

Exploring primary care physician feedback following an integrative oncology consultation

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Abstract

Objective: To explore responses from primary care physicians(PCPs) from an integrative physician (IP) consultation and recommended integrative oncology (IO) treatment program.

Methods: Chemotherapy-treated patients were referred by their oncology healthcare professional to an IP, a physician dually-trained in complementary medicine and supportive cancer care. The consultation summary and patient-centered IO treatment program was then sent to the patient's PCP, with PCP-to-IP responses analyzed qualitatively using ATLAS.Ti software for systematic coding and content analysis. Trial Registration Number NCT01860365 published May 22, 2013.

Results: Of the 597 IP consultations conducted, 470 (78.7%) summaries were sent to patients' PCPs, with only 69 (14.7%) PCP-to-IP responses returned. PCPs were more likely to respond if the patient was Hebrew-speaking (78.3% vs. 65.1%, P=0.032). Systematic coding identified four predominant themes among PCP narratives: addressing the patient's medical condition and leading QoL-related concerns; patient-centered reflections; available resources providing support and promoting resilience; and PCP attitudes to the IO treatment program.

Conclusion: PCP-IP communication can provide valuable insight into the patient's bio-psycho-social care, addressing the patient's health-belief model, emotional concerns, caregiver-related factors, preferences and barriers to adherence to IO care.

Practice implications: Healthcare services should consider promoting IP-PCP communication in order to facilitate better patient outcomes from an IO treatment program.

1. Introduction

Communication between healthcare professionals through a "back-and-forth" correspondence is considered an important aspect of medical care, in both inpatient and outpatient settings[1]. A high degree of consensus exists among primary care physicians (PCPs) and consultants concerning the content provided in the referral of patients [2]. PCP-consultant communication may not only include clinical information about the patient, but may also delve into patient perspectives and preferences which can further enhance doctor-patient communication [3]. Research on the role of doctor-to-doctor communication has focused primarily on PCP-to-consultant referral letters [4]; PCP letters of response to consultants [5]; and consultant-initiated letters (e.g., discharge letters from hospital admission) [6–8]. While the widespread use of electronic health records has helped connect physicians with one another, PCPs and specialists still do not consistently communicate effectively about the patients whose care they share[9]. These gaps in communication can partly be explained by the characteristics of the country in which the healthcare is being provided; the family physician; and the primary care setting [11].

Complementary and integrative medicine (CIM) practices are increasingly being incorporated into cancer care. These integrative oncology (IO) services can be found in leading cancer centers worldwide, and they

present a number of challenges vis-à-vis patient-doctor-CIM practitioner communication. Patients also perceive physician-CIM practitioner communication as important and instrumental in promoting health, effective treatment and safety[12, 13]. Schiff et al compared the perspectives of 473 physicians and 781 CIM practitioners in Israel, and suggested a practical framework agreed upon by both for advancing a physician-CIM practitioner dialogue which is based on referral letters that include four elements: medical diagnosis; establishing treatment goals; addressing safety-related issues; and quality of care-related concerns[14]. In another Israeli study focusing on PCPs and CIM practitioners' perspectives regarding a clinical practice collaboration, the majority of participants in both groups preferred using a written medical letter to communicate with each other, with the goal of co-structuring a treatment plan for their patients [15]. In contrast to non-medical CIM practitioners, physicians trained in both conventional and complementary medicine were found to prefer a referral letter to advance doctor-CIM practitioner communication [16].

The present study explored the communication between integrative physicians (IPs), medical doctors with dual training in CIM and supportive/palliative care. The study setting is unique, in which an initial IP consultation is provided without charge to patients as part of the medical center's supportive and palliative care setting. PCP-to-IP responses to the IP consultation summary underwent qualitative analysis, identifying themes and information found to promote patient care and well-being.

2. Methods

2.1 Study design and setting

The study took place within an ongoing prospective, patient-preference, pragmatic study of patients undergoing chemotherapy for solid cancers who were referred by their oncology healthcare provider (HCP) to an IO consultation. The study took place at the IO Program at the Oncology Service of Clalit Healthcare Services, Lin and Zebulon Medical Centers, Haifa, Israel. The program has been providing IO therapies since 2008, as part of the Clalit supportive and palliative cancer care service. IO consultations are provided by a team of six integrative physicians, five of whom are family medicine specialists, all dually-trained in supportive cancer care and evidence-based complementary medicine IO practices. The present study examined correspondences between IPs and PCPs among a cohort of patients recruited into the program between November 2016 and July 2021.

2.2 Study population and IP consultation

Eligible patients were aged \geq 18 years and undergoing chemotherapy in a neo-adjuvant/adjuvant setting for localized cancer, or chemotherapy/palliative care for advanced cancer. Patients were referred to the IP consultation by one of their oncology healthcare providers, including oncologists, oncology nurses and psycho-oncologists working in the oncology center. Patient referrals to the consultation required at least one quality of life (QoL)-related indication. Throughout the approximately hour-long IP consultation a shared decision-making process is created by the IP and patient, leading to the co-designing of treatment goals and co-structuring of an integrative treatment plan addressing primarily QoL-related concerns.

The integrative treatment plan takes a number of aspects into consideration: the assessment patient expectations and health-belief model of care; prior experience with complementary medicine, and the willingness of the patient to experience unfamiliar modalities; identification of QoL-related concerns, wellbeing, and daily functioning; evidence-based data on the effectiveness and safety of relevant integrative treatments; and communication-related aspects related to the team of oncology healthcare providers. For this purpose, the IP and patient co-identify the immediate circle of healthcare providers, including the family physician (PCP), with the goal of facilitating effective communication and coordinating the IO treatment plan, depending on the patient's wishes. At the end of the consultation the IP prepares a summary letter which is then sent to each of the patient's healthcare providers describing the patient's concerns, integrative treatment goals, and proposed treatment plan. Healthcare providers were asked to advise feedback and practical suggestions following the summary letter with the goal to enhance the therapeutic process. All replies from oncology healthcare providers are recorded in the integrative oncology program registry, and addressed during subsequent visits to the IO service.

2.3 Study objectives

The main study objective was the identification of themes appearing in the narratives of PCP responses to the IP consultation summary. This with the goal of enhancing an understanding of the health beliefs, needs, challenges, and expectations of oncology patients regarding vis-à-vis the planned IO treatment regimen, addressing QoL-related concerns.

2.4 Data collection

The files of patients attending an IP consultation in the IO program during the study period were searched for PCP-to-IP correspondences, either via e-mail or hand-written and subsequently scanned to the patient's file. PCP narratives were then searched for themes relating to bio-psycho-social perspectives; QoL-related concerns; caregiver-related issues; doctor-patient communication; patient adherence to the conventional oncology treatment; and the patient's health-belief model.

2.5 Data analysis

Statistical analysis was conducted using the IBM SPSS Statistics 26.0 program (IBM, New York, NY), with means with standard deviation (SD) or medians and inter-quartile range (IQR) for continuous variables; numbers, and proportions for categorical variables. Demographical and clinical characteristics of both groups (with vs. without a PCP-to-IP response) were analyzed using a Chi-square test (for categorical variables) and an independent t-test/Mann-Whitney for continuous variables, with statistical significance tested at P < 0.05.

Qualitative analysis of PCP-to-IP narratives was performed using two research approaches. The first was performed by an expert in qualitative research (YK), using ATLAS.ti Scientific Software (V.8), enabling systematic coding. Qualitative content analysis was performed using a conventional content analysis approach, precluding the need for pre-established categories for coding[17, 18]. In parallel, an independent researcher, a family physician with no IO training, read the PCP responses line-by-line, with

the goal of identifying repeating themes. Codes were then assigned to the narratives based on the themes identified, with codes representing core concepts discussed in each section. All quotes related to the codes were then sorted into categories and grouped into meaningful clusters with emerging themes.

2.6 Ethical Considerations

The study protocol was approved (0024-09-CMC) by the Ethics Review Board (Helsinki Committee) of the Carmel Medical Center in Haifa, Israel. The study was registered at ClinicalTrials.gov (NCT01860365). Participants signed an informed consent form before entering the study.

3. Results

3.1 Characteristics of Study Groups

A total of 597 IP consultations were conducted during the study period, from which 470 (78.7%) summaries were sent to the patient's PCP, of whom only 69 (14.7%) responded. Both patients for whom a PCP-to-IP response was provided and those without a response had similar characteristics with respect to mean age, gender, place of residence, and oncology-related parameters (Table 1). Patients for whom Hebrew was their primary language were more likely to have their PCP respond to the IP summary than those speaking other languages (78% vs. 65.1%, P = 0.032).

3.2 PCP narratives and themes

Qualitative analysis of narratives derived from PCP-to-IP responses included reflections on the health-related beliefs and how their patients were coping with the disease and oncology treatments (33 responses); as well as information about their patient's medical condition, addressing their leading physical and emotional-related concerns (23 responses). In 36 of the 69 responses, PCPs specifically addressed the IO treatment program, including the patient's preferences and QoL-related concerns.

Content analysis of the PCP-to-IP responses identified the following main themes: the PCP's approach to CIM (35, 50.7%); caregiver-related (34, 49.3%) and emotional/psychological aspects of the patient's care (21, 30.4%); the patient's health-belief model (21, 30.4%); doctor-patient communication-related aspects of care (13, 18.8%); recommendation for complementary medicine modalities that may better 'fit' the patient; and issues related to the patient's adherence to the conventional oncology treatment (13, 18.8%).

Systematic coding identified four predominant themes: the patient's medical condition and leading QoL-related concerns; patient-centered reflections; available resources providing support and promoting resilience; and PCP attitudes to the integrative medicine treatment program.

3.2.1 Theme 1: Patient's medical condition and leading QoL-related concerns

In their response to the IP summary, a number of PCPs addressed the patient's past and current medical conditions, including chronic diseases, medications and laboratory test results, some of which were unknown to the IP or oncology healthcare professional. Many narratives focused on QoL-related concerns, emphasizing both physical and emotional distress, with an emphasis on symptoms such as pain, constipation, nausea and fatigue, as well as functional disability. Patient concerns were frequently perceived within a multi-faceted complex, with an overlap between physical, emotional, and spiritual domains.

A burning sensation in the hands and feet...neuropathy, muscle spasms, primarily of the legs...prevent him from sleeping... causing discomfort, depression...

Patient distress was often addressed with a broader spectrum of challenges facing the ability of the patient's family to cope. "A lot of the anxiety is related to her worry about her 9-year-old son...". This included the PCP sharing their experience with how the patient's family dealt in the past and present with crises.

I think that treating the emotional state of both the mother and the other children will be very helpful...the main issue here is her concern for the home environment...

3.2.2 Theme 2: patient-centered reflections

Many of the PCP narratives described the patient's journey using a patient-centered approach ("who the patient is... beyond their cancer and symptoms.."), while reflecting on their biographical milestones and coping abilities, such as optimism ("an optimistic personality...one that is positive, exhibiting strengths which can help deal with her illness"); an ability to continue with activities of daily living, despite functional limitations; and an ability to be actively involved in the treatment process.

She takes her fate into her hands, and doesn't complain...doesn't regret...and, most importantly, doesn't blame others...

PCP narratives also addressed unrealistic expectations from oncology treatments; denial of the severity of their illness; and the difficulty of patients and informal caregivers to articulate their anxiety, most importantly on the subject of death and dying. In contrast, a number of PCPs described a more distant relationship with their patients, often from the time the cancer is diagnosed, as the responsibility regarding treatment shifted more to oncologists and surgeons.

3.2.3 Theme 3: Available resources providing support and promoting resilience

Many PCP narratives addressed available resources providing support and promoting resilience, primarily caregivers and family members, which help them cope and increase resilience.

"The one bearing most of the burden is the husband, H, who has been treating her with utter devotion and has taken upon himself the management of her medical treatment".

Words and phrases describing the patient's resilience included "resources", "support", "providing all she needs and asks for", and "devotion" ("through fire and water"). Other resources mentioned in the narratives included open communication with the patient's spouse and family members; encouragement toward physical independence, included regarding activities of daily living; and active participation of the PCP in the patient's oncology care.

"I feel that I am best able to provide support by being available whenever she needs me. She has my cellphone number, and can contact me with whatever question she has during her treatments".

3.2.4 Theme 4: Attitudes to the integrative medicine treatment program

Many of the PCP narratives expressed an appreciation of the ability of the IO program to help their patients, as well as for the invitation to participate in the process. Some recognized that the IO program helped improve QoL-related concerns, either for specific symptoms (e.g., chemotherapy-induced peripheral neuropathy-related) or for the general wellbeing of the patient.

"They are more relaxed, less depressed than before...he seems to be more aware of his situation...looks a lot better...".

Some responses encouraged patients to participate in the IO program and undergo IO treatments. Many narratives expressed an opinion that the program was in keeping with the patient's health-belief model, taking the patient's preferences into account, especially for those who "avoid conventional drugs" or are strongly affiliated with 'natural medicine'. In one narrative, the PCP described how he encouraged his patient to consult with an integrative practitioner working in the oncology department, with the goal of preventing an 'alternative' approach which recommended stopping entailed cessation of the conventional oncology treatment altogether.

"The patient and her family are devoutly religious, and have a strong belief system which helps them cope with the illness... 'All is from God'...She has a very strong support system from her family, especially her husband. The husband has one relative who has told her to stop all conventional oncology treatments. I spoke with the husband, and explained the importance of the integrative approach to treatment. I suggested that he make an appointment with you, and am very happy that he did...".

Some PCPs expressed an interest in keeping an open channel of communication with the IP, with regular updates and clinical guidance; and shared decision-making regarding current and potential clinical challenges in the future, including end-of-life issues:

I need your guidance. I'd be very happy to have a meeting of minds about the patient, and update you on additional details.

4. Discussion and Conclusion

4.1 Discussion

The current study explored an important aspect of the communication between IPs working in an IO program, as part of a supportive and palliative care setting; and the PCPs responsible for the ongoing care of patients participating in the program. Despite the fact that IP consultation summaries were sent to the majority of the patients' PCPs (78.7%), only a small percentage of responses were returned by PCPs to the IPs (14.7%). Four predominant themes were identified in PCP narratives: the patient's medical condition and leading QoL-related concerns; patient-centered reflections; available resources providing support and promoting resilience; and PCP attitudes to the integrative medicine treatment program.

While the stated goal of the study was to identify patient-centered themes in PCP-to-IP responses, as they related to the patient's health-beliefs, needs, challenges, and expectations, the ultimate goal of the correspondence is the fostering of an inter-relationship between the triad of healthcare providers committed to the patient's wellbeing: the oncology healthcare provider (oncologist, nurse oncologist, psycho-oncologist), who referred the patient to the IP consultation; the IP who, following the consultation, forwarded a summary to the patient's PCP with a request for feedback and input on the IO program; and finally, the patient's PCP, who corresponds back to the IP. The present study examined one of the bi-directional axis of communication, that taking place between the PCP and the IP. To the best of our knowledge, this is the first such venture in the IO setting.

The present study employed two qualitative research methodologies, identifying the four themes mentioned. Additional themes included insights into the patient's health-belief model; doctor-patient communication; recommendations regarding additional IO modalities which may better 'fit' the patient's needs; and issues related to patient adherence to the conventional oncology treatment regimen. These additional themes may correspond with the primary outcome themes, enriching the understanding of patients' health-beliefs, needs, challenges, and expectations as they relate to their QoL. These insights may also enrich the therapeutic context, emphasizing the role of the PCP in providing important patient-centered information that would have been very difficult to obtain otherwise. This may be especially meaningful following the call in a recently published guideline paper by Mao et al. on behalf of the Society for Integrative Oncology, to address the global challenges of cancer treatment by adopting an IO patient-centered model of care [37]. The present study suggests that PCP-to-IP letters may promote a holistic bio-psycho-social-spiritual patient-centered approach, through collaboration between family medicine, IO, oncology and palliative care.

Over the past two decades, studies on IO-related communication have focused on the interaction between patients and their oncology healthcare providers, most often addressing gaps in patient disclosure of their use of complementary medicine, and the need for a shared decision-making process [19–21]. These studies have been followed by the creation of clinical practice guidelines, recommendations, and training programs geared toward improving patient-HCP communication in the IO setting [22–25]. Little research has been conducted addressing other communication-related aspects of the IO setting, such as that between the oncology healthcare provider and IO practitioner, within the context of traditional medicine [26]; IP-patient communication in the IO setting[27], including where the IP is also a PCP[28]; and communication between the IO practitioner and oncology physician [29], nurse [30], psycho-oncologist

[31], and pharmacist [32]. In the primary care setting, the PCP may also play a role as one of the patient's oncology healthcare providers, in both a medical as well as supportive and palliative care capacity. As such, it is essential that an open and effective process of ongoing communication be created between the IP and the patient's PCP.

In light of the above, the low rates of PCP response to the IP summary and request for feedback and input found in the current study need to be addressed. A similarly low level of consultant-PCP communication has previously been reported by Timmins et al, who found low rates of PCP response to summary letters sent by specialist physicians to whom they have referred their patients [9]. Other researchers, while examining PCP-specialist interactions, have focused on the lack of communication, rarely addressing its content[33]. A systematic review of 26 studies examining the content of communication between PCPs and specialist consultants found that while PCPs valued the inclusion of educational components with detailed follow-up plans, specialists placed a higher value on detailing case histories, as opposed to patient bio-psycho-social perspectives [34].

It is important to examine why PCPs only rarely respond to the specialists to whom they send their patients, this in order to better understand the low rates of PCP-to-IP response rates found in the present study. This finding may reflect a bias caused by a lack of motivation of the PCP to reply to the IP consultation summary. Rates of PCP-to-IP responses were significantly higher among Hebrew-speaking patients when compared with other languages, primarily Arabic and Russian (P = 0.032). While other characteristics were not found to be predictive of a PCP-to-IP reply, it is possible that variables other than those studied may be involved. For example, the study did not examine demographic characteristics of the PCPs, or their attitudes toward CIM in general and the IO consultation and treatment program in particular. Low rates of PCP-to-IP responses may also reflect the heavy work load with limited time available, making it difficult for the PCP to prepare a response. At the same time, the present study did find that the patient's primary language may have influenced the PCP's motivation to respond to the IP. This hypothesis needs to be carefully explored in future research, which should include examining previous studies of the IO setting in northern Israel. These studies have found that oncology patients from minority groups, particularly Arab-speaking patients, are less likely to be referred by their oncology healthcare providers to an IP consultation and IO treatment program [35, 36].

The present study has a number of limitations which need to be addressed in future research. First and foremost, the study format was non-randomized and was conducted within the framework of a pragmatic research design. Still, patient demographic and cancer-related characteristics were, for the most part, similar in the two study groups (with vs. without a PCP-to-IP response). Another limitation is the low rate of PCP-to-IP responses, which may reflect an unexplored bias, such as PCP attitudes to CIM and IO care; level of interest in responding to consultation letters in general; acquaintance and rapport with the patients; prioritization in an overwhelming workload; and other aspects of the primary medical care setting. Future studies will need to explore these and other enablers and barriers to IP-to-PCP and PCP-IP communication. The fact that PCPs whose patients were Hebrew-speakers were more likely to respond may reflect a possible social-cultural bias, which needs to be addressed as well. The fact that the

study took place in a single location in northern Israel limits the generizability of the study, which may not reflect other settings in Israel or in other countries, with different socio-cultural health-belief models of care. The study examined oncology patients undergoing chemotherapy for solid cancers, and the results may be different for other patient populations.

In addition to the above limitations, the study used a qualitative approach which may be subject to researcher bias and interpretation, in contrast to a quantitative approach which could have provided more generalizable results. The study also did not address patient perspectives of the communication between the PCP and the IP, which could have provided additional and important information. Nevertheless, the study was part of a prospective, patient-preference, and pragmatic study design, which enables the researcher to examine a more real-life clinical IO setting of care. In addition, the use of a unique dual-qualitative approach in the analysis of the PCP-IP interaction provides a rich spectrum for the identification of predominant themes. Further research is needed in order to better understand the study's findings, and should be expanded to include the perspectives of additional "players" in the PCP-IP interactions, including patients and their informal caregivers; and oncology healthcare providers, including their own communication pursuant to the provision as well as the return feedback from the IP to the oncology providers.

4.2 Conclusion

The present study explored the communication between PCPs and IPs regarding a patient-centered and co-designed IO treatment program. Responses from PCPs to the IP consultation summary, though infrequent, provided insight into the patient's bio-psycho-social context of care, highlighting their health-belief model, emotional concerns, caregiver-related issues, treatment preferences, and barriers to adherence to the IO treatment program. Further research is needed to better understand the implications of these findings in the supportive and palliative cancer care setting.

4.3 Practical implications

Oncology supportive and palliative care services should consider a structured IP-to-PCP and PCP-to-IP correspondence following an IP consultation, embedded in patient medical files and openly available to the patient's oncologist, nurse oncologist, and psycho-oncologist. PCP-to-IP response narratives should be considered as a healthcare provider-reported outcome measure, and documented in the patient's medical file for qualitative input enriching patient-centered care.

Declarations

Ethics Accordance The study protocol was approved (0024-09-CMC) by the Ethics Review Board (Helsinki Committee) of the Carmel Medical Center in Haifa, Israel. The study was registered at ClinicalTrials.gov (NCT01860365) published May 22, 2013. Participants signed an informed consent form before entering the study.

Competing Interest Nothing to declare

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Tables

Table 1: Characteristics of patients following an IP consultation, with or without a PCP response to the IP summary

Characteristic	PCP responded	PCP did not respond	P values
	N=69	n=401	
<u>Age</u>	60.1±12.5	61.6±12.3	P=0.364
mean ± SD			
Gender/Sex	54 (78.3)	315 (78.6)	P=0.914
Female			
Primary Language	54 (78.3)	261 (65.1)	P=0.032
Hebrew vs. all other languages			
Country of Birth	48 (69.6)	245 (62.7)	P=0.271
Israeli born			
Residence	19 (27.5)	128 (31.9)	P=0.468
Haifa vs. suburbs & periphery			
Prior complementary medicine use			
Non-cancer related	46 (66.7)	262 (66.3)	P=0.96
Cancer-related	31 (44.9)	220 (55.3)	P=0.25
Primary Cancer site:			
Breast code	29 (42.6)	167 (43.2)	P=0.94
GYN-cancers codes	10 (14.7)	68 (17.6)	P=0.56
Gastro-intestinal codes	14 (20.6)	86 (22.2)	P=0.76
Lung codes	11 (16.2)	42 (10.9)	P=0.21
Prostate code	0 (0)	11 (2.8)	P=0.16
Urinary codes	1 (1.5)	5 (1.3)	P=0.90
Other	3 (4.4)	8 (2.1)	P=0.25
Cancer recurrence			
Yes	13 (18.8)	104 (26.1)	P=0.20
Cancer metastasis			
Yes	24 (35.8)	169 (43.8)	P=0.22
Oncology treatment setting			
Adjuvant	17 (28.3)	102 (27.3)	P=0.80
Neoadjuvant	19 (31.7)	100 (26.7)	

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Palliative 24 (40.0) 171 (45.7)

IP, integrative physician

PCP, primary care physician