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Factors associated with dietary behaviour change support in patients: A qualitative study among community nurses

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Abstract

Aim: To explore which factors, influencing dietary behaviour change support among patients by Dutch community nurses (CNs; nurses), are key focal points in training programmes.

Background: Nurses have an important role in counselling patients towards healthier dietary behaviour to prevent or delay long-term complications from chronic lifestyle-related diseases. Most nurses do not incorporate dietary behaviour change support in their routines to the fullest potential.

Design: A qualitative descriptive study.

Methods: Data were collected in the Netherlands in 2018–2019 via semi-structured face-to-face interviews with 18 nurses. Interview guide themes were informed by the COM-B model, using validated descriptions in Dutch. Data were recorded, transcribed and analysed using inductive thematic analysis.

Results: Factors that affected dietary behaviour change support were linked to (1) the nurse (role identity, dietary knowledge and competences such as methodical approach, behaviour change techniques and communication techniques), (2) nurse–patient encounter (building a relationship with a patient, supporting patient autonomy and tailoring the approach) and (3) cooperation and organizational context.

Conclusion: It is of utmost importance to pay attention to nurses' role identity regarding dietary behaviour change support, as this underlies professional behaviour. This should be accompanied by improving competences on dietary behaviour change support. Focus on competences regarding the application of behaviour change technique is crucial. Furthermore, having a relationship of trust with a patient was important for discussing sensitive topics such as diet.

Impact: The promotion of a healthy diet provides opportunities to contribute to patient autonomy and self-management. Well-fitted training offers for (senior) nurses will lead to improved professional practice of nurses, leading to healthier dietary behaviour of patients.

Patient or Public Contribution: A nurse provided feedback on the interview guide.

KEYWORDS
community care, counselling, health promotion, nurse–patient interaction, nursing, nutrition, qualitative approaches

1 | INTRODUCTION

Community nurses (CNs) have an important role in health promotion, involving the support of healthy lifestyle behaviours such as dietary behaviour. The need to reorient health services from curative care towards preventive care and health promotion is emphasized in both national and international reports (Ministerie van Volksgezondheid Welzijn en Sport, 2022; World Health Organization, 2020). Health promotion aims to prevent or delay long-term complications from chronic lifestyle-related diseases and addresses lifestyle factors such as diet, physical activity, smoking and alcohol consumption, which are risk factors for those diseases (World Health Organization, 2012). A health promotor role is included in nurses' competency profiles in various countries (College of Nurses of Ontario [CNO], 2018; Landelijk Overleg Opleidingen Verpleegkunde [LOOV], 2015; Nursing and Midwifery Council [NMC], 2010). Lifestyle change support implies promoting a healthier lifestyle by using behaviour change techniques (BCTs) such as behavioural counselling, motivational interviewing and providing education and advise (Noordman et al., 2012). The present paper focuses on dietary behaviour change support, implying the following practices of nurses: observing whether problems exist regarding dietary behaviour of patients, which is broader than malnutrition; addressing patients' dietary behaviour; motivating patients to eat and drink healthier; and supporting patients in goal setting and action planning regarding dietary behaviour. These practices align with the first phases of the nursing process (Rosendal et al., 2019). A healthy diet includes fruits, vegetables, wholegrain products, pulses, dairy and unsweetened beverages, while it involves low intakes of processed meat, sugar-sweetened beverages and salt, as described by the Dutch Dietary Guidelines (Gezondheidsraad, 2015). Dietary behaviour change was shown to improve health indicators such as waist circumference, blood pressure and fasting blood glucose levels (Mendonça & Lopes, 2012; Zahtamal et al., 2017). Since the diet is an essential element of basic nursing care according to the Fundamentals of Care (Kitson et al., 2010), dietary behaviour change support entails a role for all nurses (LOOV, 2015). Some of these nurses provide care in the patient's own home. These CNs, also called home care nurses, are generalist healthcare professionals with a crucial role in primary healthcare, together with the general practitioner, in the Netherlands (Rosendal et al., 2019). CNs are in a key position to support dietary behaviour change (Rosendal et al., 2019; World Health Organization, 2020). Nevertheless, most CNs did not incorporate dietary behaviour change support in their routines to the fullest potential (Håkonsen et al., 2019, 2018; van Hell-Cromwijk et al., 2020; Ziylan et al., 2015).

2 | BACKGROUND

So far, only a few studies focused on dietary care specifically provided by CNs (Green et al., 2014; Håkonsen et al., 2019; Ziylan et al., 2015). These studies, focusing on either malnutrition documentation or undernutrition monitoring and treatment, show that CNs' knowledge and attitude, role perception and cooperation and organizational context influenced their professional practice. A lack of dietary knowledge was a prominent nurse-related barrier (Håkonsen et al., 2019). Accordingly, nurses have previously expressed that they need initial and ongoing training and dietary education (Green et al., 2014; Ziylan et al., 2015). Besides, limited undernutrition awareness could impede CNs from monitoring undernutrition (Ziylan et al., 2015). Another barrier for providing dietary care was confusion and insecurity regarding dietary care responsibilities, while perceiving malnutrition documentation or undernutrition monitoring as their responsibility was a facilitator (Håkonsen et al., 2019; Ziylan et al., 2015). CNs could feel insecure when working in the patient's own home, perceiving their role as a guest and not a professional with knowledge, skills and valuable insights (Håkonsen et al., 2019). Besides, since patients could perceive diet as a sensitive topic as it is related to body weight (Blackburn et al., 2015) and interferes with their privacy (Hestevik et al., 2019), CNs struggled with dealing with patient autonomy, while having a relationship with patients was helpful (Hestevik et al., 2019). Influence of interprofessional cooperation and organizational context on dietary care provision by CNs has also been studied, where the focus was on either malnutrition documentation or undernutrition monitoring and treatment. The expectation throughout the organization that nutritional screening was undertaken was a perceived facilitator (Green et al., 2014; Håkonsen et al., 2019). A lack of time was a perceived barrier (Green et al., 2014; Håkonsen et al., 2019; Hestevik et al., 2019; Ziylan et al., 2015). A cooperation-related barrier was that referral options to dieticians were limited (Green et al., 2014).

Similar facilitators and barriers were found by qualitative studies among practice nurses (Gianfrancesco & Johnson, 2020; Groenendijk-van Woudenbergh et al., 2021). Having dietary knowledge was a facilitator as well as having a relationship with the patient (Groenendijk-van Woudenbergh et al., 2021). A lack of clarity about CNs' role and responsibilities was hindering (Gianfrancesco & Johnson, 2020; Groenendijk-van Woudenbergh et al., 2021), as well as lack of time (Groenendijk-van Woudenbergh et al., 2021) and unclarity regarding the referral to dieticians (Gianfrancesco & Johnson, 2020). Since practice nurses work in a different setting with different responsibilities, research on dietary behaviour change support performed by CNs is needed.

Studies on dietary care by CNs focused on either malnutrition or undernutrition (Green et al., 2014; Håkonsen et al., 2019; Ziylan

et al., 2015). Accordingly, no insight in factors influencing dietary behaviour change support by CNs, focusing on a healthy diet in general is available. Besides, since dietary behaviour change support in CNs' professional practice should be enhanced, it is warranted to further investigate which factors influenced dietary behaviour change support among patients by Dutch CNs. Insights could be used to develop well-fitted training offers for CNs.

3 | THE STUDY

3.1 | Aim

The aim of the study was to explore which factors, influencing dietary behaviour change support among patients by Dutch CNs, are key focal points in training programmes.

3.2 | Design

Given the exploratory aims of the study, a qualitative descriptive methodology was adopted (Doyle et al., 2020; Sandelowski, 2010), using semi-structured, face-to-face interviews as data collection method. A qualitative descriptive methodology is suitable for research that aims to capture participants' experiences in cases when little is currently known about the phenomenon being explored. Findings from the data can be presented as a richly descriptive summary that fits the information captured closely. The semi-structured interview method allows a deep dive into the thoughts, beliefs and attitudes of interviewees about a particular topic (DeJonckheere & Vaughn, 2019). As Dutch CNs' dietary behaviour change support practices and determinants of these practices have not been previously explored, a qualitative descriptive methodology using semi-structured interviews for data collection was deemed suitable for this study (Doyle et al., 2020). Inductive thematic analysis provided a framework from which to draw themes from the participants' perceptions (Braun & Clarke, 2006).

3.3 | Participants

Convenience sampling was used. CNs within the professional network of our organization and alumni from the Department of Nursing were approached by email with an information letter. Individuals were eligible if they worked as a CN for at least 8 h per week, and if no colleague from the same team participated in the study. A total of 18 CNs participated in the study. All were women aged 21–60 years (mean age: 40 years) and had a bachelor degree in nursing. Twelve participants had been a CN for less than 10 years (range: 0–30 years), and 15 CNs worked 20–32 h per week. Participants were working across the Netherlands in small- and medium-sized cities for different home care organizations. Participants varied in training they had followed in relation to diet or behaviour change.

3.4 | Data collection

Semi-structured face-to-face interviews with CNs ($n = 18$) were conducted. Interview guide themes and topics included CNs' self-perceived (a) attitude (personal and professional view on a healthy diet and dietary care), (b) tasks and approach (perceived tasks and responsibilities, occasions to discuss diet and approach), (c) facilitators and barriers (facilitators and barriers for dietary behaviour change support) and (d) needs (topics for professional development regarding dietary behaviour change support) (Appendix S1). Interview guide themes were informed by the COM-B model (Michie, van Stralen, et al., 2011), using validated descriptions in Dutch (Fleuren et al., 2014). The COM-B model is a system designed to understand the Capability (i.e. knowledge and skill), Opportunity (i.e. social and environmental influence) and Motivation (i.e. confidence and identity) to engage in Behaviour through a behavioural diagnosis (Michie, van Stralen, et al., 2011). During the interviews, the focus was on CN-related factors, such as professional role and identity, knowledge and skills, as insights in CN-related factors can potentially be used in new training opportunities for CNs.

To practice interview skills and pre-test the interview themes and structure, one pilot interview with a CN was conducted before the start of the study. Content and comprehensibility of the interview guide appeared to be good. Therefore, no adaptations to the interview guide were made. Data from the pilot interview were not used to answer the research question. Interviews were conducted face-to-face, between November 2018 and February 2019, by three researchers (MvHC, YvdV and WK). Interviews were conducted in the Dutch language and took place in a private room. Interviews lasted approximately 1 h and were audio-recorded with participants' permission, where the name of the participant was not mentioned. The interviews were transcribed verbatim by an independent agency. Two transcripts were completely checked with the audio file by one author to ensure quality of the transcripts, which appeared to be good. Age, gender, educational background and job-related information were collected using a brief questionnaire at the start of the interview. These data were anonymized. Participant data, audio recordings and anonymized transcriptions of the interviews were stored on a protected server of the Christian University of Appied Sciences and were only accessible for the researchers. Anonymous and non-anonymous data were stored separately. Data saturation was expected to occur as it has been suggested that 12 interviews are sufficient for obtaining data saturation (Guest et al., 2006).

3.5 | Ethical considerations

We adhered to the ethical standards declared in the Declaration of Helsinki and the Dutch Code of Conduct for Scientific Integrity (Koninklijke Nederlandse Akademie van Wetenschappen (KNAW) et al., 2018). Participants were well informed and all signed informed consent before participating in the study. Participants had the freedom to refuse participation and could stop their participation at any

moment. Since CNs were not a specifically vulnerable group as they were mentally and legally competent and harmful consequences of participating in this research were not likely, study approval by an ethics committee was deemed unnecessary.

3.6 | Data analysis

Analyses were performed using qualitative analysis software ATLAS.ti version 9.0 (https://atlasti.com). Thematic analysis was used (Braun & Clarke, 2006). Data analysis started with immersion in the transcripts. Initial inductive coding was performed by MvHC, YvdV, WK, HA and GGvW. Two interviews were completely double-coded by two researchers independently and coding was compared, to ensure replicability. Transcripts were initially coded by GGvW and HA. Subsequently, GGvW and GdHJ continued coding to eventually obtain the current codes and themes. If a code appeared to be in line with a description of the BCT taxonomy, we rephrased the code to be equivalent to BCT Taxonomy v1 (Michie et al., 2013) after themes and codes were determined. GdHJ and GGvW discussed, refined and interpreted codes and themes face-to-face.

3.7 | Research rigour

The researchers had a background in nursing (MvHC and YvdV), health promotion and health education (YvdV, WK and HA), dietetics (WK) or nutrition and health (GdHJ and GGvW) and all were employed at the Department of Nursing; thus, the context of healthcare was familiar to all researchers. To enhance the dependability, the design, methods, analyses and results were all discussed in the research team. Before the start of the interviews, asking questions and using the interview guide were practiced, thoroughly discussed and reported to align interviewing practices. Moreover, researchers regularly discussed their experiences with the interviews in order to ensure their interviewing practices were similar. During interviews, field notes were made. During data analysis, a logbook was used to record and justify what decisions had been made. Agreement in coding was reached by consensus between GdHJ and GGvW. Participant characteristics were described and the findings are presented with appropriate quotations allowing readers to conclude on the degree of transferability. The COREQ guidelines were followed in reporting the methods (Tong et al., 2007).

4 | RESULTS

Three themes of CN-perceived factors influencing dietary behaviour change support among their patients were identified: (1) CN factors, (2) nurse–patient encounter and (3) cooperation and organizational context (Figure 1). The theme 'CN factors' consisted of three sub-themes: professional role and role clarity; knowledge; and competences.

4.1 | Nurse factor: Role identity

Many CNs were unsure about their role concerning dietary behaviour change support. 'It is always a grey zone, what is our task and what is the task of the one who does the groceries or the one who prepares the meal?' [CN6]. In line with this, patient expectations that diet and prevention were not part of CNs' role and responsibilities hampered dietary behaviour change support. Some CNs felt they should behave as their patients' role model in healthy eating, which was enabling. Moreover, CNs were more prone to pay attention to dietary behaviour change support when diet had a high priority for them, while often medical aspects had higher priority. 'Our focus is often on wound care or other issues than diet.' [CN2].

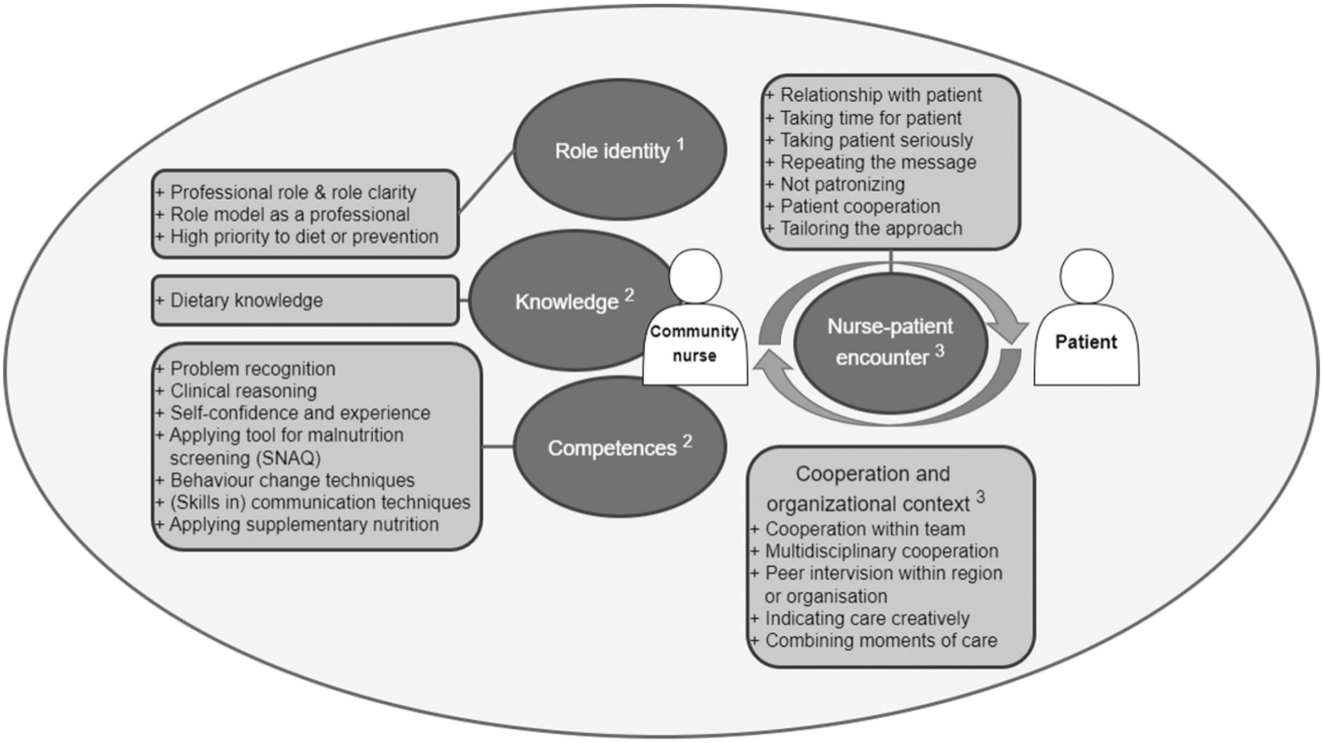
4.2 | Nurse factor: Knowledge

Several CNs experienced that having knowledge about diet was helpful when promoting a healthy diet. However, many CNs expressed a lack of knowledge about (un)healthy diet. 'I and my colleagues fall short in knowledge of disease-specific nutritional recommendations.' [CN4]. 'In my education [Bachelor of nursing] I really missed knowledge about nutrients.' [CN1]. 'What is an average energy need of elderly aged above 80 or 90 years?' [CN3]. A lack of knowledge impeded addressing diet in conversations with patients while having this knowledge was a facilitator. 'Because I have more knowledge about malnutrition compared to obesity, I find it easier to recommend patients to take some more snacks, to take a bit of custard or full-fat yoghurt.' [CN2]. Accordingly, many CNs expressed a need to increase their dietary knowledge in general and for specific groups, such as older adults or persons with specific health conditions or medicine use.

4.3 | Nurse factor: Competences

Recognition of problems with dietary behaviour, and clinical reasoning helped the CN in addressing diet in conversations with patients and improved patients' dietary behaviour. 'I recognise all kinds of problems, also related to diet.' [CN5]. Besides, CNs considered professional experience and self-confidence in their capabilities in dietary behaviour change support as beneficial. Related to problem recognition, a tool for malnutrition screening (SNAQ65+) (Wijnhoven et al., 2012) was considered helpful. Nevertheless, some CNs did not routinely applied this tool, because they found it difficult to apply.

CNs mentioned various techniques which they found helpful, which were, if possible coded to be equivalent to BCT Taxonomy v1 (Michie et al., 2013). Most BCTs mentioned were communication-related: providing information about behaviour-health link and providing information on consequences (Michie et al., 2013). 'I always explain to patients that protein is good for wound healing. For many patients it should be explained in easy words, because otherwise they do not understand what I mean and subsequently they will not change their behaviour in response to it.' [CN3]. When providing information,



[1] Role identity aligns with "Motivation" in the COM-B model

[2] Knowledge and Competences align with "Capacity" in the COM-B model

[3] Nurse-patient encounter and Cooperation and organizational context align with "Opportunity" in the COM-B model

FIGURE 1 Community nurse-perceived facilitators associated with dietary behaviour change support among patients, linked to the COM-B model.

CNs could use educational materials such as advance organizers and imagery (Bartholomew, 2016). Another helpful BCT was motivational interviewing (Michie, Ashford, et al., 2011). CNs experienced communication techniques, in general, to be effective, whereas a lack of skills in these techniques was hindering. Other BCTs mentioned to be helpful were setting graded tasks and social support (Michie et al., 2013). What CNs also found effective, was finding practical interventions to support dietary behaviour change, including self-reward, prompts/cues such as setting reminders for eating fruit, and action planning and afterwards review behaviour goals (Michie et al., 2013).

Many CNs would like to refresh or improve their communication skills or wished for additional training on behavioural models and theories and a methodical approach.

4.4 | Nurse–patient encounter

Having a relationship with a patient was seen as a prerequisite for addressing dietary behaviour. 'You are absolutely not going to have a look in the fridge on the first day, the patient needs to trust you before you can do that.' [CN6]. Related to this, taking time for the patient and taking the patient seriously facilitated dietary behaviour change support. When discussing diet, repeating the message and not patronizing were perceived helpful. 'Having a long breath and addressing dietary behaviour again and again without nagging.' [CN5]. Besides, asking for permission to discuss diet or to involve other health professionals such as the general practitioner was enabling, as well as patient cooperation. 'Sometimes patients initiate the conversation about diet as they say for example I did not weigh myself for a long time or I notice that my clothes are fitting looser.' [CN2]. Because a variety of physical, psychological, social and environmental patient factors play a role, tailoring the approach to the individual patient was recognized as crucial by almost all CNs. Besides these enablers, almost all CNs struggled with dealing with patient autonomy, and most CNs found it difficult to discuss diet. 'Patients know that an unhealthy diet is not good, but they do it anyway. I think it is people's own responsibility, and food is often something they really enjoy.' [CN11]. Some CNs expected to evoke patients' resistance when discussing diet, which would hinder dietary behaviour change. 'If patients become resistant, they will not follow my dietary advice.' [CN6]. CNs found it hindering if patients did not follow their dietary advice or were unwilling to involve a dietician.

4.5 | Cooperation and organizational context

Cooperation on different levels could affect dietary behaviour change support. Almost all CNs recognized that cooperation within

the CN team was important when supporting patients to change their diet. 'You should know that you are having a unanimous plan and that you all are doing the same.' [CN15]. Cooperation with a variety of disciplines could influence the support of healthy dietary behaviour. For example, CNs could consult the dietician, general practitioner or practice nurse involved in the care for a patient. Cooperation with dieticians and general practitioners was experienced valuable by most CNs, but troublesome by others. Some CNs were uncertain to which dietician to refer. Moreover, interprofessional communication with dieticians, general practitioners or other healthcare professionals could be troublesome. Helpful were patients' informal caregivers, who could support dietary behaviour change in cooperation with CNs, by for example preparing dinner.

Factors related to the organization of care both at organizational and policy level could either help or hinder CNs in supporting dietary behaviour change of patients. An observed barrier was a lack of priority to diet within the care organization, which may be expressed by a lack of dietary training. 'I think it is important for an organisation to offer training, to raise awareness among teams to underline that nutrition is considered important by the organisation.' [CN2]. For example, CNs desired additional training on the SNAQ. Besides, some CNs wished for protocols and guidelines addressing dietary assessment and following steps in dietary care. Moreover, some CNs would like to have an app for monitoring patients' dietary intake or Body Mass Index. A frequently addressed barrier related to legislation was financing issues, causing a lack of time to provide dietary care. 'We get about five minutes and a very small budget from which we cannot pay even our cheapest employee.' [CN1]. Therefore, CNs mentioned the need for creativity in indicating dietary care within the boundaries of national laws. Combining moments of care, for example assisting with meals directly before or after indicated care, was another helpful approach. Related to this, some CNs wanted to learn more about legislation regarding financing of dietary care.

Linking study findings to the COM-B model (Michie, van Stralen, et al., 2011), CNs' knowledge and competences represent Capacity, nurse–patient encounter and cooperation and organizational context signify Opportunity, and CNs' role identity implies Motivation. Thus, the COM-B model provides a useful framework to categorize study findings.

5 | DISCUSSION

Dietary behaviour change support implies the counselling of patients towards healthier dietary behaviour, being a diet according to the Dutch Dietary Guidelines (Gezondheidsraad, 2015). The main factors influencing this support by Dutch CNs were linked to (1) the CN (role identity, knowledge and competences), (2) nurse–patient encounter (building a relationship with a patient, supporting patient autonomy and tailoring the approach) and (3) cooperation and organizational context.

Perceiving dietary behaviour change support as their responsibility, clarity regarding their role in dietary behaviour change support, and giving high priority to diet were helpful. These factors can positively influence CNs' attitudes towards their role in dietary behaviour change support. Findings are supported by previous literature on malnutrition, indicating that confusion regarding dietary care responsibilities hindered dietary care provision by CNs (Håkonsen et al., 2019). Perceiving dietary care provision as their responsibility was enabling (Ziylan et al., 2015). This is in line with Dutch standards, in which CNs are assigned a prominent role in health promotion (Rosendal et al., 2019). CNs in the present study felt they should behave as patients' role model in healthy dietary behaviour. Nevertheless, in a Delphi study, policy and professional expectation that all nurses should be healthy role models was seen as unhelpful for nurses and unrealistic because of working conditions and pressure (Kelly et al., 2016). Role modelling healthy behaviours should be the nurse's individual choice, according to practicing nurses and nursing students (Kelly et al., 2016). However, it was seen as an advantage if a nurse had struggled with unhealthy behaviours, but eventually successfully changed his or her behaviour (Kelly et al., 2016).

Having dietary knowledge was seen as beneficial, while a lack of it hampered dietary behaviour change support, which is in line with previous study findings (Håkonsen et al., 2019). For example, CNs in the present study seemed to view wound care and diet as completely separate issues, although diet is very important for wound healing. Related to having dietary knowledge, having experience and self-confidence were helpful. Correspondingly, CNs expressed a need for training in dietary care guidelines and practices in the current study and other studies (Håkonsen et al., 2019; Ziylan et al., 2015). Tailored training is expected to improve attitudes, dietary knowledge, awareness of the importance of healthy dietary behaviour, self-efficacy and even professional behaviour (Koota et al., 2021).

Concerning competences, recognition of dietary behaviour-related problems enabled dietary behaviour change support. Other CN-perceived facilitating competences were clinical reasoning, communication skills and the use of BCTs. A previous report of part of our interview data points out that many CNs did not apply BCTs in a methodically grounded way (van Hell-Cromwijk et al., 2020). Some CNs who did not report to use BCTs might be unaware and incompetent to apply BCTs purposively. Studies also found that many CNs did not routinely perform dietary assessment for malnutrition screening (Håkonsen et al., 2018; Halfens et al., 2016). CNs who do not perform dietary assessment, being the first step in a methodical approach to dietary behaviour change support, presumably do not perform subsequent steps either, including assessment of behavioural determinants, behavioural goal setting and intervention planning. Previous research among CNs did not assess factors related to CNs' competences, which enabled or hindered dietary behaviour change support. Studies among practice nurses, however, found that having good communication skills enabled dietary behaviour change support (Cass et al., 2014; Groenendijk-van Woudenbergh et al., 2021), while a lack of communication skills, or specifically counselling and motivational interviewing skills, was hindering (Groenendijk-van Woudenbergh et al., 2021; Martin

et al., 2014). Thus, an opportunity lies in optimizing CNs' knowledge and use of a methodical approach to dietary behaviour change support and of BCTs, in which prevention should be the guiding principle (Rosendal et al., 2019).

BCTs experienced helpful by CNs in the present study were also mentioned by practice nurses in another study (Groenendijk-van Woudenbergh et al., 2021). These BCTs, labelled according to the BCT Taxonomy v1 (Michie et al., 2013), include providing information about behaviour-health link; using educational materials such as advance organizers and imagery; setting graded tasks; and social support. CNs in our study mostly reported BCTs targeting patients' knowledge about diet in relation to health and disease (providing information about behaviour-health link) and awareness and risk perception (providing information on consequences; Bartholomew, 2016). However, having knowledge and awareness is often not sufficient for behaviour change (Ajzen et al., 2011). Accordingly, BCTs targeting factors as attitude, skills, self-efficacy and social influence should be used as well, for example self-re-evaluation (targeting attitude), implementation intentions (targeting habits, automatic behaviour and action control), goal setting and planning coping responses (targeting skills, capability and self-efficacy), and information about others' approval and resistance to social change (targeting social influence; Bartholomew, 2016). Overall, training for CNs should address BCTs.

Regarding factors related to the nurse–patient encounter, tailoring the approach to the individual patient was perceived important. This is in line with findings of a study among practice nurses (Groenendijk-van Woudenbergh et al., 2021). Tailoring the approach is a mode of delivery rather than a BCT and can be defined as follows: 'any combination of information or change strategies intended to reach one specific person, based on characteristics that are unique to that person, related to the outcome of interest, and have been derived from an individual assessment' (Kreuter & Skinner, 2000). Tailoring the approach follows the global paradigm shift from professional-centred care towards patient-centred care (World Health Organization, 2020) and also corresponds to the concept of 'positive health' (Huber et al., 2011). A tailored approach could be more effective in supporting dietary behaviour change, as computer-tailored dietary education was more effective in changing dietary intake, compared to non-tailored dietary education, in a randomized controlled trial (Kroeze et al., 2008). Essential in patient-centred care and positive health are patient autonomy and self-management, which could be enhanced by a good professional-patient relationship (Entwistle et al., 2010; Rosendal et al., 2019). This is in line with the professional-patient relationship being the core of the Fundamentals of Care Framework (Kitson et al., 2013). Indeed, having a relationship was perceived enabling for dietary behaviour change support in the present study and other international literature (Hestevik et al., 2019). In the English behaviour change initiative 'Making Every Contact Count' (MECC) healthcare professionals discuss lifestyle factors with patients, aiming to promote health (Health Education England, 2023; NHS England, 2022). CNs might be trained in this.

CNs found it difficult to discuss sensitive topics such as diet, partly because patients have autonomy over their own lives and behaviour. Another reason for CNs' hesitation to address diet might be that CNs perceive their own role as a guest in the patient's home, rather than a professional, as shown by previous research (Håkonsen et al., 2019). Moreover, CNs were afraid of evoking resistance of patients when discussing diet, in line with findings of a previous study (Hestevik et al., 2019). Building a relationship of trust with a patient could reduce CNs' hesitation (Entwistle et al., 2010) and thus might provide opportunities to discuss sensitive topics such as diet. Having a relationship of trust corresponds to 'liking' as one of the principles of persuasion (Cialdini & Goldstein, 2002). Liking can be induced by similarity, such as the CN and the patient both having struggled with unhealthy behaviours. Moreover, related to role modelling, if the CN successfully changed his or her dietary behaviour, this functions as social validation to the patient that he or she might also succeed in changing dietary behaviour. Social validation is a principle of persuasion as well (Cialdini & Goldstein, 2002). Related to professional role, having successfully changed the behaviour also provides the CN with authority, being another principle of persuasion (Cialdini & Goldstein, 2002). However, when CNs use their authority as professionals to support patients to change their dietary behaviour, patient resistance might be evoked if they perceive the CN threatens their autonomy and self-management. Thus, 'authority' might not always fit within patient-centred care. Reciprocity is another principle of persuasion CNs might use in dietary behaviour change support (Cialdini & Goldstein, 2002). CNs need to be aware of the different roles they can take as they use different principles of persuasion and consider ethical implications of these roles and principles.

Finally, cooperation and organizational context were important obviously, as confirmed by previous studies (Green et al., 2014; Håkonsen et al., 2019; Hestevik et al., 2019; Ziylan et al., 2015) and corresponding to the context of care at a policy and system level in the Fundamentals of Care Framework (Kitson et al., 2013). Since different levels of organization of care play a role, different strategies are needed to address CN-perceived barriers and needs regarding dietary behaviour change support.

5.1 | Limitations

A strength of this paper is that it adds to international literature on dietary behaviour change support, as most previous studies focused on either malnutrition or lifestyle change support in general. Moreover, the present study concentrated on the home care setting, while existing literature mainly focuses on other settings. Many factors could be aligned with theories and models about behaviour change such as the COM-B model (Michie, van Stralen, et al., 2011).

As participation was voluntary, CNs with a particular interest in diet and health promotion might have enrolled in the study. CNs who are motivated to support dietary behaviour change may perceive more enabling factors and less hindering factors compared

with CNs who are not interested in diet. Nevertheless, since a variety of factors was covered, both positively and negatively affecting dietary behaviour change support, results represent an overview of factors influencing dietary behaviour change support, experienced by Dutch CNs. Moreover, as participants were recruited from the network of the organization and alumni of the Department of Nursing, representativeness might be limited, although nursing curricula at universities of applied sciences adhere to the same countrywide programme profile (LOOV, 2015). Further quantitative research such as a survey questionnaire among a larger CN population could provide insight in which factors are most prevalent, which can be further used to optimize training for CNs.

Because the study population consisted of CNs, transferability of findings to other healthcare professionals working among community-dwelling patients might be limited. However, studies among practice nurses suggest that they experience similar facilitators, barriers and needs for dietary behaviour change support as CNs in the present study (Cass et al., 2014; Groenendijk-van Woudenbergh et al., 2021; Martin et al., 2014). Nevertheless, CNs and practice nurses work in a different setting with different responsibilities and a different patient population. Besides, transferability of findings to CNs in countries other than the Netherlands might be limited because organization of care and also the specific roles and responsibilities of CNs differ across countries. Still, factors influencing dietary behaviour change support largely overlap with those perceived by CNs in the United Kingdom, Denmark and Norway (Green et al., 2014; Håkonsen et al., 2019; Hestevik et al., 2019).

Finally, this study focused on the perspective of CNs, as insights in CN-related factors can potentially be used in new training opportunities for CNs. Other perspectives, for example those of patients or other professionals, would broaden the understanding of dietary behaviour change support by CNs. Nevertheless, the scope of the present study was limited to CNs. Besides, this study did not consider the effectiveness of CNs' support on actual dietary behaviour change of patients. Research among patients could provide insight in the effectiveness of dietary behaviour change support. Moreover, further research could shed light on the most usable and effective BCTs in individual counselling to be applied in the time-restrained context of CNs.

6 | CONCLUSION

Study findings imply that CNs perceive many facilitators but also many barriers for dietary behaviour change support among patients. It shows that it is of utmost importance to pay attention to CNs' role identity regarding dietary behaviour change support, as this underlies professional behaviour. This should be accompanied by improving competences on dietary behaviour change support. Focus on competences regarding the application of BCTs is crucial. Furthermore, having a relationship of trust with a patient was important for discussing sensitive topics such as diet.

6.1 | Implications

In line with the global shift towards patient-centred care, CNs should use a patient-centred approach including a methodical assessment of dietary behaviour and its determinants, goal setting and intervention planning. The promotion of a healthy diet provides opportunities to contribute to patient autonomy and self-management. Well-fitted training offers for (senior) CNs could be developed using the insights of the present study. This will enhance professional practice of CNs, eventually leading to healthier dietary behaviour of patients.

AUTHOR CONTRIBUTIONS

Gerlinde Den Hamer-Jordaan, Geertruida J. Groenendijk-Van Woudenbergh, Marlies C. Van Hell-Cromwijk, Ytje J.J. Van Der Veen, Hylkje F. Algra and Willemieke Kroeze made substantial contributions to conception and design or acquisition of data, or analysis and interpretation of data. All authors were involved in drafting the manuscript or revising it critically for important intellectual content, and gave final approval of the version to be published.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

PEER REVIEW

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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