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ORIGINAL REPORT

Barriers Against Psychosocial Communication: Oncologists' Perceptions

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ABSTRACT

Purpose
To explore oncologists' psychosocial attitudes and beliefs and their perceptions regarding barriers against psychosocial communication.

Methods
A questionnaire was distributed to oncologists in Sweden (n = 537). Questions covered demography, the Physician Psychosocial Beliefs Scale (PPBS), and barriers against psychosocial communication. Stepwise multiple regression was used to determine what factors contribute the most to the PPBS score and the total number of barriers and barriers affecting clinical practice, respectively. Spearman rank-order correlation was used to determine correlation between PPBS score and number of barriers.

Results
Questionnaire response rate was 64%. Mean PPBS value was 85.5 (range, 49 to 123; SD, 13.0). Most oncologists (93%) perceived one or more barriers in communicating psychosocial aspects with patients. On average, five different communication barriers were perceived, of which most were perceived to affect clinical practice. These barriers included insufficient consultation time, lack of resources for taking care of problems discovered, and lack of methods to evaluate patients' psychosocial health in clinical practice. There was a positive correlation ($r_s = 0.490$; $P < .001$) between the PPBS score and the number of perceived barriers (ie, less psychosocially oriented oncologists perceived more barriers). Oncologists with supplementary education with a psychosocial focus perceived fewer barriers/barriers affecting clinical practice ($P < .001$ and $P = .001$, respectively) and were more psychosocially oriented ($P = .001$).

Conclusion
Oncologists perceive many different barriers affecting psychosocial communication in clinical practice. Interventions aiming to improve psychosocial communication must therefore be multifaceted and individualized to clinics and individual oncologists. It is important to minimize barriers to facilitate optimal care and treatment of patients with cancer.

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INTRODUCTION

Patients with cancer frequently experience physical, social, and emotional problems and depression. Anxiety and emotional distress affect approximately 30% to 45% of these patients.[1-4] Patients differ in how much they want to discuss psychosocial issues and preferences may change during disease trajectory. However, most patients want to discuss and receive psychosocial support from attending physicians.[5,6] The oncologists' role in providing psychosocial care involves adequately recognizing and diagnosing the problems, providing support, adjusting treatments or treatment plans, prescribing first-line psychotropic medications, and facilitating referrals.[7]

Despite numerous studies demonstrating the importance of psychosocial care and communication, psychosocial issues are seldom discussed in cancer care.[6,8-11] The explanation might be barriers at both organizational and individual levels.[12] Potential barriers include predisposing factors (eg, knowledge and values) that influence physicians to behave in a specific way, including beliefs about the physician's role and the patients' needs/wishes.[13] Some oncologists experience ambiguity in evaluating depression and anxiety and dealing with uncertainties and denial.[14] Others fear upsetting the patient[13,15] or forcing an emotional bond with them.[16] Others protect themselves from emotional distress by limiting close contact with patients.[15,16] Enabling factors such as sufficient time and resources can facilitate or, if absent, inhibit psychosocial discussions.[17] This might result in misclassification of psychopathologic symptoms and

inadequate referrals to psycho-oncology services.[7,18] Finally, reinforcing factors, including feedback and rewards/negative consequences or the lack thereof, can contribute to why psychosocial topics are seldom discussed.[17] Patients with cancer are at risk for being underdiagnosed regarding psychological, psychosocial, or psychiatric problems and being inadequately informed about psychosocial aspects. Untreated psychosocial morbidity can result in physical and emotional suffering, increased hospital stays, and suboptimal treatment outcomes.[19-21] Knowledge of oncologists' views about barriers against psychosocial communication is limited, and studies suggest it needs further exploration.[17,22]

No study has explored oncologists' perceptions of psychosocial communication during consultations, in combination with exploring their perceptions of barriers against communication. This knowledge could help explain poor implementation results regarding psychosocial care interventions in clinical practice. It could also inform modifications of existing interventions and develop new interventions in health care to optimize opportunities for high-quality psychosocial communication. The prevalence of perceived barriers is interesting from the perspective of oncologist total burden, since handling all barriers require effort and energy from the oncologists. In contrast, the barriers affecting clinical practice might be the ones that directly affect communication negatively and therefore should be prioritized.

The aims of this study are to explore oncologists' psychosocial attitudes and beliefs, their perceptions regarding barriers against psychosocial communication during outpatient consultations, and to evaluate possible correlations between psychosocial orientation and perceived barriers.

METHODS

Study Design

The study was a quantitative, nonexperimental study among all of Sweden's clinical (radiation and medical) oncologists.

Questionnaire

Data were collected via a self-reported postal questionnaire including questions on clinicians' age, sex, hospital size, amount of patient contact, subspecialty, and whether they had had any psychosocially focused supplementary education.

The questionnaire also included the Physicians Psychosocial Beliefs Scale (PPBS), measuring physicians' psychosocial orientation[23] or physicians' beliefs about psychosocial aspects of patient care. It includes 32 items based on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The summary score ranges from 32 (maximum psychosocial orientation) to 160 (minimum psychosocial orientation). Lower scores reflect positive attitudes toward integrating psychosocial issues, whereas higher scores reflect the belief that psychosocial issues are not part of the physician's role.[23] The Jenkins and Fallowfield[24] version of PPBS was translated from English into Swedish, using forward and backward translations in collaboration with an accredited translator.

The questionnaire also included 11 questions regarding the prevalence of barriers against psychosocial communication and their perceived impact on clinical practice. The barriers were identified in previous research,[17] whereas items used were developed by the authors (Appendix Table A1, online-only). If the oncologists reported a barrier they were asked whether and to what extent this barrier affected clinical practice.

The questionnaire was pilot-tested for clarity, relevance, content, and coverage. Think-aloud methodology[25] was used in a small group (n = 8) of oncologists, representing different oncologist subspecialties, ages, sex, and hospital sizes. Sample size was determined by the principle of saturation.[26] The oncologists were interviewed individually and asked to read all questions aloud, explaining their reasoning while answering the items. After questionnaire completion, oncologists were asked how they perceived the questions and whether they regarded any question as difficult or sensitive or whether some questions should be excluded or others included. Time to fill out the questionnaire and preferred mode of administration were estimated. An item matrix was established, noting responses and potential modifications. Interviews continued until no more item modifications were needed. No items from the PPBS were excluded.

Data Collection

The questionnaire was mailed to all oncologists in Sweden registered in the national health care personnel database. The questionnaires were given identification numbers, enabling reminders (maximum, 3) to be sent to nonrespondents only. All answers were treated with confidentiality.

Data Analysis

All data were entered into SPSS version 20 (SPSS, Chicago, IL) and checked for potential errors by double-checking the answers in the questionnaires against the data compiled in SPSS. For analysis of perceived barriers, the response options of "totally agree" and "agree to some extent" were merged and interpreted as agreement to perceiving barriers. Nonresponses to barrier questions were coded as not perceiving the barrier. Only if the respondent perceived a barrier was he/she asked about that barrier's impact on clinical practice. Descriptive statistics were used and univariate analyses of the independent variables were performed. Cronbach's α was used to check internal consistency of PPBS items. A stepwise regression analysis was performed to determine which factors contributed the most to the PPBS, number of barriers, and the number of barriers affecting clinical practice. Factors presenting $P < .1$ in the univariate analyses were included in the stepwise model. Further, based on the Akaike Information Criterion (AIC)[27] an additional judgment was made whether to include/exclude variables. The AIC approach is used to select the optimal model, which is set to have the lowest AIC score. For categorical factors in the final model, posthoc tests were performed to explore differences between factor levels or groups. To determine the effect sizes, adjusted R^2 for the total model and partial Eta squared (η^2) for the individual factors were used.

Spearman rank-order correlation was used to determine the relationships between PPBS scores, the number of perceived barriers, and the number of perceived barriers affecting clinical practice. $P \leq .05$ was considered statistically significant in all analyses. Mean scores, range, 95% CIs, P values, and effect sizes are listed in the tables.

RESULTS

A total of 548 questionnaires were mailed to all clinically active oncologists in Sweden. Five could not be delivered as addressed and six physicians who were not clinical oncologists were excluded.

The response rate was 64% (344 of 537 oncologists). Oncologist characteristics are listed in Table 1. There were no differences between respondents and nonrespondents regarding distribution by sex. Representativeness in other aspects could not be assessed. The majority of respondents (78%) worked in university or regional hospitals with different kinds of cancer diagnoses. The most common subspecialties were breast, gastrointestinal, and pediatric cancers.

Twenty-five percent of respondents reported having supplementary education with psychosocial focus; of those, 43% had completed this education more than 10 years ago. Among the respondents, 59% found psychosocial communication to be very important, 40% regarded this as fairly important, and 1% as not particularly important.

Oncologists' Psychosocial Orientation

The PPBS revealed excellent internal consistency, with a Cronbach's α of .86. The PPBS scores ranged from 49 to 123 (mean, 85.5;

Table 1. Background Characteristics of Respondent Oncologists

Characteristic	No. of Oncologists	%
Age, years		
≤ 35	41	12
36-45	101	29
45-55	90	26
56-65	86	25
≥ 66	16	5
Missing	10	3
Sex		
Female	185	54
Male	159	46
Primary country where medical education was completed		
Sweden	284	83
Other country	55	16
Missing	5	1.5
Professional seniority		
Resident physicians	47	14
≤ 10 years	118	37
≥ 11 years	155	48
Missing	24	7
Subspecialty (n = 1-3)		
Nonspecific, working with several different cancer diagnoses (≥ 4)	104	
Breast cancer	50	
Pediatric cancers	37	
GI cancer	43	
Gynecologic cancer	22	
Head and neck cancer	26	
Lung cancer	21	
Malignant lymphoma, other hematologic malignancies	26	
Palliative care, hospice, home health care team, or comparable	16	
Urologic tumors, bladder cancer, and cancer of the urinary tract	36	
Other subspecialties*	36	
Missing	9	
Place of work		
University/regional hospital	264	77
Other hospitals	54	16
Other (hospice, home health care team, or comparable)	21	6
Missing	5	1
Amount of patient contact		
Every day	262	76
Once or more per week	65	19
Less than once a week	12	4
Missing	5	1.5
Supplementary education with psychosocial focus		
Yes	85	25
No	250	73
Missing	9	3

*Oncogenetics, skin cancer including malignant melanoma, brain tumors and cancer in the nervous system, cancer rehabilitation, endocrine tumors, testicular cancer, thyroid cancer, and stem-cell transplantation.

standard deviation [SD], 13.0). Oncologists considering discussions of psychosocial issues as fairly important had higher PPBS scores than those who regarded them as very important ($P < .001$), which further supports the validity of the PPBS.

The psychosocial attitudes and beliefs among oncologists were rather homogeneous (Table 2). Stepwise regression analysis yielded that older physicians were more psychosocially oriented than younger ($P < .001$), and those oncologists with supplementary psychosocial education were more psychosocially oriented than those without ($P < .001$). Oncologists working at hospice or with palliative home care teams were more psychosocially oriented than those working at university hospitals ($P < .001$) and other hospitals ($P = .004$). Oncologists who were educated in another country were less psychosocially oriented ($P = .010$).

Variables included in the stepwise analysis yielded an adjusted $R^2 = 0.188$. Of these, perception of the importance of communicating psychosocial issues with patients and supplementary education with psychosocial focus affected the PPBS the most (Table 2).

Perceived Types of Barriers

Virtually all oncologists (93%) perceived at least one barrier and most (79%) perceived that one or several barriers have some or a great impact on their clinical practice. The oncologists perceived an average of five different barriers and an average of 3.5 barriers affecting clinical practice. There were some differences between the most commonly perceived barriers and the ones affecting clinical practice (Table 3).

The three most frequently perceived barriers were insufficient consultation time, lack of feedback concerning the practice of their profession concerning patients psychosocial health, and lack of support from the clinic's leaders (eg, guidelines) regarding how to handle issues concerning patients' psychosocial health. The three most common barriers perceived as affecting clinical practice were insufficient consultation time, lack of resources to handle the potential problems discovered, and lack of good methods in clinical practice to evaluate patients' psychosocial health.

Furthermore, 33% of respondents perceived they had insufficient knowledge about how to communicate regarding psychosocial issues with their patients, and 25% perceived this to affect their clinical practice.

Correlations of Perceived Barriers and Oncologist Characteristics

Among oncologists working with different adult diagnoses, the mean numbers of perceived barriers were rather consistent (Table 4). Stepwise regressions analysis yielded that oncologists with supplementary psychosocial education perceived fewer barriers and barriers affecting clinical practice ($P < .001$ and $P = .001$, respectively). Female oncologists perceived more barriers and barriers affecting clinical practice than male oncologists ($P = .010$ and $P = .015$, respectively). Oncologists who worked with palliative care perceived fewer barriers than those who worked with many different diagnoses ($P < .001$), malignant lymphoma ($P = .037$), and breast cancer ($P = .018$). Oncologists working with pediatric cancer also perceived fewer barriers than those working with two or more adult diagnoses ($P = .021$). Oncologists who had received most of their medical training in a country other than Sweden perceived more barriers affecting clinical practice ($P = .042$). Oncologists who worked with palliative home care teams perceived fewer barriers and barriers affecting clinical practice than oncologists working at smaller hospitals ($P = .003$ and $P = .023$, respectively) and fewer barriers than those working in university hospitals ($P = .036$). Oncologists perceiving that it is fairly important to communicate psychosocial issues with patients perceived more barriers than did those who perceived it is very important ($P = .043$).

Table 2. Differences in PPBS Scores

Characteristic	No. of Oncologists	PPBS Scores				*P* (univariate analyses)	*P* (stepwise ANOVA)	Partial η^2
		Mean	SD	Min/Max	95% CI			
Age, years						< .001	< .001	0.010
≤ 45	133	88.2	11.1	58/117	86.3 to 90.1			
≥ 46	171	82.7	13.6	49/119	80.6 to 84.7			
Sex						.976	*	
Female	157	85.0	12.7	49/115	83.0 to 87.0			
Male	126	84.9	13.2	49/119	82.6 to 87.2			
Subspecialty						.019	†	—
Nonspecific, working with two or more diagnoses	153	86.5	13.1	49/119	84.4 to 88.5			
Breast cancer	25	83.5	13.0	58/100	78.1 to 88.8			
Pediatric cancers	24	82.0	10.4	63/99	77.6 to 86.4			
GI cancer	17	87.8	10.8	70/106	82.2 to 93.3			
Malignant lymphoma	11	87.1	7.7	69/95	82.0 to 92.4			
Palliative care	15	73.5	13.9	49/94	65.8 to 81.2			
Urologic cancer	11	84.2	12.1	49/94	76.0 to 92.3			
Gynecologic cancer	18	84.4	13.2	57/99	77.9 to 91.0			
Other subspecialties‡	5	78.4	15.7	61/94	59.0 to 98.0			
Professional seniority						.092	.091	0.017
Resident physician	45	85.0	11.4	60/106	81.6 to 88.5			
0-10 years	111	87.3	12.8	49/123	84.9 to 89.7			
≥ 11 years	136	83.7	13.6	51/119	81.4 to 86.0			
Primary country where medical education was completed						.027	.01	0.013
Sweden	239	84.2	12.5	49/119	82.6 to 85.8			
Other country	44	88.8	14.3	49/115	84.4 to 93.1			
Place of work						.001	< .001	0.023
University/regional hospital	214	85.9	12.3	49/119	84.2 to 87.6			
Other hospital	49	85.1	12.1	51/115	81.6 to 88.6			
Other (hospice, home health care team, or comparable)	20	74.2	15.9	49/100	66.8 to 81.7			
Supplementary education with psychosocial focus						< .001	< .001	0.039
Yes	69	79.5	14.5	49/119	76.0 to 83.0			
No	214	86.7	11.8	49/115	85.1 to 88.3			
Perception of importance of communicating psychosocial issues with patients						< .001	< .001	0.085
Not important	0	—		—	—			
Not especially important	4	97.3	14.4	86/117	74.3 to 120.2			
Fairly important	121	90.3	10.2	67/119	88.3 to 92.2			
Very important	184	81.6	13.4	49/115	79.6 to 83.6			
Amount of patient contact (on average)						.130	*	—
Every day	216	85.6	13.1	49/119	83.8 to 87.3			
One or more times a week	56	84.0	11.5	53/101	80.9 to 87.1			
Less than once per week	11	77.7	13.1	58/98	68.9 to 86.6			

NOTE. For PPBS, lower scores were associated with higher psychosocial orientation. PPBS was used as a dependent variable in the stepwise regression.
Abbreviations: AIC, Akaike Information Criterion; ANOVA, analysis of variance; min/max, minimum/maximum; PPBS, Physician Psychosocial Beliefs Scale; SD, standard deviation.
*The factor was excluded as it presented $P > .1$ in the univariate analysis.
†The factor was excluded by the AIC.
‡Other subspecialties included oncogenetics, skin cancer including malignant melanoma, brain tumors and cancers of the nervous system, cancer rehabilitation, endocrine tumors, testicular cancer, thyroid cancer, stem-cell transplantation, lung cancer, and head and neck cancer.

Additional results on differences between groups can be found in Table 4 and Appendix Table A2, in which the percentages per group perceiving barriers and barriers affecting clinical practice are listed.

The variables included in the stepwise analyses of number of perceived barriers yielded an adjusted $R^2 = 0.14$. Of these, subspecialty and supplementary education affected the number of perceived barriers the most (Table 4).

Variables included in the stepwise analyses of number of perceived barriers affecting clinical practice yielded an adjusted $R^2 = 0.06$. Of these, supplementary education and workplace affected the number of perceived barriers affecting clinical practice the most (Table 4).

Correlation Between the PPBS and Number of Perceived Barriers

There was a positive correlation between PPBS scores and number of perceived barriers ($r_s = 0.490$; $P < .001$) and between PPBS scores and number of barriers affecting clinical practice ($r_s = 0.421$; $P < .001$).

Table 3. Oncologists' Perceived Barriers When Discussing Issues of Psychosocial Character With Patients (N = 344)

Barrier	Oncologists Perceiving a Barrier (to a high degree or to some extent)			Oncologists Perceiving a Barrier Affecting Their Clinical Practice (to a high degree or to some extent)			
	No. of Oncologists	%	Ranking	No. of Oncologists	Percent in Relation to Those Who Perceived a Problem	Percent in Relation to Total	Ranking
The consultation time is insufficient to discuss psychosocial issues with patients	259	76	1	219	85	64	1
Feedback is lacking on how I practice my profession, regarding patients' psychosocial health	238	69	2	109	46	32	7
There is a lack of support from the clinic's leaders (eg, guidelines and memos) regarding how to handle issues concerning patients' psychosocial health	198	58	3	118	60	34	5
There is a lack of resources for taking care of the potential psychosocial problems I discover	179	53	4	141	79	41	2
There is a lack of good methods in clinical practice for evaluating patients' psychosocial health	178	52	5	126	71	37	3
There is a lack of routines on how to address psychosocial issues with patients	159	46	6	118	74	34	4
It is unclear whose responsibility it is to handle patients' psychosocial health	154	45	7	116	75	34	6
There is a lack of routines for how to act if I discover psychosocial problems	130	38	8	102	78	30	8
I have insufficient knowledge about how to communicate on psychosocial issues with patients	113	33	9	87	77	25	9
There is a lack of support from physician colleagues regarding how to handle issues concerning patients' psychosocial health	77	23	10	47	61	14	10
It is not the physician's task to ask patients about their psychosocial health	16	5	11	11	69	3	11

DISCUSSION

The large number of oncologists perceiving barriers in communicating about patients' psychosocial issues might explain why studies keep finding gaps between the recommended psychosocial and supportive care and actual practice and also why patients continue to report unmet needs and desires for strengthened psychological support.[28-30] Our results indicate that to improve patient-physician psychosocial communication multifaceted measures are needed, targeted at the predisposing, enabling, and reinforcing factors.[17]

Predisposing factors in terms of values of psychosocial communication indicate that many oncologists acknowledge the importance of psychosocial problems and perceive them to be their responsibility, while giving priority to discussing other topics.[15,31] Barriers connected to enabling factors were commonly perceived, including having insufficient consultation time. Other studies confirm that oncologists often perceive lack of time as a main barrier against psychosocial communication.[17,31] Efforts including reduced time-consuming administrative elements, more consultation time, providing oncologists with education in effective communication and implementing e-Health approaches might be helpful. An additional 40 seconds of the clinicians' time spent on acknowledging psychosocial issues associated with cancer can reduce patient anxiety[32] and may shorten the consultation time.[33] Reinforcing factors also seem to be lacking, as 69% of the oncologists perceived that they lacked feedback on their communication performance. This could be improved by introducing performance indicators evaluating the quality of psychosocial care[34] and/or with supplementary education that included constructive feedback,[35] such as using the Medical Interaction Process System.[36,37] Detailed feedback as part of communication skills training is appreciated by oncologists and effectively improves communication.[24,38-40]

Many interventions have been tested for improving patient-physician communication in oncology care, including communication training programs.[35,39,41,42] Our results show that those who had supplementary education with a psychosocial focus were more psychosocially oriented and perceived fewer barriers. However, it is not possible to conclude the cause and effect; those participating in such programs might be more psychosocially oriented from the start. Nonetheless, communication training affects psychosocial orientation,[24] increases physician confidence in handling difficult situations,[39,43] and improves supportive skills.[39] Further, the effect of such education may be long-lasting,[38] and offering such education could be a cost-effective way to improve communication. These correlations need be researched further since our results showed that oncologists who were less psychosocially oriented perceived more barriers. The results show that one third of the oncologists perceived that they had insufficient knowledge about how to communicate on psychosocial issues with patients, which confirms findings from other studies

Table 4. Perceived Barriers Against Communication of Psychosocial Issues

Characteristic	No. of Oncologists	No. of Perceived Barriers: Mean	SD	Min/Max	95% CI	P (univariate analysis)	P (stepwise regression)	Partial η^2	No. of Perceived Barriers Affecting Clinical Practice: Mean	SD	Min/Max	95% CI	P (univariate analysis)	P (stepwise regression)	Partial η^2
Age, years						.001	†	—					.097	*	—
≤ 45	142	5.6	2.6	0/10	5.2 to 6.1				3.8	2.8	0/10	3.4 to 4.3			
≥ 46	192	4.4	3.0	0/11	4.0 to 4.9				3.2	3.0	0/11	2.8 to 3.6			
Sex						.031	.010	0.023					.090	.015	0.018
Female	164	5.3	3.0	0/10	4.8 to 5.8				3.8	3.1	0/10	3.3 to 4.2			
Male	141	4.5	2.7	0/11	4.1 to 5.0				3.1	2.7	0/11	2.7 to 3.6			
Subspecialty						< .001	.007	0.066					.019	†	—
Nonspecific, working with two or more diagnoses	159	5.6	2.8	0/11	5.1 to 6.0				3.9	3.0	0/11	3.4 to 4.4			
Breast cancer	25	5.2	2.9	1/10	4.0 to 6.4				4.0	3.2	0/10	2.7 to 5.4			
Pediatric cancers	26	3.9	2.8	0/9	2.7 to 5.0				2.9	2.6	0/7	1.9 to 3.9			
GI cancer	22	4.0	2.2	1/9	3.0 to 5.0				2.4	2.3	0/8	1.4 to 3.5			
Malignant lymphoma	16	5.1	2.6	2/9	3.7 to 6.5				3.3	2.9	0/9	1.7 to 4.8			
Palliative care	15	2.1	2.2	0/7	0.9 to 3.4				1.2	2.0	0/7	0.0 to 2.4			
Urologic cancer	12	4.3	2.5	2/9	2.8 to 5.9				3.1	2.4	0/9	1.5 to 4.7			
Gynecologic cancer	20	4.7	3.3	0/10	3.1 to 6.3				3.2	2.7	0/9	2.0 to 4.5			
Other specialties‡	6	3.8	3.5	0/8	0.2 to 7.5				3.0	2.8	0/7	0.1 to 5.9			
Professional seniority						.092	†	—					.421	*	—
Resident physician	47	5.6	2.7	0/10	4.8 to 6.4				3.7	2.8	0/9	2.9 to 4.5			
0-10 years	118	5.2	2.8	0/10	4.7 to 5.7				3.7	2.9	0/10	3.2 to 4.3			
≥ 11 years	155	4.5	3.0	0/11	4.0 to 5.0				3.2	3.0	0/11	2.7 to 3.7			
Primary country where medical education was completed						.099	.180	0.006					.003	.042	0.014
Sweden	257	4.8	2.8	0/11	4.5 to 5.2				3.3	2.8	0/11	2.9 to 3.6			
Other country	48	5.6	3.2	0/10	4.6 to 6.5				4.6	3.3	0/10	3.6 to 5.5			
Place of work						.008	.089	0.017					.026	.027	0.019
University/regional hospital	233	4.9	2.8	0/10	4.5 to 5.3				3.4	2.8	0/10	3.0 to 3.8			
Other hospital	52	5.8	2.8	0/11	5.0 to 6.5				4.2	3.2	0/11	3.3 to 5.1			
Other (hospice, home health care team, or comparable)	20	3.5	3.4	0/10	1.9 to 5.1				2.3	2.8	0/7	0.9 to 3.6			
Supplementary education with psychosocial focus						< .001	< .001	0.058					.002	.001	0.028
Yes	78	3.8	2.6	0/10	3.2 to 4.4				2.6	2.6	0/9	2.0 to 3.2			
No	227	5.3	2.9	0/11	5.0 to 5.7				3.8	3.0	0/11	3.4 to 4.2			
Perceived importance of communicating psychosocial issues with patients						.058	.042	0.01					.108	*	—
Not important	0	—		—	—				—		—	—			
Not especially important	4	6.0	1.8	4/8	3.1 to 8.9				4.5	3.7	0/8	1.4 to 10.4			
Fairly important	132	5.4	2.7	0/10	4.9 to 5.8				3.8	2.7	0/9	3.4 to 4.3			
Very important	202	4.6	3.0	0/11	4.2 to 5.0				3.2	3.0	0/11	2.7 to 3.6			
Amount of patient contact (on average)						.677	*	—					.332	*	—
Every day	234	5.0	2.9	0/11	4.6 to 5.4				3.5	2.9	0/11	3.1 to 3.9			
One or more times per week	60	4.9	2.9	0/10	4.2 to 5.7				3.6	3.0	0/10	2.8 to 4.3			
Less than once per week	11	4.2	3.0	0/9	2.2 to 6.2				2.2	2.4	0/7	0.6 to 3.8			

Abbreviations: AIC, Akaike Information Criterion; min/max, minimum/maximum; SD, standard deviation.
*The factor was excluded, $P > .1$ in univariate analysis. No. of perceived barriers/No. of perceived barriers affecting clinical practice were used as dependent variables in the stepwise regression.
†The factor was excluded by the AIC.
‡Other specialties included oncogenetics, skin cancer including malignant melanoma, brain tumors and cancers of the nervous system, cancer rehabilitation, endocrine tumors, testicular cancer, thyroid cancer, stem-cell transplantation, lung cancer, and head and neck cancer.

suggesting that many oncology staff feel they lack sufficient knowledge[15] and need education in psychosocial oncology.[44,45]

Implementation of instruments that evaluate patients' emotional distress/depression[46] and health-related quality of life instruments in clinical practice have shown positive effects on communication and on detecting physical and psychological problems.[47-50] However, routine use of such instruments is not widely implemented in clinical practice.

Many oncologists perceived a lack of guidelines for psychosocial oncology care. Guidelines do exists, both in Sweden[51] and

elsewhere, including the United States,[52-54] but have until now had limited impact on improving clinical oncology practice.[55,56] Implementing guidelines might be improved if they are better reinforced by mechanisms for evaluating and rewarding appropriate psychosocial care.[17]

Another commonly perceived barrier for psychosocial communication was insufficient resources to handle the psychosocial problems detected. This indicates that resource constraints hinder oncologists from communicating about psychosocial issues and, hence, the degree to which they are able to help patients. Lack of awareness of available services can also be a reason for nonreferrals to psychosocial support.[57] Simple pathways of referral are essential for high-quality psychosocial care. Existence of and knowledge about local resources for psychosocial care might increase the willingness to discuss and handle these issues and is something future research could explore.

Differences in number of perceived barriers among the subspecialties may be a result of different workloads, training, and background characteristics. Resources for palliative oncology care in Sweden are generally good, possibly explaining why these oncologists perceived fewer barriers. There might also be a self-selection of oncologists with a pronounced psychosocial orientation choosing to work within this field. The approach to psychosocial issues in palliative care could be explored further, generating information about efficient strategies possibly applicable for other specialties.

The average PPBS scores correspond to previous studies in other counties evaluating oncologists' psychosocial orientation,[14,24] and other research indicates that oncologists may be less psychosocially oriented than other medical professionals.[23] Suggested reasons are that oncologists might question the importance of psychosocial aspects, hold more traditional biomedical values,[14] or want to protect themselves from emotional distress.[15] However, more research is needed to be able to draw any conclusions regarding these issues. Attitudes toward psychosocial care highlight a problem that most likely started in medical school for many oncologists, thus more emphasis on psychosocial issues and holistic patient care during medical undergraduate education would be useful.

When generalizing the results, differences between health care systems and differences in roles between countries must be taken into consideration. In this study, several statistical comparisons were made therefore the results should be taken with some caution. Stepwise regression has limitations, such as inflation of R^2 values and biased P values toward 0 of selected factors, and thus the results should be interpreted with caution.

Pilot-testing the questionnaire before distribution was done to assure that the questionnaire would be feasible and have face and content validity. It is possible that relevant but less prevalent barriers were omitted. However, based on the principle of saturation, we were confident to have included most barriers of importance. One additional relevant barrier, low continuity of care, came up during the survey in the free-text section. This barrier should be considered for inclusion in future research. Furthermore, a few subspecialties were not response options, nonetheless, opportunities to add subspecialties existed in the free-text version, so this information could be coded correctly.

Our study describes the quantity of the most commonly perceived barriers. However, the results do not explore the impact of different barriers in relation to each other. The impact of one barrier may be greater than several barriers together. How the barriers affect clinical practice needs further study.

In conclusion, most clinical oncologists perceive one or more barriers in communicating psychosocial issues with their patients, and a majority of these barriers are perceived as affecting the oncologists' clinical practice. Oncologists who perceived the most barriers are also those less psychosocially oriented. Actions such as providing local resources, training oncologists/medical students in psychosocial communication, and improving psychosocial care follow-up should be taken to reduce these barriers, with the goal to facilitate optimal care and treatment for patients with cancer.

AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

The author(s) indicated no potential conflicts of interest.

AUTHOR CONTRIBUTIONS

Conception and design: All authors
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Final approval of manuscript: All authors

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Appendix

Table A1. Barrier Questions Based on Prior Research

No.	Question
1	I have insufficient knowledge on how to communicate best on psychosocial issues with patients.
2	The consultation time is insufficient to discuss psychosocial issues with patients.
3	There is a lack of good methods in clinical practice for evaluating patients' psychosocial health.
4	There is a lack of routines for what I should do if I discover psychosocial problems.
5	There is a lack of routines for addressing psychosocial issues with patients.
6	There is a lack of resources for taking care of the potential psychosocial problems I discover.
7	It is unclear whose responsibility it is to handle patients' psychosocial health.
8	It is not the physician's responsibility to ask patients about their psychosocial health.
9	There is a lack of support from physician colleagues on how to handle issues concerning patients' psychosocial health.
10	There is a lack of support from the clinic's leaders (eg, guidelines and memos) regarding how to handle issues concerning patients' psychosocial health.
11	Feedback is lacking on how I practice my profession concerning patients' psychosocial health.

Table A2. Percentage of Oncologists Perceiving Different Types of Barriers to Psychosocial Communication

Characteristic	No. of Oncologists	Barriers Perceived in Communicating About Psychosocial Issues With Patients (%)											Barriers Perceived Affecting Clinical Practice (%)									
		1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11
Age, years																							
≤ 35	41	44	90	59	51	68	51	51	2	22	71	88	32	81	42	37	42	44	32	0	15	34	39
36-45	101	43	83	54	44	52	57	52	5	26	63	71	33	68	33	34	39	47	39	3	17	40	29
46-55	90	25	71	44	30	39	51	41	6	21	49	68	20	62	33	24	29	40	33	3	11	31	30
56-65	85	27	65	52	35	38	47	41	4	20	55	61	20	51	40	29	29	34	29	4	13	31	31
≥ 66	16	25	70	50	25	50	50	38	6	19	44	63	25	69	50	19	44	44	38	6	13	38	38
Sex																							
Female	184	39	79	57	44	50	58	49	4	26	62	72	29	69	40	36	38	45	38	3	16	37	33
Male	159	26	70	46	31	42	46	40	6	18	52	65	21	58	33	23	30	37	29	3	11	31	30
Subspecialty																							
Nonspecific, working with two or more diagnoses	177	37	83	54	46	55	56	51	5	25	67	75	29	71	36	34	38	46	37	3	16	40	32
Breast cancer	28	36	79	54	21	50	64	39	4	29	54	75	32	68	50	18	39	50	39	0	18	36	50
Pediatric cancers	29	24	58	41	24	31	38	45	3	0	45	55	17	45	31	21	28	28	41	3	0	24	31
GI cancer	24	33	75	50	25	38	63	42	0	8	42	67	25	46	42	21	29	46	38	0	4	21	21
Malignant lymphoma	28	28	72	61	56	61	44	33	11	22	56	67	17	67	33	44	50	39	17	11	11	22	28
Palliative care	16	25	13	25	6	13	19	31	0	13	31	25	19	6	13	6	6	13	25	0	6	13	6
Urologic cancer	13	23	77	70	31	15	39	31	8	15	62	85	8	69	46	31	15	31	23	0	15	39	39
Gynecologic cancer	21	38	81	43	43	29	38	38	5	38	43	67	33	71	33	33	24	24	19	5	19	33	24
Other subspecialties*	9	25	63	50	25	38	63	38	0	38	38	63	25	63	38	13	38	38	25	0	25	25	38
Professional seniority																							
Resident physician	47	47	87	49	45	60	55	49	2	23	62	83	36	79	32	28	47	43	32	0	11	34	32
0-10 years	118	36	80	55	39	47	55	48	6	25	58	68	27	69	38	34	33	45	37	4	18	36	32
≥ 11 years	155	27	69	47	33	40	49	42	5	20	55	66	23	56	36	27	31	37	32	4	12	32	30
Primary country where medical education was completed																							
Sweden	283	31	74	50	35	45	52	46	3	20	58	67	23	62	35	28	33	41	35	3	11	33	28
Other country	55	44	84	56	51	53	53	42	15	31	53	75	38	73	44	38	40	44	29	7	27	42	49
Place of work																							
University hospital	264	32	80	52	37	46	52	42	5	21	55	69	25	68	37	30	35	39	31	3	13	33	30
Other hospital	53	36	70	53	49	57	66	60	6	26	74	81	28	55	36	34	38	59	47	6	23	47	43
Other (hospice, home health care team, or comparable)	21	29	38	38	19	29	29	43	0	24	48	33	19	33	29	14	19	24	38	0	5	14	19
Supplementary education with psychosocial focus																							
Yes	84	18	67	38	14	29	50	35	4	20	46	54	14	54	30	12	23	35	29	2	13	24	26
No	250	38	79	56	46	53	53	49	5	23	62	74	29	68	39	36	38	43	36	4	14	38	33

NOTE. Barrier 1, I have insufficient knowledge on how to communicate best on psychosocial issues with patients; Barrier 2, The consultation time is insufficient to discuss psychosocial issues with patients; Barrier 3, There is a lack of good methods in clinical practice for evaluating patients' psychosocial health; Barrier 4, There is a lack of routines for how I should act if I discover psychosocial problems; Barrier 5, There is a lack of routines for addressing psychosocial issues with patients; Barrier 6, There is a lack of resources for taking care of the potential psychosocial problems I discover; Barrier 7 = It is unclear whose responsibility it is to handle patients' psychosocial health; Barrier 8, It is not the physician's responsibility to ask patients about their psychosocial health; Barrier 9, There is a lack of support from physician colleagues on how to handle issues concerning patients' psychosocial health; Barrier 10, There is a lack of support from the clinic's leaders (eg, guidelines and memos) regarding how to handle issues concerning patients' psychosocial health; Barrier 11, Feedback is lacking on how I practice my profession concerning patients' psychosocial health.

*Other subspecialties included oncogenetics, skin cancer including malignant melanoma, brain tumors and cancers of the nervous system, cancer rehabilitation, endocrine tumors, testicular cancer, thyroid cancer, stem-cell transplantation, lung cancer, and head and neck cancer.