

# Physicians' attitudes towards psycho-oncology, perceived barriers, and psychosocial competencies: Indicators of successful implementation of adjunctive psycho-oncological care?

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## Abstract

**Objective:** Clinical experience reveals a gap between recommended psychosocial care and actual support for psycho-oncology. Physicians are essential for managing psychosocial distress and for the successful implementation of psycho-oncology. The aim was to explore physician's attitudes towards psycho-oncology, their self-perceived barriers towards referral to psycho-oncology, and their personal psychosocial competencies in a maximum-care hospital.

**Method:** Semistructured interviews informed the development of a questionnaire administered to a monocentric sample of 120 physicians at the University Hospital Frankfurt. The data were exploratively analysed.

**Results:** One hundred two physicians completed the questionnaire. Physicians provided high ratings concerning the value of psycho-oncology, beliefs about its efficacy, and their personal commitment to psycho-oncology. Physicians noticed especially barriers that originated from patients themselves. They estimated their own psychosocial education and knowledge as moderate but rated their psychosocial skills and abilities as higher. Frequency of integration of psychosocial care was most strongly influenced by physicians' psychosocial competencies and their personal commitment to psycho-oncology. Integration of psycho-oncological issues occurs in 43% of patients.

**Conclusion:** Physicians are an important indicator of successful implementation. The discrepancy between the positive evaluation and actual support for psycho-oncology may be explained by several factors, eg, the lack of support from clinic leaders. Patient-related barriers, most often identified by physicians, seem to be an indication of actual lack of psychosocial competencies. Physicians' psychosocial competencies positively affect the implementation of psycho-oncology. Sound knowledge of psychosocial topics may result in increased integration of psychosocial aspects into treatment. Therefore, medical training should focus more on psychosocial issues.

## KEYWORDS

attitude, cancer, distress screening, hospitals, perceived barriers, physicians, psycho-oncology, psychosocial competencies, questionnaires and university

## 1 | INTRODUCTION

Individuals diagnosed with cancer experience high levels of psychic and physical symptoms. There is a strong relation between the number of symptoms and quality of life.<sup>1</sup> Twenty-five percent to 40% of all cancer patients experience levels of stress that require psycho-oncological care.<sup>2-5</sup> The effectiveness of psycho-oncological interventions has been documented for a range of outcomes: quality of life, psychosocial distress, psychiatric disorders, and physical difficulties, and the positive effects of psycho-oncological support are well documented.<sup>6-9</sup> Comprehensive cancer care includes psycho-oncological treatment. The reliable identification of psychic distress is a prerequisite for adequate psycho-oncological treatment. Clinical experience shows that the actual support for psycho-oncology and the inclusion of psycho-oncology into routine treatment are lacking.

Physicians are essential in cancer treatment, not only from the medical perspective but also as a link between patients and supportive services and as the first line in the assessment of all manner of associated issues, especially psychosocial distress.<sup>10-13</sup> Therefore, to guarantee comprehensive cancer care, it is important to learn more about physicians' attitudes towards psychosocial care (how much they value psycho-oncology, their personal commitment towards psycho-oncology, and beliefs about the efficacy of psycho-oncology) and their psychosocial competencies (their education and knowledge of psycho-oncology and their psychosocial skills and abilities) and identify the barriers they perceive in integrating psycho-oncology into patient care. Today, only a few studies exist that explicitly address physicians' attitudes towards psycho-oncology, their social competencies, the barriers they perceive in referring patients to psycho-oncology, and how this relates implementation of psycho-oncology in routine care or the acceptance of a standardized screening measure.

A survey study from 1997 by Del Giudice et al explored physicians' attitudes towards psychosocial issues. They found that physicians were less likely than oncology nurses to offer patients psychosocial support on a prophylactic basis. Physicians also expressed greater concern about the scientific validity and potential psychological damage from the group of psychosocial support than nurses.<sup>14</sup>

Fagerlind et al explored oncologists' psychosocial attitudes, beliefs, and perceptions regarding barriers against psychosocial communication. They used the Physicians' Psychosocial Beliefs Scale (PPBS) to measure physicians' psychosocial orientation.<sup>15</sup> In their sample, physicians scored on average in the midrange of the scale, meaning that their psychosocial orientation was also average. They were also able to show that less psychosocially oriented oncologists perceived more barriers and that a supplementary education on psychosocial issues was able to improve oncologist's psychosocial orientation and decrease the number of perceived barriers. The most common barriers affecting clinical practice were insufficient consultation time, lack of resources to handle potential problems, and the lack of good methods to evaluate patients' psychosocial health.<sup>10</sup>

Analyzing oncology professionals' (including physicians) patterns of referral to community psychosocial support services, Kam et al<sup>11</sup> found that (among other factors) attitude and subjective norm explained 51% of the variance on the outcome: intention to refer. Barriers to referral were financial considerations, lack of local services,

and patients' unwillingness to discuss support needs. The study also found that a considerable proportion of professionals had never referred patients for basic level Cancer Helpline support. So far, those three studies are the only ones that used a quantitative approach.

Using a qualitative design, for example, Neumann et al<sup>16</sup> highlighted barriers to the use of psycho-oncological care, including physicians' subjective perceptions. Oncologists felt that they lacked information regarding available psycho-oncological services and did not have a clear concept of psycho-oncological treatment and the evidence concerning its effects. Another barrier proved to be physicians' subjective norm or attitude that psycho-oncology is not an integral part of cancer care, which reduced acceptance and hindered integration of psycho-oncological treatment. These consequences, in turn, also reduced patients' acceptance of psycho-oncology. The authors suggested that future research should investigate barriers to accessing psycho-oncology. In particular, physicians' attitudes towards psycho-oncological care were thought to be important regarding the implementation of psycho-oncology.<sup>10-12</sup>

In an interview study, Absolom et al<sup>17</sup> asked 23 cancer professionals, 12 of them were physicians, about their role in the detection and management of emotional distress, their attitudes towards use of validated screening instruments, access to support services, and barriers to the management of emotional distress. Although detection of distress was seen as a responsibility of the whole team, nurses were heavily depended upon for the assessment and management of emotional distress. There was a lack of experience with screening tools, and reservations about their routine implementation were reported. Lack of referral guidance and access to psychological care was reported as major barriers to effective management of emotional distress.

As can be seen from clinical experience, the reported findings above (time of publication varies from 1997-2013), and additional findings from recent reviews,<sup>18-20</sup> several different factors influence the integration and acceptance of psychosocial care. To the authors' knowledge, no current study, especially at a comprehensive cancer center (CCC), has simultaneously explored oncologist's attitudes towards psycho-oncology, the barriers that oncologists perceive towards referral to psycho-oncology, and oncologists' self-perceived psychosocial competencies, as well as the influence of those factors on the integration of psycho-oncology in patient care and the acceptance of the implementation of a standardized screening measure.

## 2 | AIMS AND RESEARCH QUESTIONS

The basic idea is that physicians who adopt a positive attitude towards psychosocial aspects tend to be more empathic than other physicians during consultations and provide more information regarding psychosocial topics, consistent with the results of previous research.<sup>19,21,22</sup> In summary, we assume that the provision of psychosocial support is dependent on the attitudes of physicians to psychosocial care. We pursued the following research questions: the primary purpose was to exploratively assess physicians' attitudes towards psycho-oncology as reflected in the value they place on psycho-oncology in setting of a CCC, their personal commitment towards psycho-oncology, and their beliefs about its efficacy. Further, we wanted to know which barriers

from the physicians' point of view affected patient referral to psycho-oncology. Thirdly, we were interested on how competent physicians feel in dealing with psychosocial issues, meaning how they themselves rate their education and knowledge as well as their skills and abilities concerning psychosocial issues. Finally, we looked into how those factors relate to the integration of psycho-oncology services into patient care as perceived by the oncologists and the acceptance of a screening measure. We also examined relations with demographic variables.

### 3 | METHODS

#### 3.1 | Study design

The study was a monocentric, quantitative, and nonexperimental study among physicians at the University Hospital Frankfurt.

#### 3.2 | Questionnaire

To the knowledge of the authors, there are currently no instruments available with which to assess the above-mentioned variables of interest. We therefore decided to construct a questionnaire of our own that would be able to address our research questions. Twelve semistructured interviews were conducted with physicians holding different positions and working in different departments. Seven broader topics were covered in the interviews: in addition to demographic and general questions, we concentrated specifically on attitudes towards and knowledge about psycho-oncology, behavioural indicators of integration, perceived barriers, and social norms towards psycho-oncology. The interviews were recorded, transcribed, and pseudonymized, and a content analysis was performed.

On the basis of theoretical considerations, the resulting 132 items were summarized into 13 categories. For the purpose of this study, we report only the variables relevant to our research questions (Table 1). In addition, demographic variables were recorded.

Data protection and personal privacy guidelines were applied according to the recommendations of the staff council and ethics committee of the University Hospital Frankfurt (ethical approval #256/13).

Due to the objections of the staff council, the frequency of integration of psycho-oncological aspects into patient treatment could only be assessed on the basis of self-reported, not by direct consultation of patient files.

For each item, participants were asked to select the response that best described their opinion using a 6-point Likert scale. Items belonging to the scale *frequency of integration of psycho-oncological issues into patient treatment* were rated on a numerical rating scale in percentages (0%-100%).

#### 3.3 | Data collection

The questionnaire was distributed to all oncologists at the University Hospital Frankfurt and was returned anonymously via the internal mail system. All answers were treated with confidentiality.

#### 3.4 | Data analysis

Data were analysed with Statistical Package for Social Sciences (SPSS) for Windows version 23. Negatively worded items were recoded. Means and standard deviations as well as Cronbach's  $\alpha$  were calculated for all scales (Table 1). Detailed tables for each individual scale can be found in Tables A1 to A8). Finally, we examined the relationship between scales that were selected a priori using the correlational analysis (Spearman's  $\rho$ ) with Bonferroni correction. To examine group differences, we used a Kruskal-Wallis test. A Mann-Whitney  $U$  test with Bonferroni correction was performed to examine differences between individual subgroups more closely.

## 4 | RESULTS

#### 4.1 | Sample

The current study used a convenience sample of  $N = 102$  physicians at the University Hospital Frankfurt. The response rate was 85%. Refer to Table 2 for the sociodemographic and professional sample

**TABLE 1** Questionnaire structure and scale properties

Main category Subcategory	Number of Items	M	SD	$\alpha$	Minimum-maximum
Attitudes					
<i>Value of psycho-oncology in the hospital</i>	7	5.24	0.55	0.48	1-6
<i>Personal commitment to psycho-oncology</i>	4	4.97	0.99	0.77	1-6
<i>Beliefs about the efficacy of psycho-oncology</i>	8	4.69	0.59	0.77	1-6
Perceived barriers	23	2.38	0.62	0.90	1-6
Psychosocial competencies					
<i>Psychosocial education and knowledge</i>	5	3.62	1.02	0.79	1-6
<i>Skills and abilities</i>	7	4.40	0.70	0.82	1-6
Frequency of integration of psycho-oncological aspects into patient treatment	8	42.9	18.5	0.85	0-100
Acceptability of a screening measure	11	4.24	0.81	0.84	1-6

**TABLE 2** Demographic variables and professional characteristics

	M (SD, range)	n	%
Age, y <sup>a</sup>	36.7 (8.9, 26-64)	93	
Gender <sup>b</sup>			
Female		49	52.1
Male		45	47.9
Professional status <sup>c</sup>			
Junior doctor		58	68.2
Consultant		20	23.5
Senior doctor		5	5.9
Department head		2	2.4
Mean work experience, y <sup>d</sup>	9.4 (8.2, 0.25-35)	96	
Mean work experience in oncology, y <sup>e</sup>	7.4 (7.1, 0-30)	90	
Proportion of oncological patients, % <sup>f</sup>	60.4 (30.1, 1-100)	88	

<sup>a</sup>Nine participants did not provide details regarding their age.

<sup>b</sup>Eight participants did not provide details regarding their gender.

<sup>c</sup>Seventeen participants did not provide details regarding their professional status.

<sup>d</sup>Six participants did not provide details regarding their work experience.

<sup>e</sup>Twelve participants did not provide details regarding their work experience in oncology.

<sup>f</sup>Fourteen participants did not provide details regarding the percentage of oncological patients.

characteristics. On average, the physicians had a mean work experience in oncology of 7.4 years (SD = 7.1).

## 4.2 | Attitudes

Physicians rated the *value of psycho-oncology in the hospital* as high (M = 5.24, SD = 0.55), and they reported a high degree of *commitment to psycho-oncology* (M = 4.97, SD = 0.99), as well as positive *beliefs about the efficacy of psycho-oncology* (M = 4.40, SD = 0.70).

## 4.3 | Perceived barriers

Overall, the *perceived barriers* were not believed to be substantial hindrances to accessing psycho-oncological care (M = 2.38, SD = 0.62).

**TABLE 3** Results of the correlational analyses

	Attitudes			Perceived Barriers	Psychosocial Competencies	
	Value of Psycho-Oncology in the Hospital	Personal Commitment to Psycho-Oncology	Beliefs About the Efficacy of Psycho-Oncology		Psychosocial Education and Knowledge	Skills and Abilities
Frequency of integration	0.212*	0.328***	0.211*	-0.184*	0.310***	0.363***
Acceptance of a screening measure	0.285***	0.089	0.181*	-0.478***	0.102	0.213*

\*P < 0.05 (one-sided).

\*\*P < 0.01 (one-sided).

\*\*\*P < 0.004 (significance level after Bonferroni correction).

The most relevant barriers originated from the patients themselves are as follows:

- "When questioned, the patient reports no distress." (M = 4.00, SD = 1.02)
- "The patient refused to talk about it." (M = 3.54, SD = 1.05)
- "The patient refuses psycho-oncological counselling." (M = 4.54, SD = 1.27)

## 4.4 | Psychosocial competencies

On average, physicians estimated their *psychosocial education and knowledge* as being moderate (M = 3.62, SD = 1.02). On the other hand, participants mostly agreed with items concerning their *psychosocial skills and abilities* (M = 4.40, SD = 0.70).

## 4.5 | Frequency of integration

The mean number of patients treated per physicians over the last 6 months was 142 (M = 142.22, SD = 141.37). On average, oncologists estimated that they covered psycho-oncological issues in their consultations with 43.0% of their patients (M = 42.9%, SD = 18.5%).

## 4.6 | Acceptability

On average, physicians tend to favor the implementation of a standardized screening measure (M = 4.24, SD = 0.81).

## 4.7 | Correlational analyses

Table 3 provides an overview of all correlational analyses. Among the oncologists' attitudes towards psycho-oncology, we found a moderate positive correlation between *personal commitment* and *frequency of integration* and also between the *value of psycho-oncology* and *acceptance of a screening measure*. After Bonferroni correction, other correlations were not significant anymore. For the psychosocial competencies, we found that *psychosocial education and knowledge* as well as *skills and abilities* correlated moderately and positively with *frequency of integration*. Here also, no other correlations were significant after Bonferroni correction. Lastly, we found that the

perceived barriers had a strong negative correlation with acceptance of a screening measure.

### 4.8 | Associations with demographic variables

We found associations of physicians' general work experience and their specific cancer-related work experience with psychosocial education and knowledge ( $\rho_{(96)} = 0.430, P < 0.001$  and  $\rho_{(95)} = 0.373, P < 0.001$ , respectively) as well as skills and abilities ( $\rho_{(90)} = 0.337, P = 0.001$  and  $\rho_{(89)} = 0.328, P = 0.002$ , respectively). The results of group differences in physicians' general work experience indicate that there are significant differences in terms of psychosocial education and knowledge ( $H_{(2)} = 13.21, P = 0.001$ ) as well as skills and abilities ( $H_{(2)} = 9.99, P = 0.007$ ). For psychosocial education and knowledge and skills and abilities, only the two extreme groups, ie, lowest and highest general work experience, differed significantly from one another (Table 4). No further associations with other demographic variables were found.

## 5 | DISCUSSION

In addition to improving quality of life, psychosocial care improves compliance, prevents or reduces anxiety and depressive symptomatology, and helps patients cope with their diagnosis and its consequences. Physicians are essential for assessing and managing psychosocial distress. They are an important link between patients and supportive services. On the basis of this assumption, we designed a study to identify oncologists' attitudes towards psycho-oncology, the barriers they perceive in referring patients to psycho-oncology, and their self-perceived psychosocial competencies. The current study also sought to identify how these factors relate to the frequency of integration as perceived by the oncologists and the acceptance of a screening measure. Therefore, a comprehensive questionnaire was developed and administered to a sample of physicians practicing at

the University Hospital Frankfurt. To our knowledge, this work is the first study to consider quantitative data from a large sample of physicians (N = 102) at a CCC.

## 6 | CONCLUSION

In conclusion, the exploratory results of our study underline the assumption that physicians play an important role in psychosocial care and in ensuring that patients receive adequate psycho-oncological treatment. Overall physicians report positive attitudes towards psycho-oncology. It appears that physicians' personal commitment and value of psycho-oncology are crucial when it comes to the integration of psycho-oncology into routine patient treatment and the implementation of a screening measure. Our results show that the personal commitment to psycho-oncology (attitude) and especially the psychosocial competencies are related to the frequency of integration of psycho-oncological aspects into patient treatment. An increased focus on psychosocial issues and psychosocial communication should be achieved through specific training. Physicians indicated that the most prevalent barriers they perceived originated from patients. Our results show a first tendency and highlight topics that need further elaboration. Future studies to substantiate these findings should employ a larger, more diverse sample from, eg, different CCCs (multicentric design) and reconsider the problem of social desirability and acquiescence bias in greater depth to produce more generalizable results. Similarly, it would be desirable to obtain objective data on the acceptance of a distress screening and the implementation of psychosocial care in routine treatment. A further study could assess the attitude towards psycho-oncology and the relation to actual referrals to psycho-oncology as documented in the patient file for example. Also, the assumption that the department heads' opinion of psychosocial care is vital for the actual integration of psycho-oncology into patient care could be investigated. Lastly, it seems to us that an integrated programme for implementing a distress screening is called for grounded on an evidence-based strategy in which implementation, referral, and follow-up are accounted for and continuously evaluated.

**TABLE 4** Results of group comparisons

	Group Comparison	n	Mann-Whitney U test	Z	P
	General Work Experience (years)				
Psychosocial education and knowledge	0-10 vs 11-20	73	455.0	-2.306	0.021
	0-10 vs $\geq 21$	73	125.0	-3.025	0.002
	11-20 vs $\geq 21$	19	47.0	-1.902	0.057
	0-10 vs $\geq 21$	9			
	11-20 vs $\geq 21$	19			
	$\geq 21$	9			
Skills and abilities	0-10 vs 11-20	71	522.0	-1.511	0.131
	0-10 vs $\geq 21$	71	125.5	-2.961	0.003
	11-20 vs $\geq 21$	19	51.5	-1.683	0.092
	0-10 vs $\geq 21$	9			
	11-20 vs $\geq 21$	19			
	$\geq 21$	9			

### 6.1 | Clinical implications

Overall, the participating physicians report positive attitudes towards psycho-oncology: they recognize its value in the hospital and identify it as an essential part of patient care. Physicians rate their personal commitment to psycho-oncology and their beliefs about its efficacy as high. The physicians' personal commitment to psycho-oncology correlates most strongly with their assessment of how often they actually integrated psychosocial aspects into patient care. There is also a correlational tendency of the other two attitudinal aspects with integration efforts, suggesting that personal held beliefs and attitudes towards an attitudinal object (psycho-oncology) influence actual behaviour (integration of psychosocial aspects into patient care) as is postulated by the theory of planned behavior.<sup>23</sup> As mentioned above, the study of Kam et al showed a similar relation in an albeit more diverse and much smaller sample of Australian oncology professionals from various South Australian health institutions (eg, hospital, acute,



and primary setting).<sup>11</sup> Similarly, one attitudinal aspect (value of psycho-oncology) correlated with the acceptance of a screening measure, further strengthening the assumed attitude-behavior influence.

The analysis of the semistructured interviews suggested that barriers arise mainly in the form of structural, processual, and interpersonal and intrapersonal problems with which physicians must cope during the treatment process (Table A6).<sup>24</sup> On average, physicians did not believe that barriers were particularly relevant. But the results indicate that physicians tend to notice especially those barriers that originate from patients. Mostly, the perceived reluctance of the patient to discuss his distress or the patient's assertion of not being distressed at all was seen as a reason not to further pursue the topic. A similar finding was made in the study by Kam et al, where this was the fourth most prevalent reason for nonreferral.<sup>11</sup> This suggests that physicians do not consider psycho-oncological support for patients who do not specifically express a desire or need.<sup>25</sup> This is often complicated by commonly held misconceptions of patients as well as physicians that patients think that their physician brings up the topic of psychosocial issues and the physicians think that the patient will do the same, resulting in no one addressing potential psychosocial problems. A further shared misconception can be that both sides think physicians are exclusively responsible for somatic problems, which can be aggravated by the fact that most physicians have a technological/scientific orientation rather than a socioemotional orientation.<sup>26</sup> Furthermore, our study revealed a strong negative association between perceived barriers and the acceptability of a screening measure. A correlational tendency existed also between perceived barriers and frequency of integration. Therefore, it seems that a higher level of perceived barriers is associated with less acceptance of a standardized screening procedure and probably with fewer integration efforts.<sup>27</sup>

Concerning the psychosocial competencies, our findings revealed that the agreement with the scale education and knowledge, which could be understood as representing a theoretical approach to psychosocial issues, was considerably lower than that with skills and abilities, reflecting the practical application of this knowledge. This might suggest that physicians are reluctant to proactively educate themselves formally but rather follow a learning-by-doing approach. It could be argued that in a highly stressful working environment like a university hospital, few possibilities to formally educate oneself about topics that are not core elements of one's own specialization remain, and physicians rather try a more informal and time-efficient way of dealing with subjects like psychic distress. This sentiment is further substantiated by the finding that the agreement with both scales increases with seniority; ie, physicians with more work experience estimated their psychosocial education and knowledge as well as their skills and abilities to be greater than did their less experienced colleagues. There was also an association of both scales with the frequency of integration of psycho-oncological aspects into patient treatment. The more familiar physicians are with psychosocial topics, the more likely they are to take these factors into account during routine medical care. It may be argued that sound knowledge of psychosocial topics results in increased integration of psycho-oncological aspects into patient treatment. This is consistent with findings from Fagerlind et al<sup>10</sup> and Kam et al.<sup>11</sup> Medical training should therefore incorporate an increased focus on psychosocial issues and might

enhance physicians' self-efficacy, an opinion shared by many authors.<sup>10,25,27,28</sup> A correlational tendency was observed between skills and abilities and the acceptance of a screening measure. This might be a hint in the direction that those already comfortable with exercising their knowledge are especially likely to accept the implementation of a standardized screening measure.

Overall, our findings suggest that the oncologists principally deem the implementation of a distress screening measure acceptable. Furthermore, they themselves estimate to integrate psychosocial aspects in 43% of their consultations. Despite these results, clinical experience does not reflect this positive evaluation of psycho-oncology but often reveals a rather low support for psycho-oncology.<sup>24</sup> With our results, we cannot answer why this discrepancy exists and what its origins are, but we assume that it is due to a bias to answer socially desirable and an acquiescence bias. Another possibility could be the heavy work load or difficult organizational and structural circumstances experienced by physicians in their daily routine as well as the patient-related barriers specified by the physicians. A further factor might be an aspect of corporate climate, eg, the attitudes of superiors, especially the department heads towards psycho-oncology. For example, Fagerlind et al<sup>10</sup> identified the lack of support from clinic leaders as a major barrier for oncologists in handling patients' psychosocial health. This may explain the discrepancy between their positive evaluation of psycho-oncology and the low support for psycho-oncology that can be encountered in practice. Also, the high evaluation of own skills and abilities suggests that there may be an implicit understanding of what psycho-oncology is about, and therefore, physicians believe they are being able to subjectively assess patients' distress without referring to standardized instruments. Therefore, future research should go beyond the exploratory stage of this study and put more emphasis on aspects like the above-mentioned discrepancies, eg, subjective evaluations of distress and motivational aspects that could drive a successful implementation programme.

## 6.2 | Study limitations

The current study has a range of limitations, which predominantly affect the generalizability and significance of the results. We investigated a monocentric sample of physicians at the University Hospital Frankfurt. The small sample size in comparison with the large number of questionnaire items prevented the use of confirmatory factor analysis to examine the structure of the scales. Given the purely exploratory nature of the study, numerous statistical tests were used to address the research questions. The large number of tests is likely to have resulted in  $\alpha$ -error accumulation. We took this into account by using the Bonferroni correction where necessary. Physicians were selected by department heads to participate in the semistructured interviews and were instructed to complete the questionnaire by their superiors, eg, during team meetings. This selection method raises questions about the voluntariness of participation (selection bias) and suggests that a social desirability bias may be present (eg, the overestimation of self-reported items). Social desirability is generally an issue when relying on self-report instruments and might have been increased here by the instruction

of superiors. Additionally, it could be argued that a self-report instrument is not able to capture the finer nuances of doctor-patient interaction like the time spent with patients or the quality of the communication.

Another limitation is that because of legal concerns, the frequency of integration of psycho-oncology into patient treatment could only be assessed retrospectively by the oncologists themselves and not objectively, eg, by inspection of the patient file.

Although these issues were beyond the scope of our exploratory approach, they should be kept in mind for further investigations in this area. The fact that most of the participants were junior doctors could be seen as a limitation but also reflects the clinical reality; ie, the bulk of doctor-patient interactions happens with junior physicians. Given the selection process and the composition of the study sample, the generalizability of the results beyond the University Hospital Frankfurt is uncertain.

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## SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

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