



Nutrition counseling in Germany:

A quantitative online survey of German Nutrition Society (DGE) nutrition consultants

Eva-Maria Endres, Edda Breitenbach, Christoph Klotter

Abstract

Study question: What is the status quo in nutrition counseling in Germany from the perspective of nutrition consultants—in particular with regard to diagnoses, duration of counseling, content, didactic methods, consultant-client-interaction, the effects of nutrition counseling and nutrition consultants' income?

Methodology: A total of 158 DGE nutrition consultants took part in the online survey. The survey was comprised of 11 question categories with a total of 22 questions (15 closed questions and 7 open questions). The closed questions were analyzed in a descriptive manner and the open questions were analyzed using quantitative content analysis.

Results: Nutrition counseling is required to deal with a broad spectrum of conditions—including obesity and food intolerances—using a variety of methods and information about nutrition and life issues. Nutrition counseling focuses less on conveying knowledge and more on exploring how an individual can implement health-promoting changes in a way that suits them.

Keywords: Nutrition counseling, counseling methods, obesity, food intolerances, allergies

Introduction

There have been various international studies on the general efficacy of nutrition counseling conducted in various settings (individual consultations, group sessions, and online programs) and in the context of treatment of a wide variety of somatic and psychosomatic conditions (including [1–8]). Despite this, there has been little research into nutrition counseling in Germany. In particular, there is a lack of studies investigating the subjective perspective of nutrition consultants towards nutrition counseling.

Nutrition counseling is only funded in the German healthcare system within certain narrowly defined parameters. Health insurance providers' total payouts for treatment-supporting therapies and health aids (known as "Heil- und Hilfsmittel"), for preventative measures and for self-help measures are relatively low [9, 10]. Nutrition counseling in accordance with Section 20 of Volume V of the German Social Security Code (Fünftes Buch Sozialgesetzbuch—SGB V) and individual nutrition counseling in accordance with Section 43 GDB V are services to which the patient only has limited entitlement. Steinkamp [11] provides a comprehensive overview of nutrition counseling in the German healthcare system. In general, the client must request nutrition counseling themselves, pay for it in advance, and bear over 50% of the costs. Furthermore, the authorized treatment duration is usually five sessions.

Therefore, in order to gain a clearer picture of nutrition counseling in the German healthcare system, it is useful to collect data on the current state of nutrition counseling in this context and on the conditions under which counseling takes place based on the subjective perspective of nutrition consultants.

Study question

The objective of this study was to collect data about the status quo of nutrition counseling

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in Germany from the subjective perspective of nutrition consultants. The key questions were the following: What are the framework conditions in which nutrition counseling takes place? Which clients are given nutrition counseling? What is the content of the counseling sessions and what methods are used to convey the information? How do nutrition consultants view the relationship between consultant and client? What do consultants think about the effects of nutrition counseling? What are the conditions that should be in place in order to make a change to the diet?

Methodology

A mixed methods approach was used to collect the data on nutrition counseling in Germany for the purposes of this research project.

This publication will present the results of the online survey. In addition, three qualitative interviews of nutrition consultants and their clients were carried out [12].

An online questionnaire with eleven question categories (♦ Table 1) and a total of 22 questions (15 closed questions and 7 open questions) was created. In order to conduct the survey, 608 email addresses belonging to nutrition consultants in Germany were gathered via the German Nutrition Society (DGE) website. Of these e-mail addresses, 47 were invalid. An invitation e-mail was sent to the e-mail addresses, followed by a reminder e-mail six weeks later. The survey period was from November 2017 to January 2018.

The data were analyzed in a descriptive manner using the EvaSys survey software. The responses to the open questions were categorized using an inductive process and were then analyzed quantitatively [13].

Results

Out of the 561 (608 minus 47) nutrition consultants who were invited to participate in the survey, 158 took part, corresponding to a response rate of 28%.

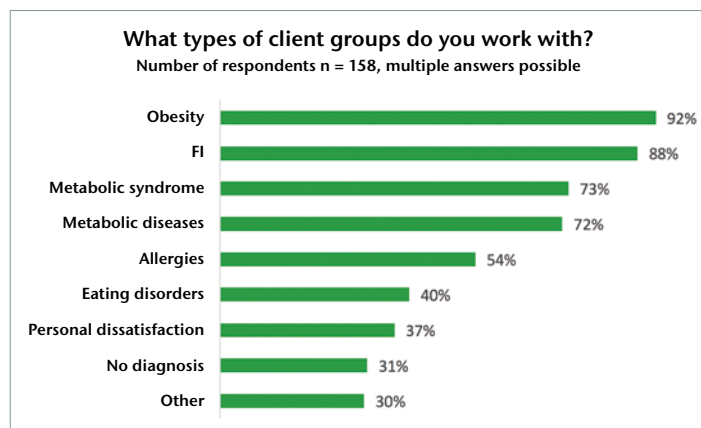


Fig. 1: Frequency of conditions that nutrition consultants encounter as percentages (multiple answers possible)
FI = food intolerances

1.	Information given about clients (diagnosis, age, with/without physician's referral)
2.	Number of counseling sessions
3.	Duration of counseling
4.	Content of counseling sessions
5.	Counseling methods
6.	Consultant-client-relationship
7.	Effects of counseling
8.	Required factors for implementation of a change of diet in the client's everyday life
9.	Barriers to implementation of a change of diet in the client's everyday life
10.	What I would like to add
11.	Personal details

Table 1: The question categories from the online questionnaire

Data on clients

What types of client groups do you work with? Diagnosis/diagnoses:

Almost all of the nutrition consultants work with clients with obesity (97%) and food intolerances (88%). ♦ Figure 1 shows the conditions that were mentioned, organized by frequency of mentions (multiple answers were possible).

What are the three most common diagnoses you encounter? (Open question)

This largely confirmed the results of the previous question. The respondents also mentioned many other diagnoses. The spectrum of diagnoses ranged from various gastrointestinal conditions to dementia, malnutrition, cancer, sports nutrition, nutritional supplementation, special diets (such as vegan diets), disabilities, mental health conditions and child and infant nutrition.

Main age group

The main age group nutrition consultants work with is adults between the ages of 20 and 65 years (90%). It is rarer for other age groups to be nutrition counseling clients. Children up to 13 years of age account for 4% of clients, adolescents between the ages of 14 and 19 years account for 3% and older people over 65 years of age also account for 3%.

Clients referred by a physician (estimated percentage)

On average, 86% of clients are referred for nutrition counseling by a physician.

Number of counseling sessions

Among the nutrition consultants surveyed, almost two thirds of clients attend 4–5 nutrition counseling sessions, and it is rare for them to attend more (♦ Figure 2).

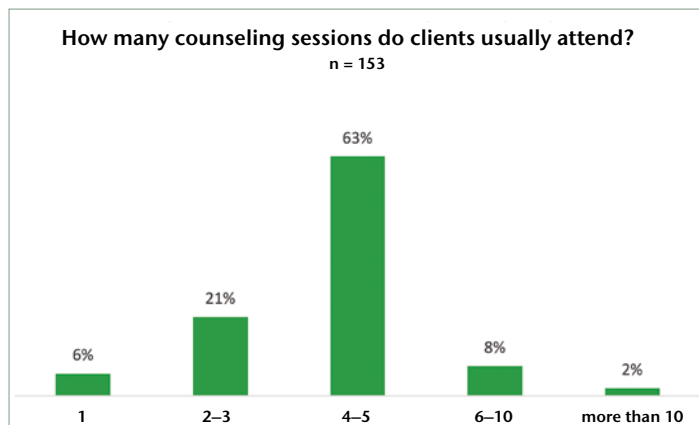


Fig. 2: Number of counseling sessions

Duration of counseling

For the most part, the duration of counseling was in the range from a few months to half a year (♦ Figure 3).

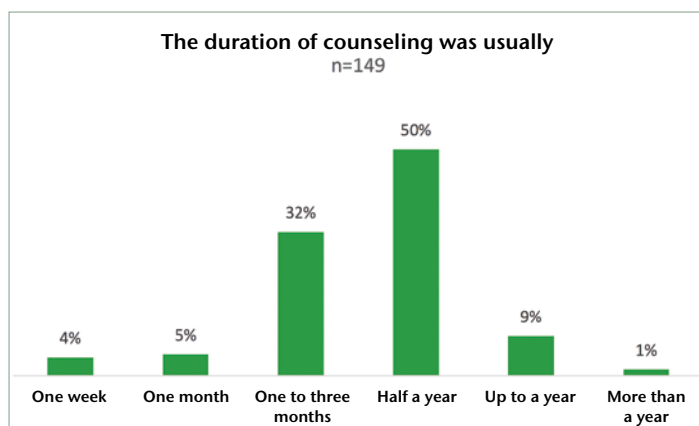


Fig. 3: Duration of counseling

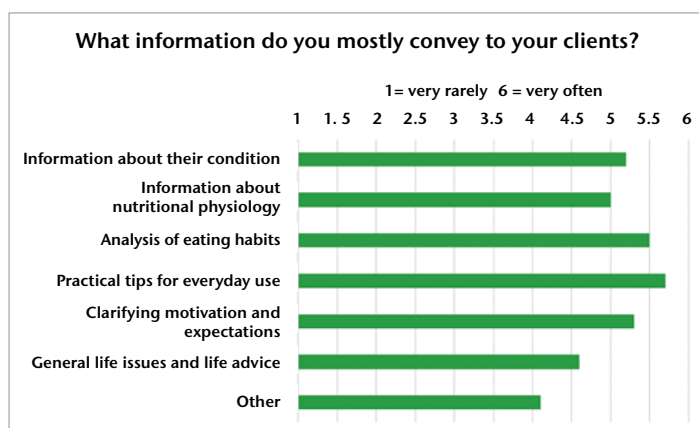


Fig. 4: Content of counseling sessions

Content of counseling sessions

What information do you mostly convey to your clients? Please rate the frequency (6 = very often, 1 = very rarely)

Almost all of the response options were answered with “often” (♦ Figure 4). The responses under “other” also revealed a wide range of nutrition-related and general life topics. These included sport, media consumption, bullying, self-perception and body image, stress management, eating at work, nutrition, child rearing, counseling family members, relationships with spouses, living in a care home, nutritional psychology and behavior change, shopping, practical kitchen training and food labeling.

Counseling methods

What didactic methods do you use for nutrition counseling? Please rate the frequency (6 = very often, 1 = very rarely)

Out of the 7 possible options, 5 were answered with “often” (♦ Figure 5). Under “Other”, many other methods were also mentioned, including training in how to shop for and enjoy food, methods of behavior change according to various schools, nutritional biography, nutritional history, packaging, photos, charts, tastings, systemic therapy and involvement of relatives, exercise course modules and on-line counseling.

Consultant-client-relationship

How would you mostly rate the relationship between yourself and your clients?

In the survey, the consultant-client-relationship was rated as 4.4 on average on a scale where 1 is a clear expert to layperson (vertical) relationship and 6 is a collaborative (horizontal) relationship.

Is there anything you would like to add here? (Open question)

64 out of 158 participants added comments here. They considered the following to be important in terms of the consultant-client-relationship:

- Whether the consultation resembles more of a “horizontal” collaborative discussion or more of a “vertical” transfer of information from consultant to patient depends on external factors such as the patient’s level of education and their condition.
- 44 out of 64 nutrition consultants stated in their answers to the open question that a collaborative or “horizontal” approach to nutrition counseling that includes facilitating

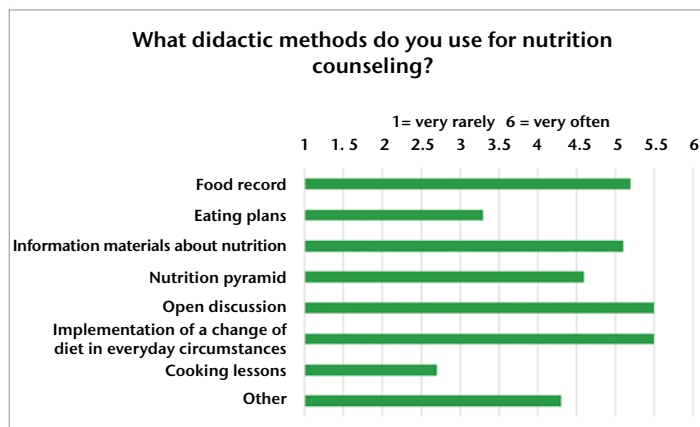


Fig. 5: Counseling methods

self-help is at the core of how they provide nutrition counseling. For them, fostering such a relationship is an essential prerequisite for successful nutrition counseling. These nutrition consultants see themselves as the experts when it comes to information about nutrition, but they see the client as the expert on their own everyday eating habits.

- For these nutrition consultants, counseling is characterized by empathy. The relationship with the client is described using words such as “holding in high esteem”, “trustful”, “client-centered” or “empathetic”.
- This individual approach was described as a strength of nutrition counseling compared

Positive effects of nutrition counseling	Number of mentions
Empowerment, competence and confidence in selecting and preparing food, “facilitating self-help”	33
Improvement of physiological parameters such as better blood values, improvement of symptoms, weight loss or weight gain in the case of eating disorders	31
Improved implementation of a change of diet in everyday life	31
Increased motivation to set realistic goals together	27
Increased capacity for self-monitoring and improved self-perception, better awareness and a more positive approach to oneself	22
Improved knowledge about nutrition	19
Increased well-being and life satisfaction, better quality of life	15
The “eureka moment”, change of perspective, providing ideas and impetus, increasing awareness	14
Support, empathy, the client feels understood	13
Unearthing emotional associations and patterns of thinking	13
Increasing feelings of self-worth	6
Greater confidence in handling conditions in everyday life (diarrhea, migraines, eating disorders)	5
Greater confidence in handling allergies and food intolerances in everyday life	4
Total	233

Table 2: Positive effects of nutrition counseling mentioned by survey respondents, categorized quantitatively

Critical remarks about the effects of nutrition counseling	Number of mentions
Whether or not change takes place depends on motivation, the level of suffering caused by the condition and compliance. In some clients, these factors are not sufficiently present for change to occur.	15
The effects depend on the diagnosis and vary widely.	11
Change only occurs in a certain percentage of patients.	7
The nutrition counseling period that health insurers cover is too short to achieve meaningful effects.	4
Only short-term effects can be achieved in the case of obesity.	4
Obesity in children is very difficult to treat effectively because change depends on the family environment.	3
A one-off session, for example at an outpatient clinic, has little to no effect.	2
Total	46

Table 3: Critical remarks about the effects of nutrition counseling mentioned by survey respondents, categorized quantitatively



to other methods aimed at changing the diet and compared to treatment by a physician.

The effects of nutrition counseling

What, in your opinion, are the effects of your counseling? (Open question)

130 out of 158 participants answered this question, making a total of 279 different comments. ♦ Table 2 shows the summarized positive remarks made in relation to the categories and the number of times these remarks were made. There were also some critical remarks (♦ Table 3).

Required factors for implementation of a change of diet in the client's everyday life

What factors present in the client's everyday life support a change in diet? (Open question)

The question about factors that support a change of diet was answered by 130 participants who mentioned a total of 261 different factors. The social environment is by far the most important factor (♦ Table 4).

Factors that support a change of diet	Number of mentions
Supportive social environment (family, friends, work)	72
Sufficient time to have the required "mental space"	21
A structured, ordered everyday life	19
Realistic goal setting, good level of motivation	18
Practical (applicable) recommendations	16
Individually tailored dietary rules, finding one's own way of doing things	12

Table 4: Factors in the client's everyday life that support a change of diet (10 or more mentions)

Factors directly related to knowledge about nutrition were mentioned only rarely. These included the nutrition pyramid (1), food labeling (1), choosing the right foods (1), and health education (1).

Barriers to a change of diet	Number of mentions
Stress (in professional or private life)	63
No support from one's social network	53
Psychological problems	25
Routines, habits	17
Limited financial resources	12
Poor cooking skills	10

Table 5: Barriers to a change of diet in the client's everyday life (10 or more mentions)

Barriers to implementation of a change of diet in the client's everyday life

What factors in the client's everyday life are a barrier to a change in diet? (Open question)

128 participants mentioned 278 factors here. Stress and the social environment were the two most frequently mentioned barriers (♦ Table 5).

What I would like to add (open question)

41 respondents left a total of 51 different comments in the "What I would like to add" field. The most frequent comments (12 mentions) were about the fact that nutrition counseling is undervalued throughout the healthcare system, with a lack of recognition from physicians in particular. Another response here was about the fact that nutrition counseling is not well funded and as a result, nutrition consultants are not well remunerated (7) and have a high workload (4). The respondents also mentioned that as trained nutrition experts, they often find themselves in a difficult position due to the overabundance of available nutrition information, much of which is of questionable reliability (5).

Information about the nutrition consultants

Age (years)

♦ Figure 6 shows the age distribution of the nutrition consultants surveyed.

Sex

Out of 156 people surveyed, 3 were male (1.9%) and the rest were female (98.1%).

Professional qualifications (open question)

135 participants made comments here. Three simply stated the title "nutrition consultant" without providing any further details about their training. ♦ Figure 7 shows the distribution among the remaining respondents for this question. Where a respondent mentioned multiple qualifications, only the highest qualification was counted.

Average net income

Almost a third of the respondents earn less than €1,000 per month (net income) from their work as nutrition consultants. 78% earn less than €2,000 net (♦ Figure 8). In the subsequent question about employment status, 3 respondents added the remark that they work part-time.

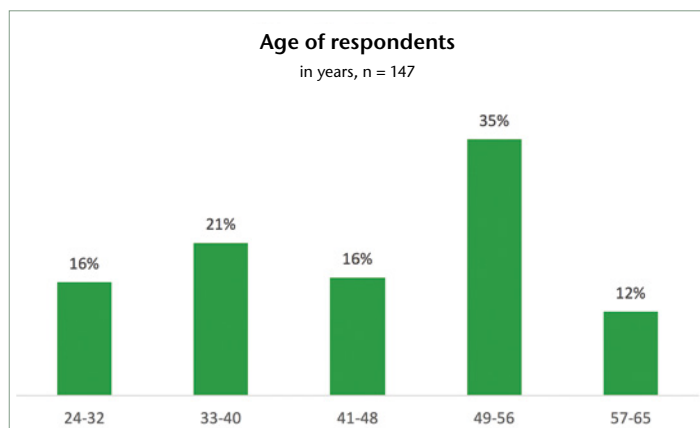


Fig. 6: Age of respondents

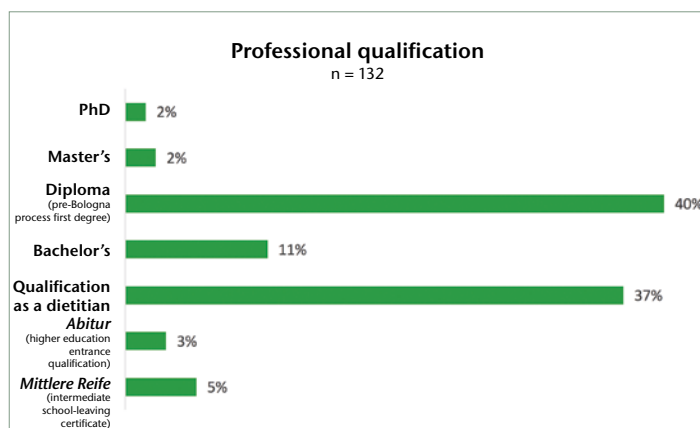


Fig. 7: Highest professional qualification mentioned by the respondents

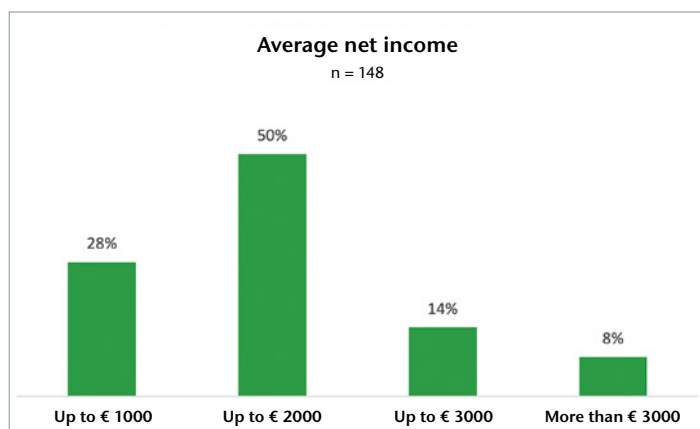


Fig. 8: Average net income

Freelancer or employee, if an employee, employed by... (clinic/health insurer/industry/other)

54% of the respondents (answers n = 157) were freelancers and 46% were employees. Among the employees, 50% were employed at a clinic. 6% were employed by a health insurer, 2% were employed in industry and 42% were employed by other facilities such as pharmacies, medical practices or fitness studios. In the "Other" field, 23 respondents said they worked both as freelancers and as employees and three said they worked part-time.

Number of years working as a professional in nutrition counseling

On average, the respondents had 16 years professional experience. 35% had 9 years or less and 65% had 10 years or more.

Discussion

Nutrition consultants in Germany encounter a wide variety of conditions in their work. This means that not only must they use a wide range of methods and strategies, but they must also have a very broad foundation of expert knowledge. It is therefore not surprising that the respondents identify the effects of their counseling in many, very varied areas. According to this view, nutrition counseling does much more than "just" change food choices and the amount of food consumed.

The main condition that respondents deal with is obesity. Obesity is difficult to treat and requires long-term support [14], which is currently not funded by health insurers [15]. For the most part, nutrition counseling takes the form of 4–5 sessions over the course of half a year. However, research in the field of neuroscience has shown that behavior change may be more likely to take place over a longer period of two to three years [16]. Studies in the field of nutritional science have also shown that more regular and longer follow-up achieves better results (e.g. [8, 17–19]).

There is therefore a contradiction at play here on the societal level. On the one hand, society bemoans the problem of obesity [20, 21], and on the other hand, the treatment system set up by that society is not conducive to effective treatment.

Nutrition counseling is mainly given by physicians. According to the statements of the nutrition consultants surveyed, it is hardly even perceived as a form of intervention that is present in society and that can be requested by those who need it.

From the respondents' perspective, imparting knowledge about nutrition is just one element of nutrition counseling among many. Factors directly related to knowledge about nutrition also appear to have only a minor effect on dietary change [14, 22]. Therefore, the image of nutrition counseling as an intervention that mainly involves imparting knowledge must be challenged. In fact, it focuses more on the implementation of individual dietary change in practice and on working out how to do this to-



gether with the client. It is also clear that nutrition is inextricably linked to the social context, which is to say the context of spousal relationships, family and everyday life. This is supported by the high number of mentions of the importance of the social environment in the question about factors that support dietary change and factors that are barriers to it.

According to the respondents, nutrition counseling that focuses on practical implementation in everyday life and on the client and their social environment is best implemented by taking a client-centered approach. This view of counseling has been shaped by the basic variables proposed by Carl Rogers [23]. The focus here is on empathy and on holding the client in high esteem.

Limitations

Due to the fact that participation was voluntary and the participants were selected via the German Nutrition Society website, the results are not representative. Participation might have been affected by factors such as commitment, available time, or personal interest. The questionnaire was not tested in a pre-test prior to use. As a result, there is too little differentiation in the answers in some categories. This study should be viewed as a pilot study that paves the way for further research. In addition, further differentiation could have been implemented (such as differentiation between prevention and treatment or between individual and group counseling) in order to improve the classification of the results with regard to the corresponding counseling practice.

Conclusions

The manner in which nutrition consultants describe the content, methods and effects of nutrition counseling here raises the question of whether the prescribed quality standards for the implementation of nutrition counseling [24–26] should be revised with regard to the factors mentioned above, such as the consultant-client-relationship and the content of counseling, which is important to clients. The contextual conditions surrounding nutrition counseling, such as the usual duration of the counseling period and financial remuneration may be topics that professional bodies will wish to focus on in the future. Given the importance of nutrition for health, there is a need for far greater recognition of nutrition counseling as a key component of the healthcare system. Achieving greater recognition will require improved cooperation with physicians as well as improved awareness of nutrition consultants' skills among laypeople and the general public.

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Conflict of Interest

The authors declare no conflict of interest.

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