

General practitioners' communication on complementary and integrative medicine for cancer patients: Findings from an analysis of consultations with standardised patients

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Abstract

Objective: Our aim was to explore whether general practitioners (GPs) communicate with cancer patients on complementary and integrative medicine (CIM) in a patient-centred and case-specific manner.

Methods: We designed two cases of standardised breast cancer patients and allocated 29 GPs to hold a consultation either with Case 1 or Case 2. Case 1 presented with fears of possible physical side effects of hormone treatment. Case 2 feared a loss in social functioning because of nausea and emesis as possible side effects of chemotherapy. Consultations were audiotaped and analysed using the Roter Interaction Analysis System (RIAS). We analysed whether recommended CIM treatments and GPs' focus on psychosocial or medical and therapy-related content differed according to whether they were counselling Case 1 or Case 2.

Results: In consultations with Case 1, GPs rather focused on medical and therapy-related content and most often recommended mistletoe, diets and sports. In contrast, GPs focused on psychosocial content and they most often recommended methods of self-care when counselling Case 2.

Conclusion: The GPs in our sample reacted case-specifically to the patients' interest in CIM. Such responsive and patient-centred communication is a valuable resource but is often time-consuming. Adequate training and reimbursement should therefore be considered for GPs.

KEYWORDS

cancer, complementary medicine, counselling, general practitioners, integrative medicine, patient-centred care

1 | INTRODUCTION

According to an international meta-analysis of Horneber et al. (2012), 40% of cancer patients currently use some kind of

complementary and integrative medicine (CIM). A German survey also found that 50% of breast cancer patients and 44% of patients with gynaecologic tumours used some sort of CIM (Fasching et al., 2007).

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Cancer patients' reasons for using CIM can be separated into push and pull factors: While push factors encompass negative experiences with conventional methods that push them towards CIM, pull factors entail positive associations with CIM that pull patients towards CIM treatments (Lövgren et al., 2011). Push factors may encompass dissatisfaction with and side effects of conventional therapies as well as physical and mental constraints (Wanchai et al., 2010). Pull factors may encompass the expectation that the immune system and/or self-healing forces are supported, expectations that mental factors are incorporated into therapy and that the treating physician invests more time, as well as the wish to gain a feeling of control and self-efficacy (Tautz et al., 2012; Wanchai et al., 2010).

Studies on cancer patients' perceptions of CIM discussions with their physicians have shown that cancer patients often choose not to disclose their CIM use to physicians, either because they believe the disclosure of CIM use is unimportant, or they feel physicians are not interested, will react negatively, and are unable or unwilling to provide information (Adler & Fosket, 1999; Huebner et al., 2014; Tasaki et al., 2002).

As some CIM treatments may affect the safety and efficacy of conventional cancer treatment—for example, some phytotherapeutics may interact with chemotherapy (Ben-Arye et al., 2016; Posadzki et al., 2013)—most researchers agree that physicians should address CIM in cancer (Schofield et al., 2010). The German S3 guideline on breast cancer suggests that all patients should be asked if they use any complementary and/or alternative therapies (Deutsche Krebsgesellschaft, Deutsche Krebshilfe, AWMF [Leitlinienprogramm Onkologie], 2018).

Recommendations for such conversations on CIM, as summarised in a systematic review on CIM discussions in oncological settings, stress the importance of taking into account the patients' individual situation by asking open questions as well as trying to explore and understand their reasons and expectations for using CIM and responding to this individual motivation including fears, family situation, experiences with conventional and CIM treatment. This might help to identify the underlying reasons for using CIM and to find an appropriate solution. It seems important that physicians are balanced in their advice and respect patients' preferences so that the patient feels safe to disclose CIM usage—even if the treating physician holds a rather critical standpoint—and the physician can monitor this usage (Schofield et al., 2010).

Because of the long-lasting patient-physician-relationship, general practitioners (GPs) are persons of trust for patients and often contact persons for questions around CIM (Dahlhaus et al., 2015; Tautz et al., 2012). Even though GPs feel that their cancer patients are interested in CIM and that information on CIM is important in their daily routine (Klein & Guethlin, 2018), they express a lack of knowledge, and their confidence in discussing CIM with cancer patients is low (Dahlhaus et al., 2015; Klein & Guethlin, 2018; O'Beirne et al., 2004). As the field of CIM constantly changes, it is hardly ever possible to know all available treatments (Schofield et al., 2010). This situation—being asked about CIM by cancer patients without knowing the “right answer”—creates a feeling of responsibility combined with a feeling of

uncertainty and is seen as a major challenge by GPs (Dahlhaus et al., 2015; O'Beirne et al., 2004). Cancer patients on the other hand do not expect their GP to have extensive knowledge of CIM in cancer but wish that their GP shows an interest in their needs and is supportive and nonjudgmental (Tasaki et al., 2002; Verhoef et al., 1999). We, therefore, decided to take a closer look at the communication behaviour of GPs when it comes to respond to CIM issues.

German GPs are ambivalent in their attitudes towards complementary and alternative therapies, but only about 15% are clearly negative (Joos et al., 2011).

Even though the GP is an important contact person for CIM in cancer, little data exists on the actual course and content of consultations with cancer patients on CIM in general practice settings. We designed two cases of standardised breast cancer patients and analysed consultations using the Roter Interaction Analysis System (RIAS) (Roter & Larson, 2002) to explore whether GPs communicate with cancer patients on CIM in a patient-centred manner.

We investigated the CIM treatments they recommended, whether they focused on the medical or psychosocial content of discussions with the standardised patient, and whether their communication behaviour was case-specific; that is, they reacted to the patient (standardised patient case) presenting to them.

2 | METHODS

2.1 | Design

The presented data derives from a multicentre, randomised, controlled, exploratory trial for which GPs were trained in communication on CIM in cancer care. In this paper, however, we present preintervention data in order to assess as closely as possible the communication behaviour of GPs that have received no such training. We hypothesise that GPs that react case specifically to the presented cases (i.e., their communication content differs depending on the case) are already demonstrating responsive communication behaviour. Recruitment and data collection were simultaneously conducted at two sites in Germany.

2.2 | Recruitment and selection of general practitioners

Recruitment took place between February and September 2018. Our aim was to recruit 15 GPs per site (academic centre) or 30 GPs in total. GPs were informed about the study via the postal distribution of study flyers to randomly selected GPs in the respective regions, oral information sessions on training days for GPs of our institutions, newsletters addressed to GPs from our institutions as well as notifications in regional journals addressed to GPs. Interested GPs were contacted via phone, orally informed about the study and in case they agreed to participate, invited to hold their preintervention consultation with a standardised breast cancer patient at our institution.

Before the consultation, GPs were again orally informed about the study and handed a study information leaflet and a written consent form including information on data security. All study participants gave oral and written formal consent.

2.3 | Standardised cancer patient cases

Along with a team of GPs, psychologists, oncologists and a standardised patient trainer, we developed two cases of standardised cancer patients (SPC1, SPC2). The two cases represent female cancer

patients that differ in terms of age, past and planned therapy, reasons for wanting to consult the GP on CIM, and underlying concerns and fears (SPC1 is afraid that physical side-effects might result from the hormone treatment, and SPC2 is concerned that the side effects of her chemotherapy will include nausea and emesis and that this will make it difficult for her to function socially—for details, see Table 1).

For each case, we developed two versions: One for training the standardised patients and one to be handed over to GPs as a case report prior to consultation. The version for training the standardised patients included sociodemographic information on age, work and family situation, information on past and planned therapies, the

TABLE 1 Information on standardised cancer patient cases

	Standardised patient case 1: Fears of possible physical side-effects of hormone treatment	Standardised patient case 2: Fears of a loss in social functioning because of nausea and Emesis as possible side-effect of chemotherapy
Information handed over to general practitioners	Standardised patient case 1 (SPC1) is a 45-year-old breast cancer patient who underwent breast-preserving surgery. Due to results from histological diagnostics and tumour stage, the tumour board recommended a radiation therapy with subsequent hormone treatment. She finished radiation therapy and medical rehabilitation while hormone treatment has not been started yet. The patient had no prior diseases, which she ascribes to her healthy lifestyle. The patient is physically active by walking, yoga and fitness training, has a balanced diet with very little alcohol and is a non-smoker. She is married, has two children (13 and 15) and works part-time in a gardening shop. She takes Vitamin D on a regular basis.	Standardised patient case 2 (SPC2) is a 60-year-old breast cancer patient who underwent a mastectomy of the left breast and an axillary dissection. Her cancer was detected, because she consulted her GP for extreme tiredness and the GP advised her to see a gynaecologist immediately. Due to results from histological diagnostics and tumour stage, the tumour board recommended an adjuvant chemotherapy and radiation therapy with subsequent hormone treatment. These therapies have not yet started. Besides a dissection of the gall bladder, the patient has always been healthy. The patient works part-time in a kindergarten. The patient is highly occupied by her family life and therefore has no time for hobbies. She is married to a 65-year-old type 2 diabetic and has a 30-year-old daughter who is a single mom of two children. The patient supervises her husband's diet and therefore eats diabetes-friendly food most of the time; she consumes little alcohol and is a non-smoker. After work, she looks after her grandchildren and visits her mother in a nursing home. She takes omega-3-capsules on a regular basis.
Additional information for training of standardised patients	The cancer patient is well informed about her disease, regularly meets with a local self-help group and is in touch with other cancer patients via online groups. Self-determination and shared decision-making are important to her. She just finished medical rehabilitation and feels well. The patient has heard about climacteric disorders as a side effect of hormone therapy and fears to lose her present quality of life when starting hormone treatment. That's why she wants to talk to her GP whether the hormone therapy is "really necessary." She feels uncomfortable "eating hormones for years" and asks whether "there is any alternative." From a friend of her mother she has heard about mistletoe therapy and "that this should help prevent the cancer from coming back." The patient is unexperienced with CIM and generally trusts in conventional medicine. During the consultation, she repeatedly talks about concerns about climacteric disorders. She is not determined to quit hormone treatment, but wants advice from her GP.	The patient copes well with the mastectomy and feels generally well. She visits her GP to talk about her visit at the gynaecological clinic where the adjuvant chemotherapy was planned. The patient deeply fears the side effects of chemotherapy, which have been described to her as "hell on earth" by a neighbour. She is not concerned about hair loss, but fears nausea, emesis and a loss of functioning, which would imply that she is no longer able to care for her family the way she currently does. She feels highly responsible for her family members' daily routines and fears that "everything will collapse" without her help. The patient is a selfless, always active person. The possibility that she might need help herself challenges her self-perception. She asks the GP for an "accompanying treatment" to activate the "self-healing powers" of her body and to "diminish nausea." She has heard about vitamin preparations that might work for her. The patient is unexperienced with CIM and generally trusts in conventional medicine. During the consultation she repeatedly talks about her fear of nausea and emesis and first of all a loss of social functioning and "letting her family down." She wants to do "everything necessary to get well soon," but is insecure because of the therapy's influence on her family life.

manifest reason why the patient wants to talk to the GP on CIM as well as underlying concerns and fears, the patient's personality and instructions on how to present and behave. The version that was handed over to GPs as a case-report prior to the consultation contained sociodemographic information and information on past and planned therapies only. Standardised patients (SPs) were trained face-to-face or via telephone by an experienced standardised patient trainer. The allocation of cases was initially carried out randomly. However, we had to take into account that some of the GPs had only limited availability, and consequently made a few slight changes to the order.

2.4 | Data gathering

GPs were invited to a preintervention consultation with a standardised patient at both centres between May and September 2018. Prior to the consultation, GPs were asked to fill in a questionnaire on sociodemographic and occupational information as well as their attitude towards CIM in cancer patients. They were then handed over a one-page case report on the standardised cancer patient they were going to meet in a consultation on CIM. GPs were informed that they "have known the patient for several years" and that they have 20 min before they "need to see the next patient." GPs were then guided to a consultation room, in which the standardised cancer patient waited, and asked to enter whenever they felt prepared. Consultations were audiotaped.

2.5 | Data analysis

Questionnaire data were analysed descriptively using SPSS. Consultation data were analysed using the RIAS (Roter & Larson, 2002) in a version adapted specifically for our study, and metric variables were analysed using SPSS. As we used an exploratory study design, analysis was done descriptively.

2.5.1 | RIAS in general

The RIAS is a predefined coding system to analyse physician–patient dialogue that has been applied to numerous studies with different areas of interest in the United States and Europe (Roter & Larson, 2002). RIAS encompasses a coding manual and a software to apply these codes directly to audio files of consultations. The manual encompasses 35 codes for patient utterances and 40 codes for physician utterances. These codes encompass categories with a rather emotional content such as *reassurance*, *empathy* or *concern*, and categories with a rather topic-specific content such as *asking a question*, *giving information* or *counsel* that are available for *medical*, *therapeutic*, *lifestyle* and *psychosocial* contents. There are three basic rules for using the RIAS coding scheme: (1) Each utterance is only coded once; (2) each utterance must be coded; and (3) if an emotional code is

applicable, it is used in preference to a topic-specific code. RIAS-coded consultations are analysed in a quantitative manner; that is, the count of utterances per category is compared between consultations and groups.

The 40 categories can be summarised in composite scores such as *patient education and counselling* or *data gathering*, which we present in our results section. As we used SP cases, we present data on GP utterances only, with the exception of the RIAS patient-centredness score. For this calculation, both patient and physician utterances are necessary. In brief, patients' and GPs' utterances concerning psychosocial and lifestyle issues are considered in relation to those concerning medical and therapeutic issues. A score <1 indicates a conversation focused on biomedical issues, whereas a score >1 indicates an emphasis on patient-related content (Maatouk-Bürmann et al., 2016; Weiner et al., 2013).

2.5.2 | Study-specific adaptations of RIAS

We adapted the basic RIAS coding scheme for our study in three ways (Roter & Larson, 2002). First, we clarified which RIAS code should apply to which complementary and integrative medical treatment: Physical activity, sports and diet in the sense of "eating healthy" in a general way were coded as *lifestyle*, whereas vitamins and nutritional supplements were coded as *therapeutic*. Phytotherapy, homoeopathy, acupuncture and TCM were coded as *therapy*. Yoga, meditation, qi gong or other relaxation techniques were coded as *psychosocial*. Second, as our study setting did not include a physical examination, we assumed that a huge number of utterances would deal with psychosocial and lifestyle topics. To analyse conversations in detail, we split the existing code *psychosocial and lifestyle counselling* into *psychosocial counselling* and *lifestyle counselling*. Third, we added the following three study specific proficiencies: First, we documented every treatment from the CIM spectrum that GPs proposed to cancer patients, including advice on self-care, psychosocial support, diet and physical activity, but also specific CIM treatments such as homoeopathy, acupuncture and nutritional supplements. Every CIM treatment was noted, and the overall treatments mentioned in all consultations were categorised afterwards in a team of two researchers. Second, we documented when the GP conceded that he or she did not have enough knowledge to conclusively answer the question and third, we documented when the GP proposed to get more information.

To account for different lengths of GP-SP-consultations, we divided the count of utterances in each category by the count of the overall utterance per consultation.

3 | RESULTS

Overall, 29 GPs participated in consultations with standardised patients, with 18 GPs talking to an SP performing SPC1 and 11 GPs talking to a SP performing SPC2. Some 97% ($n = 28$) of participating GPs agreed that it is important for their daily work to be informed

about CIM in cancer, but only 21% ($n = 6$) felt confident when talking to cancer patients about CIM; 93% ($n = 26$) agreed that there is too little good information available on CIM. All GP characteristics can be found in Table 2.

3.1 | RIAS analysis

Consultation lengths of consultations with SPC1 ranged from 10 to 26 min with an average consultation length of 15 min. For SPC2, the average length was 14 min ranging from 9 to 20 min. On average, for SPC1, we coded 184 (range: 88–311) GP utterances per consultation and 170 (range:100–270) for SPC2.

3.1.1 | RIAS patient-centredness score

The mean RIAS patient-centredness score for conversations with SPC1 was 1.16 with a standard deviation of 0.51. The mean RIAS patient-centredness score for conversations with SPC2 was 2.23 with a standard deviation of 1.65.

3.1.2 | Content of consultations

GPs mainly contributed to consultations via *patient education and counselling*. While the general course and content of consultations were very similar in consultations with SPC1 and SPC2 (see composite scores in Figure 1), the topic-specific analysis of

the composite scores *patient education and counselling* as well as *data gathering* by contrast shows a different distribution of topics when comparing consultations with SPC1 and SPC2. Utterances with a psychosocial content appeared more often in conversations with SPC2, whereas in conversations with SPC1, more medical and therapy-related talk took place (see Figures 2a,b and 3a,b).

3.1.3 | Recommended CIM treatments

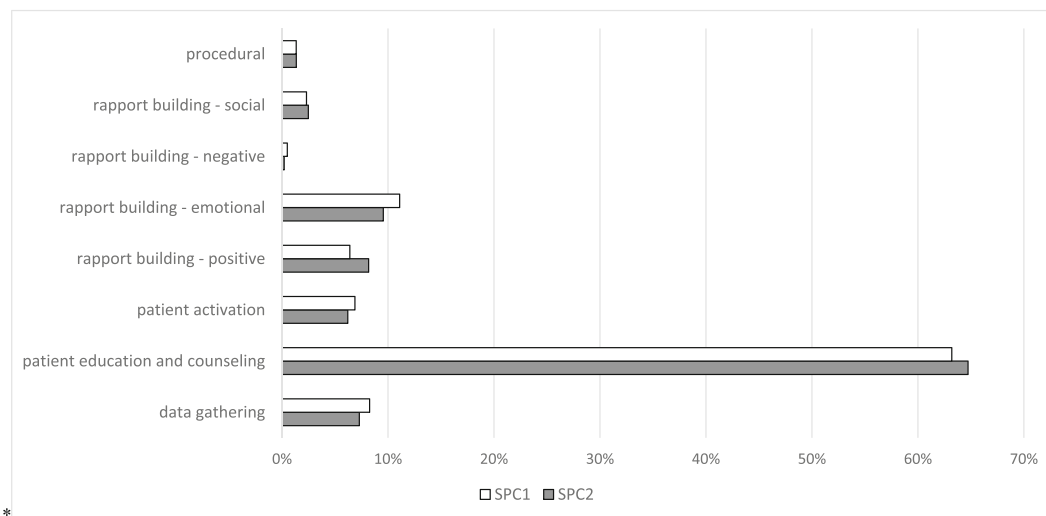
For SPC1, mistletoe therapy (which the SP proactively addressed) was most often recommended, followed by dieting, physical activity and sports, and vitamins and nutritional supplements. For SPC2, GPs most often recommended methods of self-care such as “take time to relax and time just for yourself” or “do things that you like,” followed by vitamins and nutritional supplements (which the SP proactively addressed), psychosocial support and physical activity as well as sports (see Figure 4).

3.1.4 | Disclosure of limited knowledge and offering to get more information

In consultations with SPC1, 44% of GPs ($n = 8$) admitted that they do not have enough knowledge to answer a question definitively, compared to 73% of GPs ($n = 8$) talking to SPC2. 28% of GPs ($n = 5$) counselling SPC1 offered to get more information for the patient compared to 45% of GPs ($n = 5$) counselling SPC2.

TABLE 2 GPs' characteristics

		SPC1 (N = 18)	SPC2 (N = 11)	Overall (N = 29)
Gender % (n)	Female	56% (n = 10)	82% (n = 9)	66% (n = 19)
	Male	44% (n = 8)	18,2% (n = 2)	35% (n = 10)
Work experience % (n)	0–10 years	22% (n = 4)	9% (n = 1)	17% (n = 5)
	11–20 years	17% (n = 3)	18% (n = 2)	17% (n = 5)
	21–30 years	39% (n = 7)	36% (n = 4)	38% (n = 11)
	More than 30 years	22% (n = 4)	36% (n = 4)	28% (n = 8)
Additional training % (n)	Acupuncture	28% (n = 5)	9% (n = 1)	21% (n = 6)
	Anthroposophical medicine	0% (n = 0)	0% (n = 0)	0% (n = 0)
	Homoeopathy	11% (n = 2)	0% (n = 0)	7% (n = 2)
	Chiropractic	0% (n = 0)	18% (n = 2)	7% (n = 2)
	Naturopathic treatment	17% (n = 3)	18% (n = 2)	17% (n = 5)
	Palliative medicine	17% (n = 3)	27% (n = 3)	21% (n = 6)
	Physiatrics and balneology	0% (n = 0)	0% (n = 0)	0% (n = 0)
	Specialised pain therapy	11% (n = 2)	0% (n = 0)	7% (n = 2)
Number of cancer patients currently cared for % (n)	None	6% (n = 1)	0% (n = 0)	3% (n = 1)
	1–15 patient(s)	44% (n = 8)	82% (n = 9)	59% (n = 17)
	More than 15 patients	50% (n = 9)	18% (n = 2)	38% (n = 11)



Note: When creating a pdf proof document, the text descriptions in figures 2 and 3 are distorted. This is not the case in the original file.

FIGURE 1 Distribution of composite scores of GPs' utterances as share of all GP utterances; sorted by standardised patient case (rapport is used to describe a feeling of mutual understanding and the ability to communicate with one another)

4 | DISCUSSION

To the best of our knowledge, our study is the first to assess GPs' actual behaviour during discussions of CIM with cancer patients with regard to GPs' patient-centredness. Patient-centredness was assumed to exist when GPs communicated case-specifically with their patients.

The mean RIAS patient-centredness score in conversations with SP2 was almost twice as high as the mean patient-centredness score in conversations with SP1. Nevertheless, GPs in both groups reacted case-specifically to the different presenting cases with regard to content. This was shown in the higher proportion of *psychosocial data gathering* and *psychosocial counselling* in SPC2, who wanted to use CIM because she feared a reduced ability to function for her family during chemotherapy treatment. GPs more often recommended methods of self-care and social support for SPC2. In consultations with SPC1, who feared physical side-effects (climacteric disorders) of hormone treatment, counselling focused to a greater extent on *therapeutic* and *biomedical* topics. GPs more often recommended mistletoe therapy, a healthy diet as well as physical activity and sports. Even though the patient-centredness score in conversations with SP2 was higher, we would argue that GPs in both groups communicated in a patient-centred manner and that a lack of case-specificity is a limitation of the RIAS patient-centredness score that equates psychosocial and lifestyle topics with patient-centredness. If patient-centredness is understood as case-specific and responsive behaviour, one cannot use the same composite score for each encounter. Instead, one should take into account the actual patient case (especially when using SPCs) and assess whether their themes (lifestyle, psychosocial, therapeutic or medical) are discussed or overlooked.

Furthermore, it has been noted that the RIAS composite score on patient-centredness is not sensitive to the outcome of care planning

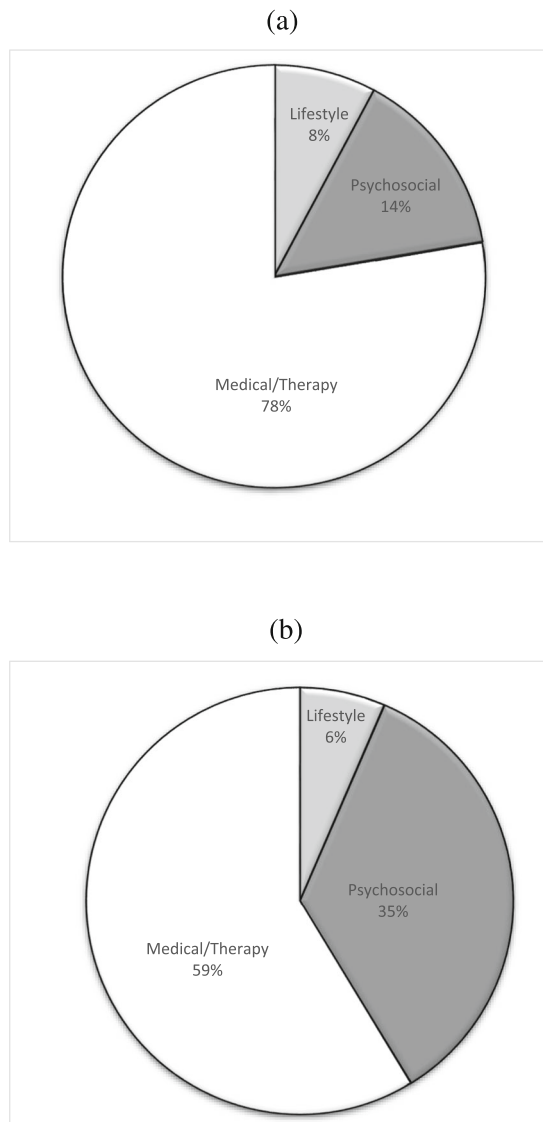
(Weiner et al., 2013). We also did not assess GPs' information giving on CIM in cancer in the sense of "right or false" information or a "better or worse" outcome of the consultation. Instead of monitoring GPs' objective knowledge on CIM, we focused on their responsiveness to presenting cases and patients' underlying reasons to use CIM (Schofield et al., 2010).

GPs recommended a lot of CIM treatments that cancer patients can easily apply themselves and which might support patients' feeling of self-efficacy such as diet, sports and physical activity, self-care and social support. These methods do not presume extensive knowledge about CIM in cancer. Furthermore, they are typically found in general practice settings where counselling on lifestyle interventions is common. There may be a big overlap between complementary medical procedures and "conventional" family medical care as many of the approaches of lifestyle and psychosocial interventions (e.g., movement, nutrition and relaxation elements) can be very well integrated in the concept of salutogenesis as described by medical sociologist Aaron Antonovsky (1987). This implies that patient-centred communication is not unique to CIM but is also called for when dealing with a multitude of other communication issues (e.g., transition to palliative care, trial inclusion and breaking bad news). The conclusion we draw from this is that the need to behave in a case-specific and patient-centred manner is inherent in the everyday care provided by GPs.

From surveying the attitudes of GPs to CIM in Germany, we know that about half are open to CIM procedures (Joos et al., 2011). Regardless of their attitudes, however, virtually all of them report a need for further information on the topic (Klein & Guethlin, 2018).

Beside these rather general recommendations, however, 78% of GPs talking to SPC1 also supported her wish to get more information and try mistletoe therapy. This may point to a general openness to

FIGURE 2 (a) Proportions of topic-specific utterances as share of all *patient education and counselling* GP utterances of SPC1. (b) Proportions of topic-specific utterances as share of all *patient education and counselling* GP utterances of SPC2



CIM treatments by GPs and/or to a respectful acceptance of patient treatment wishes as seen in shared decision-making (Elwyn et al., 2012; Légaré & Witteman, 2013).

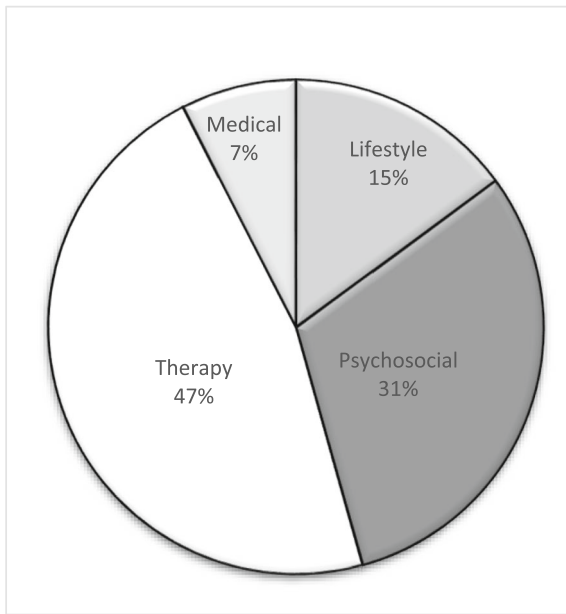
Nearly 60% of GPs disclosed that they do not have enough information to answer a specific question on CIM. This number is similar to findings from a former survey study among GPs in Germany (Klein & Guethlin, 2018). However, only 36% of GPs in our study offered to get more information on the topic in question. This is worth a second thought, as the disclosure of “not being an expert” may be used to block communication, especially when no offer for further information seeking is added. However, as no follow-up consultation was planned within the framework of the study, it remains unclear if this would have been the case. Nevertheless, a possible approach for GPs to counteract this uncertainty could be to participate in training sessions on communication skills with SPs, as a recent trial by Hvidt et al. (2018) on existential communication with cancer patients has shown. It could be assumed that GPs gain confidence in addressing specific

topics such as CIM with cancer patients by attending a specific communication training. Consequently, we would advocate training in patient-centred communication in all functions involving the provision of advice, be it end-of-life care, CIM, vaccination and so forth. We would also recommend that reimbursement schemes incentivise communication.

5 | STRENGTHS AND LIMITATIONS

One limitation of the study is that from the beginning, the provided information was clearly focused on CIM in cancer care. Therefore, both GPs and SPs were likely to accept CIM as the main theme of the conversation. We know from other studies that in real-world settings physicians often ignore or block cancer patients' initial attempts to address CIM in cancer and that patients may quickly give up when they are discouraged by their physician (Adler & Fosket, 1999;

(a)



(b)

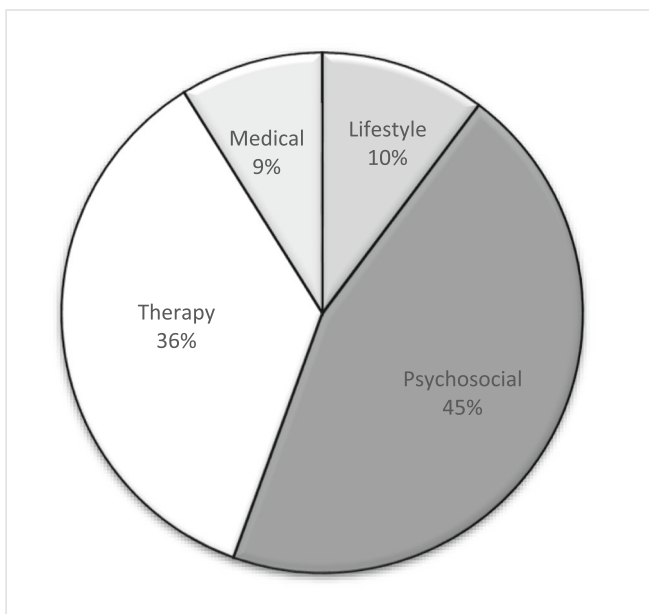


FIGURE 3 (a) Proportions of topic-specific utterances as share of all *data gathering* GP utterances of SPC1. (b) Proportions of topic-specific utterances as share of all *data gathering* GP utterances of SPC2

Schofield et al., 2010; Tasaki et al., 2002; Tautz et al., 2012). These instances were unlikely to happen in our study setting. Furthermore, the study setting provided up to 20 min of consultation time, which is rather the exception than the rule in a high-paced GP setting, where the duration of consultations is often only a few minutes (Irving et al., 2017). Thus, the external validity of our findings may be limited. It is interesting to note, however, that the GPs said that after completing the training, they found it easier to discuss CIM procedures with patients.

Our study set out to provide preliminary data on how GPs communicate with cancer patients on CIM and on whether this communication is patient-centred and thus differs depending on the presenting case. We acknowledge that in our study, we were responsible for addressing the topic of CIM, and that the course and content of conversations on CIM with standardised patients can only resemble conversations in real-world settings. However, evidence also exists that standardised patients can behave authentically (Ay-Bryson et al., 2020).

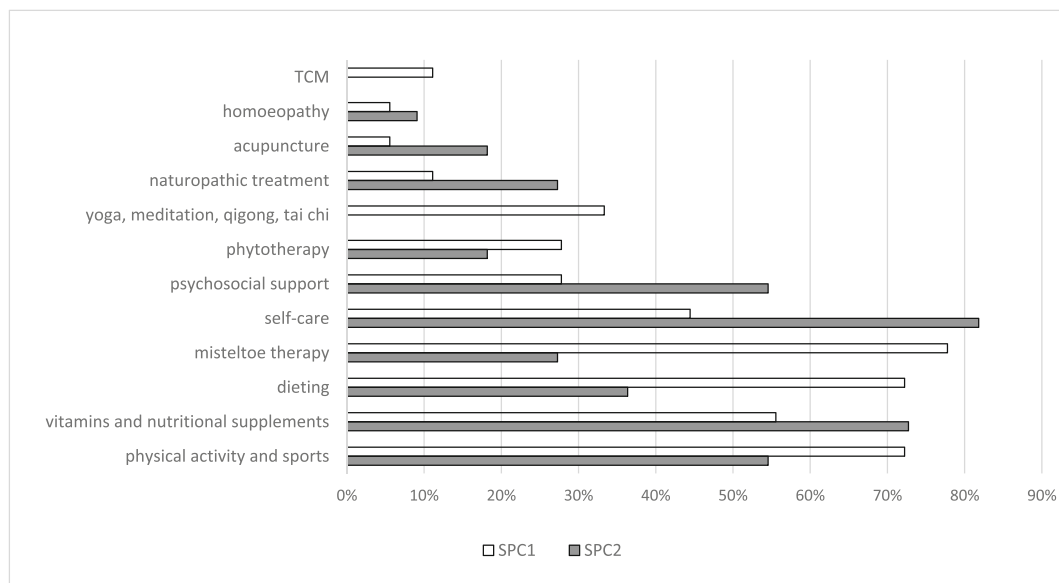


FIGURE 4 Percentage of consultations in which the respective method was recommended, sorted by standardised patient case

It has previously been demonstrated that RIAS captures different communication behaviours by reacting to psychosocial issues (Deveugele et al., 2004). As we consider case specificity to be an indication of the patient-centredness of GPs, we used RIAS to assess the case specificity of GPs' communication behaviour towards our simulated patients. We also trained SPs to mention their fears and concerns.

6 | CONCLUSION

The GPs in our sample reacted case specifically to the reasons and fears that the standardised patients gave to explain their interest in CIM. Such responsive and patient-centred communication behaviour is a valuable resource and one that might be used to encourage cancer patients to discuss CIM with their GPs. However, actively addressing CIM is often time consuming, and this is a barrier to its widespread integration into routine cancer care. Adequate training and reimbursement should therefore be considered for GPs that engage in it. Especially including communication on CIM into reimbursement schemes might advance patient-centred care.

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CONFLICTS OF INTEREST

No potential conflict of interest was reported by the authors.

DATA AVAILABILITY STATEMENT

Coding with RIAS is done on basis of original audio files. Therefore, no anonymised data are available, and for privacy and data security reasons, we cannot share any data.

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REFERENCES

- Adler, S. R., & Fosket, J. R. (1999). Disclosing complementary and alternative medicine use in the medical encounter: A qualitative study in women with breast cancer. *The Journal of Family Practice*, 48(6), 453–458.
- Antonovsky, A. (1987). *Unraveling the mystery of health: How people manage stress and stay well* (1st ed.). The Jossey-Bass Health Series. Jossey-Bass.
- Ay-Bryson, D. S., Weck, F., Heinze, P. E., Lang, T., & K uhne, F. (2020). Can psychotherapy trainees distinguish standardized patients from real patients? *Zeitschrift f ur Klinische Psychologie und Psychotherapie*, 49(3), 182–190. <https://doi.org/10.1026/1616-3443/a000594>
- Ben-Arye, E., Samuels, N., Goldstein, L. H., Mutafoglu, K., Omran, S., Schiff, E., Charalambous, H., Dweikat, T., Ghrayeb, I., Bar-Sela, G., Turker, I., Hassan, A., Hassan, E., Saad, B., Nimri, O., Kebudi, R., & Silbermann, M. (2016). Potential risks associated with traditional herbal medicine use in cancer care: A study of Middle Eastern oncology health care professionals. *Cancer*, 122(4), 598–610. <https://doi.org/10.1002/cncr.29796>
- Dahlhaus, A., Siebenhofer, A., & Guethlin, C. (2015). Complementary medicine for cancer patients in general practice: Qualitative interviews with German general practitioners. *Forschende Komplement rmedizin*, 22(1), 36–41. <https://doi.org/10.1159/000375182>

- Deutsche Krebsgesellschaft, Deutsche Krebshilfe, AWMF. (2018). S3-Leitlinie Früherkennung, Diagnose, Therapie und Nachsorge des Mammakarzinoms, Kurzversion 4.1: AWMF Registernummer: 032-045OL. Retrieved from <https://www.leitlinienprogramm-onkologie.de/leitlinien/mammakarzinom/>
- Deveugele, M., Derese, A., Bacquer, D. d., van den Brink-Muinen, A., Bensing, J., & Maeseneer, J. d. (2004). Is the communicative behavior of GPs during the consultation related to the diagnosis? A cross-sectional study in six European countries. *Patient Education and Counseling*, 54(3), 283–289. <https://doi.org/10.1016/j.pec.2004.02.004>
- Elwyn, G., Frosch, D., Thomson, R., Joseph-Williams, N., Lloyd, A., Kinnersley, P., Cording, E., Tomson, D., Dodd, C., Rollnick, S., Edwards, A., & Barry, M. (2012). Shared decision making: A model for clinical practice. *Journal of General Internal Medicine*, 27(10), 1361–1367. <https://doi.org/10.1007/s11606-012-2077-6>
- Fasching, P. A., Thiel, F., Nicolaisen-Murmann, K., Rauh, C., Engel, J., Lux, M. P., Beckmann, M. W., & Bani, M. R. (2007). Association of complementary methods with quality of life and life satisfaction in patients with gynecologic and breast malignancies. *Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer*, 15(11), 1277–1284. <https://doi.org/10.1007/s00520-007-0231-1>
- Horneber, M., Bueschel, G., Dennert, G., Less, D., Ritter, E., & Zwahlen, M. (2012). How many cancer patients use complementary and alternative medicine: A systematic review and metaanalysis. *Integrative Cancer Therapies*, 11(3), 187–203. <https://doi.org/10.1177/1534735411423920>
- Huebner, J., Prott, F. J., Micke, O., Muecke, R., Senf, B., Dennert, G., & Muenstedt, K. (2014). Online survey of cancer patients on complementary and alternative medicine. *Oncology Research and Treatment*, 37(6), 304–308. <https://doi.org/10.1159/000362616>
- Hvidt, E. A., Ammentorp, J., Søndergaard, J., Timmermann, C., Hansen, D. G., & Hvidt, N. C. (2018). Developing and evaluating a course programme to enhance existential communication with cancer patients in general practice. *Scandinavian Journal of Primary Health Care*, 36(2), 142–151. <https://doi.org/10.1080/02813432.2018.1459235>
- Irving, G., Neves, A. L., Dambha-Miller, H., Oishi, A., Tagashira, H., Verho, A., & Holden, J. (2017). International variations in primary care physician consultation time: A systematic review of 67 countries. *BMJ Open*, 7(10), e017902. <https://doi.org/10.1136/bmjopen-2017-017902>
- Joos, S., Musselmann, B., & Szecsenyi, J. (2011). Integration of complementary and alternative medicine into family practices in Germany: Results of a national survey. *Evidence-Based Complementary and Alternative Medicine: ECAM*, 2011, 495813. <https://doi.org/10.1093/ecam/nep019>
- Klein, G. E., & Guethlin, C. (2018). Information and training needs regarding complementary and alternative medicine: A cross-sectional study of cancer care providers in Germany. *Integrative Cancer Therapies*, 17(2), 380–387. <https://doi.org/10.1177/1534735416666372>
- Légaré, F., & Witteman, H. O. (2013). Shared decision making: Examining key elements and barriers to adoption into routine clinical practice. *Health Affairs (Project Hope)*, 32(2), 276–284. <https://doi.org/10.1377/hlthaff.2012.1078>
- Lövgren, M., Wilde-Larsson, B., Hök, J., Leveälähti, H., & Tishelman, C. (2011). Push or pull? Relationships between lung cancer patients' perceptions of quality of care and use of complementary and alternative medicine. *European Journal of Oncology Nursing: The Official Journal of European Oncology Nursing Society*, 15(4), 311–317. <https://doi.org/10.1016/j.ejon.2010.10.004>
- Maatouk-Bürmann, B., Ringel, N., Spang, J., Weiss, C., Möltner, A., Riemann, U., Langewitz, W., Schultz, J. H., & Jünger, J. (2016). Improving patient-centered communication: Results of a randomized controlled trial. *Patient Education and Counseling*, 99(1), 117–124. <https://doi.org/10.1016/j.pec.2015.08.012>
- O'Beirne, M., Verhoef, M., Paluck, E., & Herbert, C. (2004). Complementary therapy use by cancer patients physicians' perceptions, attitudes, and ideas. *Canadian Family Physician*, 50, 882–888.
- Posadzki, P., Watson, L. K., & Ernst, E. (2013). Adverse effects of herbal medicines: An overview of systematic reviews. *Clinical Medicine*, 13(1), 7–12. <https://doi.org/10.7861/clinmedicine.13-1-7>
- Roter, D., & Larson, S. (2002). The Roter Interaction Analysis System (RIAS): Utility and flexibility for analysis of medical interactions. *Patient Education and Counseling*, 46(4), 243–251. [https://doi.org/10.1016/S0738-3991\(02\)00012-5](https://doi.org/10.1016/S0738-3991(02)00012-5)
- Schofield, P., Diggins, J., Charleson, C., Marigliani, R., & Jefford, M. (2010). Effectively discussing complementary and alternative medicine in a conventional oncology setting: Communication recommendations for clinicians. *Patient Education and Counseling*, 79(2), 143–151. <https://doi.org/10.1016/j.pec.2009.07.038>
- Tasaki, K., Maskarinec, G., Shumay, D. M., Tatsumura, Y., & Kakai, H. (2002). Communication between physicians and cancer patients about complementary and alternative medicine: Exploring patients' perspectives. *Psycho-Oncology*, 11(3), 212–220. <https://doi.org/10.1002/pon.552>
- Tautz, E., Momm, F., Hasenburg, A., & Guethlin, C. (2012). Use of complementary and alternative medicine in breast cancer patients and their experiences: A cross-sectional study. *European Journal of Cancer (Oxford, England: 1990)*, 48(17), 3133–3139. <https://doi.org/10.1016/j.ejca.2012.04.021>
- Verhoef, M. J., White, M. A., & Doll, R. (1999). Cancer patients' expectations of the role of family physicians in communication about complementary therapies. *Cancer Prevention & Control: Prevention & Controle En Cancerologie: PCC*, 3(3), 181–187.
- Wanchai, A., Armer, J. M., & Stewart, B. R. (2010). Complementary and alternative medicine use among women with breast cancer: A systematic review. *Clinical Journal of Oncology Nursing*, 14(4), E45–E55. <https://doi.org/10.1188/10.CJON.E45-E55>
- Weiner, S. J., Schwartz, A., Cyrus, K., Binns-Calvey, A., Weaver, F. M., Sharma, G., & Yudkowsky, R. (2013). Unannounced standardized patient assessment of the Roter Interaction Analysis System: The challenge of measuring patient-centered communication. *Journal of General Internal Medicine*, 28(2), 254–260. <https://doi.org/10.1007/s11606-012-2221-3>

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