the more deeply

colored a food is, the higher intensity ratings are obtained (Lawless & Haymann, 2010). According to Field and Duizer (2016) studies have shown that the visual presentation impacts the acceptability of food among older adults. What the food looks like on the plate indicates what the food will taste like (Field & Duizer, 2016). Serving familiar dishes associated with specific ingredients, condiments, cooking techniques and holiday and seasonal themes will also provide information of what the meals are expected to taste like (Field & Duizer, 2016; Mattsson Sydner, 2002; NFA, 2011b).

2.3 The Meal Model

According to the NFA (2011) the meals should be high in quality. To help the public food providers increase the meal quality the NFA (2015) developed the Meal Model. The Meal Model consist of 6 puzzle pieces that together creates *safe*, *nutritious* and *tasty* food that is served in a *pleasant* environment but the meals should also be environmentally and socially *sustainable* and *integrated* into the daily activities (NFA, 2015). *Nutritious* and *Safe* are both objective measurable indices. The meals should be planned and prepared in accordance with the Nordic Nutrition Recommendations (NNR, 2012) to satisfy the basic nutritional needs and requirements for maintaining good health (NFA, 2017b). The meals should also be handled, composed and cooked to meet safety standards regulated by European and national food legislation to ensure hygienic quality (NFA, 2017b). Furthermore, the meal experience is also influenced by the setting, atmosphere and commensality, which adds to an *integrated* and *pleasant* meal experience according to the



Figure 1. The Meal Model, developed by the National Food Agency (2015)

NFA (2017b). Since many home-dwelling older adults consume their meals alone in their own homes and not in the community restaurants, the meal setting and commensality is challenging for the food distributors to influence.

Tasty on the other hand is perceptual and relative to person, place and time. Objective measures of *tasty* are inadequate according to Cardello (1995), therefore consumer acceptability is the most adequate index of

food quality to measure *tasty* (Cardello, 1995). Food quality is a complex concept which cannot be defined by just one dimension according to Meiselman (2001). According to the NFA (2017b) the term *tasty* involves;

- a selection of dishes for the consumers to choose from
- the meals are cooked with high quality ingredients,
- the meals are presented in an appetizing way
- the meals are appreciated by the consumers (NFA, 2017b; NFA, 2011a).

Food quality can either be measured as objective indices like nutritional, microbiological, or physicochemical characteristics by experts in the food industry, or as subjective and perceptive characteristics measured by consumer acceptability. Consumer acceptability is to be found in consumer responses and not in the declarations of experts (Cardello, 1995).

2.4 Food choices, habits and preferences

Understanding cognitive food choice processes can be a way to promote optimal meals for older adults according to Winter Falk, Bisogni and Sobal (1996). They found in their research that preferences among American older adults were strongly impacted by life course events and experiences and that appropriate food behavior and ideals were formed already during childhood (Winter Falk et al., 1996). Edfors and Westergren (2012) also found that childhood and earlier adulthood experiences like eating patterns, norms, routines, and traditions had a great impact on current feelings and views about food and meals among older adults.

Pajalic and Pajalic (2015) aimed to describe how home-dwelling older adults perceive the food they receive through their municipal food distributor by conducting a survey. The survey showed that the participants were grateful for the opportunity to receive traditional dishes on a daily basis and they were satisfied with the portion sizes and time for delivery. However they were unsatisfied with the alternative dishes and also the special dishes offered to older adults with food allergies or special food diets (Pajalic & Pajalic, 2015). Unfortunately, there is no further information that could offer insights to what was considered unsatisfying with the alternative and special dishes.

The participants in the study of Edfors and Westergren (2012) preferred home cooked dishes made from locally and seasonal produced ingredients, consisting of whole meal breads, potatoes, pork and fresh fish that they grew up with. They also desired more old-fashioned meals cooked the traditional way and requested more foods like fresh fish, veal, lamb, vegetables, fat, and cream cooked with well-known spices such as salt, pepper, dill, and bay leaves. Modern dishes like pizza were on the other hand not appreciated

according to Edfors and Westergren (2012). Moreover, the perceptions of the meal quality differed among the participants (Edfors & Westergren, 2012). A majority thought the dishes were tasty and varied, and also appreciated the distinction in content between weekdays and weekends. Some participants would not eat the meal if it looked unappetizing or contained ingredients and spices they did not like or could not chew and digest (Edfors & Westergren, 2012). However, there were no information provided regarding what was considered as an unappetizing meal appearance and why.

Pajalic, Persson, Skovdahl and Westergren (2012) focused on the food distribution and aimed to describe the views of the decision-makers on the food distribution service and also to report their suggestions for improvements of the food distribution process and practice. The study discusses many relevant aspects of health improvement but does not acknowledge the meaning of the food itself. According to Patton (2008) improvement oriented evaluations like quality enhancement, participant feedback, and reflective practice aims to improve a program by gathering data about strengths and weaknesses. By encouraging older adults granted food distribution to participate in evaluations both as active respondents and as consultants, they will get an opportunity to remain in control of their own lives and decisions (Crishna, 2006). According to Edfors and Westergren (2012) knowledge of individual preferences and habits, from both their earlier and current lives was important to meet the need for optimal nutritional status among elderly. Therefore participant's perceptions and acceptability ought to be a priority when it comes to improving the food distribution service and practice.

These studies provide information on the overall acceptability and perceptions of the meals and meal distribution. However, there is a lack of studies focusing on the food and meals itself. To be able to improve the meals to better match the needs and wishes of older adults both quantitative and qualitative methods are needed. To acquire more information about older adults' perceptions and acceptability of home delivered meals, the evaluative questions needs to be broken down into more and more specific questions regarding menu, sensory characteristics, preferences and expectations. This study will therefore focus on the food and meals when exploring older adults' perceptions and acceptability of home delivered meals.

3. Objective

The purpose of the study is to explore the perceptions and acceptability of home delivered meals among home-dwelling older adults and professional caregivers.

3.1 Research questions

- How do home-dwelling older adults perceive the meal service?
- What is the overall acceptability of home delivered meals among home-dwelling older adults?

4. Material and methods

4.1 Research design

A mixed method design was considered appropriate for the aim of this study since a qualitative or quantitative research method alone might be insufficient to describe homedwelling older adults' perceptions and acceptability of the meals delivered by the food distributors (Creswell 2015). Quantitative research is used to gather numeric data on close-ended scales and analyzing them statistically to find answers to specific research questions or hypothesis. Qualitative research on the other hand investigates personal narratives that seek to understand in depth meanings of individuals, however qualitative research is not generalizable (Creswell 2015).

Qualitative research involves philosophical assumptions and theoretical framework. The qualitative researcher brings perspectives and experiences into the research act that provide direction for the study (Creswell & Poth, 2017). Therefore, there is a close tie between the philosophical ideas that one brings into the research study and how one proceeds to use a framework to cover the field of inquiry (Creswell & Poth, 2017). Content analysis is a flexible method for analyzing texts and can be conducted by using both an inductive or deductive approach (Hsieh & Shannon, 2005). A deductive approach is recommended when the analysis is structured by using predetermined categories based on previous knowledge and theories (Hsieh & Shannon, 2005). An inductive approach on the other hand is appropriate when existing theory or research literature on a phenomenon is limited and the analysis allows categories and names for categories to flow from the data and new insights to emerge (Hsieh & Shannon, 2005).

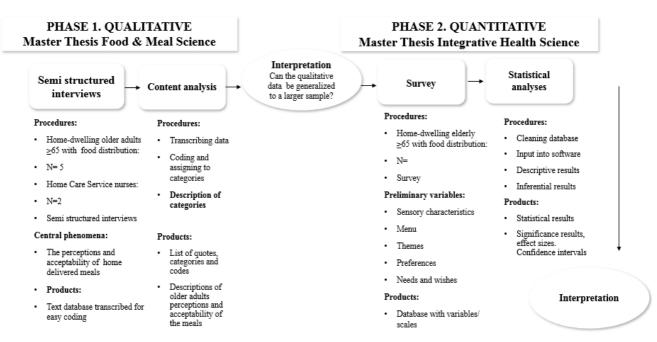


Figure 2. An exploratory sequential mixed methods design used to conduct the study, where the qualitative result will interpreted and generalized to a larger sample, the result will serve as a base for the survey in the quantitative phase.

Mixed method research involves collecting both quantitative and qualitative data that are incorporated in the design by merging, connecting or embedding the data in the analysis according to Creswell (2014). By combining these research methods into a mixed method study, the research methods complement each other's strengths and weaknesses (Creswell, 2015). An exploratory sequential design was chosen for the present study. The first phase of an exploratory sequential study involves collecting and analyzing qualitative data and then the findings are used in a second follow-up phase by collecting and analyzing quantitative data (Creswell, 2014).

The present study was the first phase of the exploratory mixed method study and was conducted as a part of a one year Master's degree in Food- and Meal Science (see figure 2). The first phase involved planning and collecting data through interviews. The data was transcribed, analyzed and interpreted to provide information for a survey in the second quantitative phase. The second quantitative phase will be conducted as a part of a two year Master's degree project in Integrative Health Science. The study will involve planning, creating and conducting a quantitative survey based on the qualitative findings in the first phase on a larger population sample. The data will then be used to evaluate the acceptability of the home delivered meals by conducting statistical analyses (Creswell, 2014).

4.2 Literature search strategies

Because the objective of the study was to explore older adults' perceptions and acceptability of home delivered meals, the literature review was primarily based on Swedish articles that aim to describe home-dwelling older adults' views on food and meals in Sweden.

The literature review consists primarily of peer reviewed articles regarding older adults' views on food and meals and the Swedish food provision. The articles were found in the database Summon at the Kristianstad University webpage, and key words used were *food distribution*, *home-dwelling older adults*, *food choice models and food- and meal quality*. Moreover a few publications were obtained through reference lists of other studies in the field.

Governmental reports about meals in the elderly care were searched and downloaded from the National Food Agency and The National Board of Health and Welfares webpages. Furthermore relevant legislation regarding The Social Services Act (SoL 2001:453) and The Health and Medical Services Act (HSL 2017:30) were found through the webpage of the Swedish parliament.

4.3 Participants and setting

Five municipalities within convenient distance in southern Sweden were contacted and asked to participate in the study. One municipality did not answer back, one municipality did not want to participate and three municipalities were willing to participate. The participating municipalities recruited one participant each with help from the Home Care Service. Snowball sampling was used to recruit two participants from the two municipalities that did not want to participate, which resulted in five participating older adults from five different municipalities (see table 1). The inclusion criteria were that the participants were ≥ 65 , lived in their own homes and received meals from either a private or public food distributor. The ambition was also to make the sample as diverse as possible by recruiting participants from both genders, married, divorced and widowed, of both Swedish and foreign origin and with age variation. The interviews were conducted by the researcher at the homes of the participants. Background data regarding age, gender, civil state, length and type of food distribution were collected (see table 1).

Two additional interviews were conducted with two assistant nurses from the Home Care Service. They were selected and recruited by convenience sampling from two of the five municipalities that were included in the study (see table 2). They were included because they communicate with the older adults regarding the meals on a daily basis and therefore might have valuable information about older adults' perceptions and acceptability of the meals. The interviews with the nurses were conducted at the Home Care Service offices after the interviews with the older adults were completed and the analytical process had begun.

Table 1. Overview of the participants background data, including; gender, and age, civil state, years with food distribution and public or private municipal food distributor.

Participants:	Age:	Gender:	Civil status:	Years with food distribution:	Public/private food distribution:
Participant 1	89	Female	Divorced	4,5 years	Public
Participant 2	82	Female	Widow	5 years	Public
Participant 3	82	Male	Widower	1 year	Private
Participant 4	86	Female	Married	<1 year	Public
Participant 5	92	Male	Widower	6 years	Public

Table 2. Background data of the participating assistant nurses, including gender, years of professional experience and private or public food distributor in the working municipality.

Participants:	Gender:	Professional experience/years	Public/private food distributor
Assistant nurse 1	Female	44	Public
Assistant nurse 2	Female	40	Private

4.4 Data collection

A semi structured interview guide (see appendix 3) was created and the questions were of open-ended character and focused on the perceptions and acceptability of the meals in terms of sensory attributes, variation of dishes, themes, portion size and temperature but also the participants views on meal quality, preferences, expectations, wishes and needs.

The participants were informed by letter, explaining the aim of the study and the study procedure. Written consent was obtained from three of the participating older adults by the Home Care Service assistant nurses during the recruitment process (see appendix 1 and 2 for information and missive). However, oral consent was obtained from two participants recruited through snowball sampling. All participants were informed a second time about the study and their participation before the interviews started. The interviews took place at the homes of the participants and lasted about 1, 5 hours. The interviews were recorded verbatim, transcribed and translated into English.

After the interviews with the older adults were completed, interviews with two assistant nurses from the Home Care Service were conducted. The interview guide was structured accordingly with the interview guide for the older adults (see appendix 4) but focus was on the assistant nurses' observations and experiences of their care recipients perceptions and acceptability of the meals and meal service.

4.5 Content analysis

Content analysis was used to analyse the qualitative data since it is a method generally used in studies where the aim is to describe phenomenon (Hsieh & Shannon, 2005). The qualitative content analysis process by Elo and Kyngäs (2008) based on three main phases; preparation, organizing and reporting, was the outset for the analysis. The data analysis started after the first interview and continued throughout the data collection process. Field notes were taken at the interview site to capture ideas and insights.

The preparation phase

The transcripts were printed out, read through several times to obtain a sense of whole. Then an open coding was performed by highlighting important meaning units of the manifest content that provided information relevant for the purpose of the study. The highlighted meaning units were collected on to a working sheet (Elo & Kyngäs, 2008).

The organizing phase

The meaning units were then condensed but preserving the core of the content. The condensed meaning units were given codes that described the core meaning of the content and codes with common themes were grouped and assigned to categories. Moreover, the categories were sorted and divided into subcategories based on their content (Elo & Kyngäs, 2008).

Table 3. An example of how the meaning units were coded and assigned to categories (Graneheim & Lundman, 2004).

Meaning unit:	Condensed meaning unit:	Code:	Category:	Subcategory:
"People might think it is odd that I can say the food is delicious with my weakened sense of smell and taste but knowing what the dishes are supposed to taste like helps the meal experience for me"	"familiar dishes improves the sensory experience"	Familiarity	Meal perceptions and acceptability	Sensory perception

"They would deliver meals				
for a week at a time, when	" meals for a week,	Poor meal	The meal service	Meal delivery
I reached day five the	not fresh and unsafe	an aliter		
textures had changed a lot	to eat"	quality		
and meal six and seven did				
not feel fresh at all. I did				
not dare to eat them"				

The reporting phase

Descriptions of the essence of each category and subcategory were structured by using corroborating data and quotes from the interviews with both the older adults and the assistant nurses (Elo & Kyngäs, 2008).

4.6 Ethical considerations

The study was performed in accordance with the Helsinki declaration of ethical principles (World Health Organization [WHO], 2001). The participants were anonymous and no personal information that allowed any data to be linked to individual participants were recorded and presented in the report. Information about the recording and the use of the collected data was given and the participants' permission and written consent was obtained. The interviewees were also informed that their participation was voluntary and they had the right to withdraw at any time without any personal consequences (Gustafsson, Hermerén & Pettersson, 2011). Because the interviews were conducted at the homes of the participants, the participants were given the possibility to contact the researcher by phone if they felt a need to do so.

5. Result

5.1 The meal service

This category contains content that was found relating to the meal service such as menu, the meal box and accompaniments and meal delivery.

Menu

Most of the time the participants were pleased with being able to choose between two alternative dishes. However, there had been times when none of the alternative dishes were considered appealing to the participants and they had felt powerless and dependant.

"I think there should be a third alternative. Sometimes I don't want to eat any of the two alternatives and I have to settle with the least unappealing dish" [Participant 2]

When it came to distinctions between weekday- and weekend meals the participants did not perceive any major differences between the meals served Monday to Saturday, then again it was not considered important either since Saturdays had been a working day most of their lives. Sunday dinners were on the other hand important and the meals were expected to be more luxurious.

"To me Saturday is just another weekday, I guess it is because my parents worked on Saturdays. Back then only Sundays were considered weekend and rest day, it is still in me I guess" [Participant 1]

Moreover, the menu was expected to be balanced and containing a good variation of different commodities. All participants stated that fish should be served on Tuesdays, soups on Thursdays and roasts on Sundays.

Some of the participants said that they always received classic holiday and seasonal dishes, whereas others said that they did not notice any major differences between dishes served weekdays, weekends or holidays. However, both the assistant nurses from the Home Care Service meant that traditional dishes were always offered during Christmas and Easter. Theme days like mother's day, vegetarian day, and cinnamon bun day were very much appreciated since it often was an unexpected treat. More holiday and seasonal inspired meals were requested because it gave meaning and structure in the participants' everyday life. However, they were conservative and did not appreciate dishes that did not follow their perceived traditional norms when it came to condiments and flavors.

"I don't know, maybe some holiday and seasonal inspired dishes... *looks through the menu* we can order turkey fillets next week for St Martin's Day but it is served with estragon sauce and that is not traditional at all" [Participant 2]

The participants were asked if they felt that they could influence the menu. None of them felt that their views mattered but complaining was not an option. They described how they were taught by their parents to not complain and always eat what was being served. Only one participant said that she had been included in a meal evaluation by her food distributor but that she never heard anything about the results. All participants said that they would participate in an evaluation if they were given the opportunity. They also wanted someone to talk to regarding the meals.

The meal box and accompaniments

The participants that received meals from the public food distributors had to provide for condiments themselves. Traditional condiments like lingonberries, strawberry jam, mustard and pickled cucumber and beetroots were recommended and communicated on

the menus. This was not considered a problem for the older adults since it offered them an opportunity to choose what they wanted themselves and also the possibility to add as much as they desired. However, according to one of the assistant nurses, the Home Care Service personnel that are responsible for cleaning and purchases often lack knowledge of what condiments are required with Swedish dishes. Due to this many older adults are eating their meals without the "right" condiments.

The portion sizes were considered enormous and most of the participants were unable to finish the meals. They either divided their meal into two meals or shared the meal with a spouse but most leftovers ended up in the trash. They did not like to throw away food but even if they saved the leftovers they were unable to eat it. Overall they thought the meals consisted of too much meat and potatoes. The soups were also not considered filling enough, even if they loved soup many would not order soup. The addition of condiments and side dishes such as bread rolls and toppings were important to achieve fullness and a sense of satisfaction. However the condiments accompanying the soups were not considered enough.

The desserts were seen as a luxury and something that they looked forward to. Some participants ate the desserts together with their meals, while others would save the dessert for afternoon coffee or as a treat later in the evening. One of the participants only received dessert with soup on Thursdays, sometimes he ordered soup just to get the dessert. The participant said that he would appreciate the opportunity to order dessert with all his meals. One of the assistant nurses also described how some of her care recipients ordered pea soup even if they did not like it, only to be able to get the pancakes.

The arrangements of the dishes in the meal boxes were also discussed by several of the participants. Sometimes the meal boxes looked messy, especially gravy had a tendency to be poured all over the components. This not only ruined the appearance for some of the participants but also diminished their ability to choose if they wanted gravy or not.

"I would prefer the sauce separated from the meat and vegetables though, the gravy makes it look messy" [Participant 3]

The assistant nurses described how they have had to sort out pieces of meat and vegetables from the gravy because their care recipients either did not like certain vegetables or did not want gravy. They meant that keeping the gravy separate did not only

improve the appearance of the meal box, it also gave the older adults the possibility to choose how much gravy they wanted themselves.

Meal delivery

Four participants received warm meals every day and were very pleased with the temperature at delivery. One of the participants cancelled her meals a few months before the interview. She had previously been very pleased with the meals but felt that the meal quality had decreased significantly since the food distributor shifted from delivering warm meals every day to a chilled meal system delivering seven meals once a week. She did not perceived the last couple of meals as fresh or safe to consume.

"They would deliver meals for a week at a time, when I reached day five the textures had changed a lot and meal six and seven did not feel fresh at all. I did not dare to eat them"

[Participant 4]

Another participant was negative towards the food distributor overall, she felt like her views were unimportant and wished that her needs would be recognized in some way. She had heard a rumor that the food distributor was shifting from warm to cold meal delivery system and she worried about how she would be able to manage to heat the meals herself. When it came to the service, one of the participants had never had a personal encounter with the private deliverer, the meal boxes were just left outside his door. This was confirmed by one of the assistant nurses who had personally found lukewarm meal boxes outside her care recipients homes herself. The other participants were grateful for having the assistant nurses deliver their meals and valued their support and help with heating the meals if necessary.

5.2 Meal perceptions and acceptability

This category contains content that was found relating to the overall meal acceptability including sensory perceptions and food and meal preferences.

Sensory perceptions

All sensory features were considered important for the total meal experience. The aroma of the warm meals triggered feelings of hunger and appetite but also the saliva production at arrival. When it came to the overall taste, the meals were considered delicious but steamed vegetables often lacked salt and soups had a tendency of being too salty. Due to pharmaceuticals some participants suffered from smell and taste deficits which impacted how they chose their meals. One participant experienced off flavors and aftertastes that made eating unbearable at times and therefore avoided certain foods like smoked

sausages, ham and bacon but also acidic desserts and condiments. Others relied on their vision to sense the flavors of the meals. The appearance and arrangement of the dishes were considered vital since the appearance helped intensify the sensory perception.

"My sense of smell and taste are not so good anymore so when they arrive with the food and tell me it smells amazing I unfortunately cannot smell it. That is when my vision is so important, when it is composed beautifully in the box and with colors of the vegetables like carrots, beans and peas it is very appetizing to me" [Participants 1]

"If it looks delicious it probably taste delicious too" [Participant 5]

When it came to their expectations, familiar dishes were served most of the time and they also knew what ingredients, flavors and seasonings to expect just by looking at the menu. The imagery and visual expectations were especially essential to participants with a decreased sense of smell and taste. Familiar and traditional dishes helped them to sense flavors by reminiscing what the dishes tasted like.

"People might think it is odd that I can say the food is delicious with my weakened sense of smell and taste but knowing what the dishes are supposed to taste like helps the meal experience for me" [Participant 1]

Information about ingredients was something that was pointed out as crucial. Because they ate their meals in their homes and not in the community restaurants they did not have an opportunity to ask questions about the dishes if they were uncertain about something. They requested detailed information on the menu so they would know what to expect. It was not just information about unfamiliar dishes that was addressed, also small obscurities like what kind of potatoes is accompanying the dish could result in not meeting older adults' expectations.

"Today's special.... The weekly pasta dish" [Participant 3]

"There has to be information on the menu that says what the dishes contains. Not just a weird name of a dish, like for instance next week nasi goreng. *points at the menu* I don't know what that is, it should say what commodities and spices it contains and how it is prepared" [Participant 3]

"Sometimes I get really disappointed, like for instance getting mashed potatoes when I thought the dish was going to be served with boiled potatoes. When it says potatoes on the menu I expect boiled potatoes, if they are going to serve mashed potatoes I think it should be specified. I get disappointed because mash does not go well with a stew. I don't like that" [Participant 2]

Texture was brought up several times during the interviews, especially when it came to potatoes and vegetables. Broccoli and cauliflower were often overcooked and mushy, blanched carrots were perceived as hard and chewy. The potatoes were either not cooked enough or overcooked. Some meats were also considered chewy, particularly thick slices of roasts. The assistant nurses confirmed that the meats were sometimes a problem and that softer meats were needed. Since most of their care recipients are 80-100 years old and a majority of them have poor dental status they are not able to chew the meats even if it is cut into smaller pieces.

Preferences

A proper meal was referred to as a home cooked meal consisting of potatoes, meat and gravy. Their mothers cooking were considered the norm, even though they pointed out that they were not picky eaters. Familiar seasonings were valued the most, as well as dishes cooked in a perceived traditional Swedish way with familiar spices like bay leaves, allspice, horseradish, dill and parsley. However they were all open-minded towards modern and ethnic dishes as well. One woman would visit the local Thai restaurant with her sister now and then, and one of the men had travelled the world and tried many different cuisines over the years, and another woman longed for spaghetti Bolognese and other Italian pasta dishes.

"Dishes like spaghetti Bolognese consist of various ingredients and flavors, I am openminded about dishes like that. We unfortunately don't get that very often now. Back when I took care of my grandchildren I ate it every other week *laughs*" [Participant 1]

To get an understanding of what kind of dishes the participants preferred, they got the opportunity to name a few dishes that they enjoyed. They found it difficult to choose among favorite dishes and most of them expressed gratitude for the meals they received and explained that they knew they could not have favorite dishes every day and that it was acceptable.

"I will eat anything. I don't think it is okay to say "I don't eat this and that""

[Participant 5]

Weekday dishes that the participants preferred and requested more of were traditional dishes like horseradish stew, dill stew, meatloaf, cabbage pudding, and hash with eggs but also creamed spinach with salmon, creamy spinach soup with boiled egg halves. Other fish dishes that they appreciated were fried plaice with Danish remoulade, breaded and fried herring with mashed potatoes and lingonberries and cod with mustard sauce.

Weekend dishes that they preferred and requested more of were salmon, pork chops, plum roasted loin, roasted rooster, duck or turkey. Gravy was considered one of the most important components of the meal, all participants commented how much they enjoyed the gravy and how too little gravy made the meals tasteless and dry. Other factors that were considered important when it came to meal quality was that the meals were varied, balanced, and warm but also cooked adequate, not burnt, chewy or overcooked.

"That the food is warm and that the food is not burnt, that the potatoes and vegetables are boiled enough, not under or overcooked. Just enough" [Participant 2]

"Meal quality is that the meal is delicious and that there is a variation and balance.

There must be a variety, not always one type of dishes" [Participant 5]

However, the participants were very sympathetic towards the preconditions of the food distributors and understood that it was difficult to cook larger volumes with consistent results at all times.

6. Discussion

6.1 Results discussion

What is the overall acceptability of home delivered meals among older adults?

Meals and preferences

Winter Falk et al. (1996) found that older adults' preferences were strongly impacted by life course events and experiences. Correspondingly, Edfors and Westergren (2012) found that current views, food behavior and ideals were formed already during childhood. The older adults in the present study held strong beliefs on what components certain dishes should consists of, what a proper meal was, what condiments should be accompanying the dishes and on which days certain dishes should be served.

The definition of *tasty* involves offering dishes that are appreciated by the consumers according to NFA (2017b). Edfors and Westergren (2012) found that a majority of the older adults in their study thought the dishes were tasty and varied, and they also appreciated the distinction in content between weekdays and weekends. In the present study the participants also found the dishes tasty and varied but they did not notice any major distinctions between dishes served weekdays and Saturdays. Furthermore, the distinction was not considered important to the participants, Sunday dinners on the other

hand were expected to be more festive and preferably consist of some kind of roast. However, Fjellström, Sidenvall and Nydahl (2001) points out that the preference for Sunday dinners and roasts is rather a generational effect than an age related preference. Most of the participants in the present study were in their 80-90s and grew up in a time where Sundays were the only non-working day and families would get together for dinner. Younger generations of older adults might therefore not share the preference for Sunday roasts and rather have festive Friday or Saturday dinners (Andersson, 1980). This is something that needs to be taken into consideration when planning meals for older adults from different generations.

The present study also showed that the participants always received some type of perceived traditional and seasonal dishes during holidays. However, they did not appreciate dishes where the combination of ingredients did not meet their expectations or if the meals were not served with the "right" condiments. According to Fjellström (2004) there are culinary rules based on traditions and customs that can ruin the meals if they are not met. According to Mattsson Sydner and Fjellström (2006) rationalizing a specific term for a dish such as "fish" instead of "fish au gratin" or "compote" instead of "compote of plums" results in mealtimes with anonymous dishes. The present study showed that including detailed information such as ingredients, commodities and cooking techniques on the menus might help meeting older adults' expectations. According to Herne (1995) descriptive menus can also increase the acceptability of unfamiliar foods.

Just like the results found in Edfors and Westergren (2012) study, the participants preferred dishes cooked the traditional way with traditional spices and flavors. A proper meal consisted of a balanced combination of potatoes, meat and gravy. The older adults in Edfors and Westergren (2012) study did not appreciate modern dishes like for instance pizza. However, the older adults in the present study were not afraid of trying new foods and enjoyed modern dishes and ethnic flavors. Johansson (2013) also found that some older adults enjoyed trying new flavors. This might be because they have grown accustomed to other cuisines due to the increased immigration, charter trips, accessibility of foods and trends during their lifespan. According to Vanhonacker, Lengard, Hersleth and Verbeke (2010) those who prefer traditional food generally do not have an interest for extensive travelling, food innovation and media. Traditional food consumption is also stronger in rural areas and in southern Europe (Vanhonacker et al., 2010). The present study was conducted in close connection to two bigger cities in southern Sweden where

the population is more diverse and where the participants could have been exposed more regularly to modern and ethnic dishes as well.

However, Vanhonacker et al. (2010) also argues that cultural beliefs like the participants in the present study had regarding the Swedish cuisine are associated with traditional food preferences. Cranfield (2013) on the other hand stresses the importance of recognizing dietary acculturation. Dietary acculturation is a two-way process where both migrant groups adopt to the host country's cuisine and host country adopts to the migrant groups cuisines (Cranfield, 2013). To put this into perspective, it would have been interesting to have had participants from other cultures participating in the study to compare the perceptions and acceptability of the meals.

Sensory characteristics

Winter Falk et al. (1996) found that sensory perceptions were important for older adults' food choices and that taste and appearance were the most important sensory characteristics. According to Herne (1995) an increase in color results in higher quality and acceptability ratings. The present study also showed that appearance was considered vital for the sensory perception and acceptability. The participants also meant that the appearance of the dishes indicated what the dishes would taste like and that they could sense the flavors with help from previous food memories and references. According to Krishna (2012) vison impacts how odors and flavors are perceived and imagery can trigger taste cortices, which might help explain how familiarity can indicate what the meals taste like. Thus the appearance of the dishes might have to be consistent with traditional arrangements and dishes. However, in a multicultural society it can be challenging to meet all expectations regarding culturally appropriate ingredients, flavors and condiments (Mattsson Sydner 2002; NFA, 2011b). Therefore it is important to include the views and wishes of older adults when planning the menus.

Because the human senses deteriorate with age, the sensory characteristics might also have to be given more emphasis when planning and preparing meals for older adults. According to Wylie et al. (2011) an increase of natural and familiar enhancers like soy, tomato, Worchester sauce, salt and pepper aid the acceptability of the meals and could compensate for the decreased sense of taste and smell. A combination of tastes and retronasal odors might help older adults recognize and enjoy flavors triggered by memories and emotions despite a loss of taste (Wylie et al., 2011).

Studies have shown that the ability to perceive creaminess is lower among older adults, hardness on the other hand is perceived as more dominant (Field & Duizer, 2016). The changes in texture perception is likely to be associated with the reduction of saliva but also a weakened bite force. The participants in the present study did not appreciate the hardness and chewiness of the blanched carrots or the mushiness of broccoli and cauliflower. Winter Falk et al. (1996) also found that the texture of vegetables were important for the acceptability and food intake among older adults. According to Field and Duizer (2016) food avoidance and modification due to physiological changes and oral health is common among older adults. Foods that are considered difficult to chew and might need modification are stringy meat, hard and crunchy fruits and vegetables, sticky candy, and dry solid bread. Because chewing is vital for releasing volatile molecules that are essential for both taste and odor, more focus ought to be placed on texture (Field & Duizer, 2016).

How do home-dwelling older adults perceive the meal service?

Selection of dishes and portion sizes

According to the Meal Models aspect *tasty* the consumers should be able to choose from a selection of dishes (NFA, 2017b). No previous research was found regarding older adults views on the ideal number of dishes to choose from. Most of the participants in the present study were able to choose from two alternative dishes every day and they were pleased with the selection most of the time. However, there were times where two meal alternative were not considered enough, therefore a third additional dish might help increase the freedom of choice and also increase the feeling of self-determination among older adults. Three alternative dishes also provides a possibility to broaden the selection of dishes to better meet expectations of older adults with different cultural backgrounds, customs and preferences.

In the study of Pajalic and Pajalic (2015) the participants were satisfied with the portion sizes. However in the present study, the participants thought the meals were enormous and they thought the meals consisted of too much meat. The participants expected the meals to be balanced and containing a sufficient variation of different commodities. According to Fjellström, Sidenvall and Nydahl (2001) the amount of food one should eat at specific meals and portion sizes are culturally learnt and just like Winter Falk et al. (1996) found in their study the participants grew up during the great depression when

food was scarce. The participants in the present study described how they were taught to eat whatever was served and never complain about food. The meat consumption has increased with 60 % in Sweden since the 1960s and especially during the 1990s (Friedel, 2013). This might impact the way older adults perceive a balanced meal and the meat proportions.

Influence, need and wishes

According to NFA (2011b) the ability to influence the meals is of great importance for the quality of life among older adults. Mattsson Sydner and Fjellström (2007) stresses that public meals often are planned and intended for both school children and older adults. The participants in the present study described how they were taught by their parents not to complain about food and always eat what is being served. Mattsson Sydner and Fjellström (2006) found in their study that managers planning the menus assumed that plain Swedish food was most suitable for older adults. Because older adults are known not to complain (Mattsson Sydner & Fjellström 2007) there is a risk that the meals are planned on a notion of older adults' acceptability and preferences. Therefore it is important to regularly include the views, needs and wishes of older adults when planning and structuring the meals and food distribution service (NFA, 2011b). However, only one of the participants had been contacted by the food distributor and asked to participate in an evaluation regarding the meals.

Even though the participants in the present study were grateful for the meal service, some participants felt overlooked at times. The shift from delivering warm meals on a daily basis to delivering seven chilled meals once a week caused a lot of worry among some of the participants. One woman had cancelled her meals because she perceived that the meal quality of the last three to four chilled meals were poor in comparison to the warm meals that she had previously received. Choi (1999) found that 15 % of the older adults in her study terminated their food distribution because they were dissatisfied with the quality of the meals or did not like the foods that were delivered. According to Krassie, Smart and Roberts (2000) the temperature and delivery times of home-delivered meals generally fail to meet their targets. In the present study the participants were pleased with both the meals and the temperature of the warm meals at arrival. However, the last couple of chilled meals did not feel fresh and safe to eat. Alternative food service systems like cook-chill or cook-freeze minimizes the risks of foodborne illnesses (Krassie, Smart &Roberts, 2000). However, delivering three meals at a time instead of seven might be a

better option to enhance the perception of freshness and increase the acceptability for the chilled meals.

Consumer acceptability of home delivered meals is important to be able to provide meals that are appreciated and eaten but also to make a nutritional impact in the end (Krassie, Smart & Roberts, 2000). The present study illustrate how important a system of consumer feedback is to obtain an understanding of acceptability of all meal components and the meal service. Questions like "does the food taste well" and "are the mealtimes enjoyable" are inadequate when evaluating older adults' perceptions and acceptability of home delivered meals.

6.2 Methodological considerations

Research design

According to Graneheim & Lundman (2004) the credibility of a study is related to how well the data collection and analysis process address the intended focus of the research study. This includes decisions about selecting relevant methods, contexts and participants. The aim of the present study was to explore the acceptability of home delivered meals among Swedish older adults. Initially an explanatory sequential design was considered for the study and would have involved creating a quantitative survey and then explaining the results by conducting qualitative interviews (Creswell, 2014). However, due to a lack of studies focusing on older adults' perceptions and acceptability of food and meals and the Swedish food provision system, a survey was not able to be accomplished. Therefore an exploratory sequential design was chosen instead, since it starts out by exploring the research field to gain insights for a quantitative survey (Creswell, 2014).

For the first qualitative phase individual interviews were chosen to collect data from the participants. According to Wibeck (2010) both individual interviews and focus groups are appropriate to use when collecting information for a survey. However, focus groups can be difficult to arrange with older adults since they might be unable to leave their homes (Wibeck, 2010). Therefore individual interviews were considered more appropriate for the study than focus groups. Focus groups would have been less time consuming, triggered discussions and interactions that might not be to accomplish with individual interviews (Wibeck, 2010). However, individual interviews provided more depth to the participants' perceptions than the focus groups would have done (Wibeck, 2010).

Content analysis was used to analyse the data since it is a flexible method (Hsieh & Shannon, 2005). However, it was difficult to assign the study to either an inductive or deductive approach since the purpose was to both explore the acceptability of the meals according to NFA (2017b) definition of *tasty* but at the same time allowing insights about older adult's perceptions emerge from the data. This resulted in choosing between a directed content analysis with predetermined categories and a conventional content analysis where the categories were emerged from the data (Hsieh & Shannon, 2005). However, since no existing theory or framework was used a conventional content analysis was chosen. This indistinctive complications might have been a weakness in the data collection process but because the ambition with the present study was to provide findings for a survey in the second quantitative phase, it was found necessary to focus on what was intended with the study.

Recruitment

The main obstacle in this study has been the recruitment process. Five municipalities were contacted and invited to participate in the study. Even though the meal managers had an interest for the topic and the study results, the commitment was weak and short-lived. The meal managers were unable to contact the care recipients and inform them about the study. The recruitment was depending on the help from the assistant nurses from the Home Care Service that met the care recipients on a daily basis. However, they might not share the interest of the study aim and therefore did not prioritize the recruitment of participants. The prolonged recruitment process might potentially have influenced the result due to the short time left for the analysis.

Older adults \geq 65 awarded food distribution are often frail, this was another obstacle during the recruitment process and data collection. Two older adults that agreed to participate in the study were hospitalized during the initial process which led to prolonged recruitment process. Therefore additional municipalities were contacted, this was necessary to be able to complete the study on time. Furthermore, snowball sampling was also applied to meet the deadline. Because the recruitment was difficult, the intent to include participants from both genders, civil state and of both Swedish and foreign origin and with an age variation was not achieved. Initially the inclusion criteria was older adults awarded food distribution, however snowball sampling led to contacts with older adults that for some reason had terminated their food distribution. To be able to get important insights to why they cancelled their meals, they were asked to participate in the

study anyway. Moreover the snowball recruitment resulted in information about the chilled meal system and older adults perceptions of the quality of the chilled meals. This would not have been possible if only older adults currently receiving meals from food distributors were included in the study.

Trustworthiness and credibility

According to Creswell (2014) one particular challenge with an exploratory sequential mixed method design is to focus on the right qualitative findings. Graneheim & Lundman (2004) argues that there are multiple meanings to a text, the understanding of what has been explored is dependent on subjective interpretations. Since there is a close tie between the researcher's philosophical ideas, interpretation and the framework being used (Creswell & Poth, 2017), credibility measures have to be taken into consideration. Credibility is related to process of organizing the data, how well the categories cover and describe the data and if relevant data has been excluded and irrelevant data included (Graneheim & Lundman, 2004). Therefore examples from the coding process were added to the material and method chapter. The present study focus on the manifest content, since the aim was to investigate the perceptions and acceptability of specific aspects of the meals. The categories were created based on codes that had mutual content, and the descriptions of the categories were based on the manifest content and appropriate quotations to be able to enhance transferability (Graneheim & Lundman, 2004).

Qualitative research requires understanding and cooperation between the researcher and the participants, including participants with different perspectives that contributes with a richer variation of descriptions (Graneheim & Lundman, 2004). The decision to involve older adults that cancelled their food distribution was made because it might offer insights about the meals and the food distribution that would not have been retrieved otherwise.

Triangulation, using multiple data sources to provide corroborating evidence can be used to establish credibility (Creswell & Poth, 2017). Therefore the interviews with the older adults were followed up by additional interviews with assistant nurses from the Home Care Service. This way the perceptions and acceptability of the older adults could be either confirmed or discarded. However, studies using only one method can be subjected to biases linked to a particular method (Creswell & Poth, 2017). Therefore a combination of an interview and an observation could have been a way to reduce potential biases and misrepresentations.

Power imbalances and ethical perspectives

Råheim et al. (2016) address power imbalances as "superior" and "inferior" knowledge positions between the researcher and the researched. According to Patel and Davidsson (2011) this is especially important when dealing with exposed groups like for instance older adults. Older adults granted Home Care Service are also often depending on assistance and meal distribution, which puts them in a vulnerable position. This could possibly discourage them from speaking about their true perceptions and instead trying to please the researcher. The outcomes of the study would in that case be invalid. Therefore interviews were considered more appropriate for the study since home-dwelling older adults are a vulnerable group that might not feel comfortable to speak about personal perceptions in groups.

Power imbalances as "superior" and "inferior" knowledge positions between the researcher and the researched can be overcome by minimizing the distinction between the researcher and participants (Råheim et al., 2016). It is important that the interviewer is able interact with the interviewee in a way that encourage rather than inhibit the dialogue by adapting parlance, gestures and manners to the specific context (Patel & Davidsson, 2011). Therefore the interviews were referred to as an informal conversation about food and meals over afternoon coffee. The interview guide also contained opening questions to facilitate the conversation and to strengthen the social interaction between the interviewer and the interviewees.

Råheim et al. (2016) state the importance of not being overly intrusive because it can exploit and harm the participants. The researcher can be involved in stories of great emotional intensity, by reminiscing childhood and adulthood experiences feelings of sorrow and emotional intensity might be triggered (Råheim et al., 2016). It is then important to be sensitive to the risks of the participants and interpret signs and expressions to be able to make choices about the participants' welfare (Råheim et al., 2016). Stories from the participants' lives were shared and described during the interviews. Traumatic experiences of living in an orphanage, divorces, as well as reminiscing meal experiences from their childhood. According to Råheim et al. (2016) being absorbed and touched by the participants' stories might be necessary to understand what is at stake in their life-world. However, no wounds were re-opened and no reactions that could hurt the participants were triggered during the interviews. The researcher was aiming for rich descriptions but avoided sensitive topics to ensure that the participants

were not harmed in any way. The participants were also given the possibility to contact the researcher after the interview if they felt the need to do so.

6.3 Relevance for the subject Food and Meal Science

To be able to provide meals after the needs and wishes of older adults both quantitative and qualitative methods are needed. The present study might help contribute to our understanding of older adults' perceptions and acceptability of the meals in terms of sensory attributes, variation, combinations, themes, portion sizes, wishes and needs. The result of this study might be profitable to the decision makers in the municipalities that organize and distribute the meals and in the end the older adults who receive the meals. Knowledge about their perceptions might help improve the meal quality directly and the life quality among home-dwelling older adults indirectly.

6.4 Future research suggestions

The present study was conducted to explore and gather data concerning older adults' perceptions and acceptability of home delivered meals. The intention was to use the findings to proceed with a quantitative survey regarding the acceptability of the meals. The interviews offered insights about the differences in the meal service between both public and private distributors that would be interesting to proceed with. Studies comparing the overall differences between private and public food distributors could be important to provide equal opportunities for all Swedish older adults despite what municipality they live.

Moreover, studies about older adults' perceptions and acceptability of home delivered meals are needed to be able to provide both optimal meals and meal service for older adults from different generations and with different cultural backgrounds.

7. Conclusion

Overall the participants were pleased with the variation of dishes. However, at times they did not feel like they could influence the meals and meal service. More and a broader selection of dishes might increase older adults perceived freedom of choice and self-determination but also help meeting expectations of older adults with different cultural backgrounds. Generally the meals were considered delicious. Traditional Swedish dishes were appreciated the most but they were open to ethnic dishes as well. Flavor enrichment and optimized texture and appearance might compensate for sensory deteriorations.

Familiar dishes and a conscious choice of condiments might help increase the sensory perception of the meals. Descriptive information on the menus such as ingredients, commodities and cooking techniques might also help meeting older adults' expectations.

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Appendices

Appendix 1. Letter to the home care service

Information till hemtjänst

Studie av äldres uppfattningar och erfarenheter om måltidskvalitet med måltidsdistribution

Mitt namn är Sarah Forsberg och håller just nu på att skriva magisteruppsats i mat- och måltidsvetenskap vid Högskolan i Kristianstad. Socialstyrelsen utvärderar vårdtagarnas upplevelser av hemtjänsten kontinuerligt och utvärderingen innefattar även måltiderna. Frågor som "smakar maten gott" och "är måltiden en trivsam" ställs men det säger ganska lite om hur det upplever den. Det finns också väldigt lite studier i Sverige om hur äldre uppfattar måltiderna i form av sensoriska egenskaper, portionsstorlek, variation, utbud, ingredienser och temperatur. Resultatet av studien skulle kunna användas av kostenheterna för att förhoppningsvis optimera måltiderna.

Övergripande information:

För att kunna genomföra studien behöver jag komma i kontakt med fem vårdtagare över 65 år som har måltidsdistribution och som är intresserade av att delta i min studie. Jag kontaktar sedan vårdtagarna och bestämmer tid för intervju. Jag överlämnar engångskameror till vårdtagarna 1,5 vecka innan intervjutillfället så att de kan ta två bilder på sina matlådor varje dag i en vecka inför intervjun. Fotona kommer att vara utgångspunkten för samtalet och är ett redskap för att väcka de äldres sinnen samt hjälper mig att skapa en förståelse för deras upplevelser. Intervjuerna kommer att vara cirka 1 timme. Intervjun kommer att spelas in med hjälp av en bandupptagare för att jag ska kunna sammanställa informationen, därefter kommer materialet att raderas. Fokus för studien är de äldres upplevelser om måltiderna och inte hemtjänstens arbete.

Självklart är deltagandet frivilligt och vårdtagarna kan avbryta sitt deltagande närsomhelst utan att förklara varför. All information kommer att hanteras konfidentiellt och deltagandet är anonymt. Materialet kommer enbart att användas i forskningsändamål.

Detta innebär:

- 1. Ni väljer ut och kontaktar fem vårdtagare som Ni tror skulle vara intresserade av att delta. Gärna en blandning av både män och kvinnor, med svensk och utländsk härkomst, sammanboende och ensamboende och några lite yngre runt 65-70 år och några äldre runt 75-80 år. Naturligtvis bara så länge det är möjligt och genomförbart.
- 2. Ni förmedlar sedan vidare de äldres medgivande och kontaktinformation till mig så jag kan kontakta dem och bestämma tid för intervju samt lämna engångskamera till de äldre en vecka innan intervjun.

Tack för Er hjälp!

Om Ni har några frågor eller funderingar så kontakta mig för mer information.

Med vänlig hälsning Sarah Forsberg sarah.forsberg@hkr.se

Appendix 2. Missive letter to the participants

Missivbrev till deltagare

Studie av ensamstående äldres uppfattningar och erfarenheter om måltidskvalitet med måltidsdistribution

Mitt namn är Sarah Forsberg och håller just nu på att skriva magisteruppsats i mat- och måltidsvetenskap vid Högskolan i Kristianstad. Socialstyrelsen utvärderar vårdtagarnas upplevelser av hemtjänsten kontinuerligt och utvärderingen innefattar även måltiderna. Frågor som "smakar maten gott" och "är måltiden en trivsam" ställs men det säger ganska lite om hur Ni vårdtagare upplever maten. Det finns också väldigt lite studier i Sverige om hur äldre uppfattar måltidskvaliteten i form av sensoriska egenskaper, portionsstorlek, variation, utbud, ingredienser och temperatur. Resultatet av studien skulle kunna användas av kostenheterna för att optimera måltidskvaliteten.

För att kunna genomföra studien behöver jag intervjua Er, i Ert hem, för att på så sätt få mer kunskap om hur Ni upplever måltiderna som Ni får levererade. Inför intervjun kommer jag att lämna en engångskamera hos Er och Ni kommer att få fotografera Era måltider i en veckas tid innan vi träffas för intervjun.

Intervjun kommer att vara cirka 1,5 timmar. Samtalet kommer att spelas in med hjälp av en ljudupptagare för att jag ska kunna sammanställa informationen och därefter kommer materialet att raderas. Självklart är deltagandet frivilligt och Ni kan närsomhelst utan att förklara varför avbryta Ert deltagande. All information kommer att hanteras konfidentiellt och Ert deltagande är anonymt. Materialet kommer enbart att användas för studien.

Vad innebär detta för dig som deltagare:

- 1. Ni vill delta och skriver under ett medgivande som ger mig tillstånd att kontakta Er per telefon för att bestämma tid för intervju och överlämning/ hämtning av engångskamera.
- 2. Jag kommer och lämnar kameran till Er i Er bostad och presenterar mig själv och ger lite instruktioner om kameran.
- 3. Ni fotograferar Er matlåda två gånger vid varje matleverans i 1 veckas tid och sedan hämtar jag kameran igen för framkallning av foto.

5. Jag kommer till Er bostad när fotona är framkallade och intervjuar Er angående Era upplevelser av måltidskvaliteten i form av smak, doft, portionsstorlek, råvaror, kryddor, önskemål, alternativ och tillbehör mm.

6. Ert deltagande kommer att vara anonymt och resultatet kommer enbart att användas i forskningsändamål inom vår studie.

Härmed godkänner jag att Sarah Forsberg under ovan kriterier intervjuar mig angående mina uppfattningar av måltiderna som levereras till mig med måltidsdistribution.

Datum och ort:						
				-		
Underskrift:						

Tack för Er medverkan!

Om Ni har några frågor eller funderingar är Ni självklart välkomna att kontakta mig för mer information.

Med vänlig hälsning Sarah Forsberg sarah.forsberg@hkr.se

Appendix 3. Interview guide

Intervjuguide- djupintervjuer

Hemmaboende äldres uppfattningar och erfarenheter av måltidskvaliteten

Presentation av mig och om bakgrunden till studien. Förklarar hur intervjun kommer att gå till, att deltagandet är helt anonymt och att de närsomhelst kan avbryta sitt deltagande utan att de behöver förklara varför

att de behöver förklara varför.	
Bakgrundsfrågor:	
Ålder:	
Kön:	

Måltidsdistribution: **Inledande frågor:**

Civilstånd:

- -Kan du beskriva vad är en god måltid för dig?
- -Hur har dina måltider och matvanor från din barndom och uppväxt präglat dina matvanor och preferenser?
- -Har du några matminnen som du kan dela med dig av?

Nyckelfrågor:

MÅLTIDSUTBUDET:

- -Anser du att måltidsutbudet är varierande?
- -Anser du att det finns tillräckligt med måltidsalternativ att välja emellan?
- -Anser du att tillbehören passar till måltiderna och är tillräckliga?
- -Vilken typ av rätter föredrar du?
- -Anser du att portionsstorlekarna är lagom/tillräckligt stora?
- -Anser du att maten är lagom/ tillräckligt varm när den levereras?
- -Anser du att måltiderna skiljer sig mellan veckodagar, helgdagar och högtider?
- -Kan du nämna några maträtter som du gärna äter på vardagarna och några som du gärna äter på helgen/när du firar något?
- -Är det någonting som du saknar, eller som du skulle vilja ha mer av?
- -Känner du att du kan påverka utbudet av rätter?
- -Känner du att dina önskemål blir mötta?

MÅLTIDSKVALITETEN:

- -Vad är kvalitet för dig?
- -Vilka faktorer anser du är viktiga för att måltiden ska vara av god kvalitet?
- Vad är viktigt för dig när du ska välja vad du ska äta? Vad betyder t ex:
- -Anser du att måltiderna som levereras till dig, lever upp till dina förväntningar?
- -Vad är nyttig mat för dig?
- Är det viktigt för dig att maten är nyttig och hälsosam?
- -Vad är viktigt för dig med tillagningen av maten?
- -Vilka faktorer anser du är viktiga när det gäller smaken?
- -Anser du att smaken på måltiderna uppfyller dina förväntningar?
- -Hur viktigt anser du att det visuella är, dvs hur måltiden ser ut när den serveras?
- -Anser du att utseendet på de måltiderna uppfyller dina förväntningar? Om inte varför?
- -Vad anser du vara viktigt när det gäller textur och konsistens på måltidens komponenter?
- -Anser du att måltidernas texturer och konsistenser lever upp till dina förväntningar?

Avslutande frågor:

Sammanfattning av vad som framkommit. Har jag förstått Dig rätt?

Slutfrågor:

-Är det något som du känner att du vill tillägga? Något som jag kanske missat att ta upp?

Tack för din medverkan!

Appendix 4. Interview guide Home Care Service nurses

Intervjuguide- djupintervjuer

Hemmaboende äldres uppfattningar och erfarenheter av måltidskvaliteten

Bakgrundsfrågor:

- -Hur länge har du arbetat som undersköterska?
- -Har ni privat eller offentlig matdistribution i er kommun?

Nyckelfrågor:

MÅLTIDSUTBUDET:

- -Anser du att måltidsutbudet är varierande?
- -Anser du att det finns tillräckligt med måltidsalternativ för de äldre att välja emellan?
- -Anser du att tillbehören passar bra till måltiderna och är tillräckliga?
- -Vilken typ av rätter föredrar dina vårdtagare?
- -Anser portionsstorlekarna är lagom/tillräckligt stora för att dina vårdtagare ska bli mätta?
- -Anser du att maten är lagom/ tillräckligt varm när den levereras?
- -Anser du att måltiderna skiljer sig mellan veckodagar, helgdagar och högtider?
- -Finns det något som dina vårdtagare känner att de saknar, eller som du skulle vilja ha mer av?
- -Har dina vårdtagare möjlighet påverka utbudet av rätter?
- -Känner dina vårdtagare att deras önskemål blir mötta?

MÅLTIDSKVALITETEN:

- Vad upplever du är viktigt för de äldre för att måltiderna ska anses vara av god kvalitet?
- -Anser du att måltiderna lever upp till de äldres förväntningar?
- -Vad upplever du är viktigt för de äldre när det gäller maten?
- -Vad är din uppfattning av de äldres erfarenheter och perception av smak, doft, textur och utseende när det gäller måltiderna?
- -Anser du att det visuella är viktigt för de äldre, dvs hur måltiden ser ut när den serveras?
- -Vad anser du är viktigt när det gäller textur och konsistens på måltidens komponenter?
- -Anser du att måltidernas texturer och konsistenser lever upp till de äldres förväntningar?

Slutfrågor:

-Är det något som du känner att du vill tillägga? Något som jag kanske missat att ta upp?

Tack för din medverkan!