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Original Paper

Spiritual Healing Among Norwegian Hospitalised Cancer Patients and Patients' Religious Needs and Preferences of Pastoral Services

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In a national questionnaire-based multicentre study, the use of 'alternative medicine', here called non-proven therapy (NPT), was examined. Five questions about the patients' religious beliefs and their preferences concerning pastoral services in the hospitals were included. Among the 911 invited patients, 642 (70.5%) were included in the analysis. Spiritual healing, defined as faith healing and healing by hand, was the most frequently used NPT among Norwegian cancer patients. Almost 50% of cancer patients using spiritual healing had used NPTs, mainly spiritual healing, prior to the diagnosis of cancer. Women, elderly people and patients using faith healing described themselves more often as religious. 139 (23%) of the responding patients reported a strengthening of their religious belief after the diagnosis of cancer. Patients less than 45 years of age and better educated patients expressed more frequently that all patients should be offered pastoral services during the hospital stay. Older patients, in spite of being more religious, expressed that the patients themselves had to request such services.

Key words: Norway, alternative medicine, spiritual healing, cancer patients, religious belief, pastoral service

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INTRODUCTION

For the majority of cancer patients, the diagnosis of cancer is a shocking experience caused by the unpredictability of the disease and the lack of good treatment results seen in many cancer forms. Patients' 'coping strategies' in this situation might differ. In addition to the traditional psychological coping strategies, many patients use 'alternative medicine' [1] or seek help from God, through 'normal prayers' or spiritual healing [2]. The official religion in Norway is Lutheran Protestantism. Approximately 88% (last official count 1980) of the population are registered as such.

The place of pastoral service in Norwegian hospitals and how the patients should be offered this service during hospital stay have been debated, but to our knowledge never evaluated. The use of spiritual healing among the Norwegian general public was described by Bruusgard and associates [3] in 1978. They reported spiritual healing to be common especially in the northern part of Norway. Faith healing and healing by hand (spiritual healing) are well-defined entities in Norway, both clearly separated in peoples mind from well wishing and normal religious prayers. These phenomena have not previously been studied among Norwegian cancer patients.

In a national multicentre study, cancer patients' use of 'alternative medicine' including spiritual healing, here called non-proven therapy (NPT), was studied. The patients were also questioned about their religious needs while staying in hospital.

The aim of this analysis was to examine the extent of use of spiritual healing (healing by hand or faith healing), and the factors that influence it among Norwegian cancer patients. At the same time, we wanted to explore the relationship between healing and religious belief and to clarify to what extent the diagnosis of cancer influences patients' religious beliefs.

PATIENTS AND METHODS

A nationwide questionnaire-based study was performed in December 1992 to evaluate the use of NPTs among cancer

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patients in Norway. The study was undertaken at all five Norwegian regional cancer centres, one in each health region, to obtain a cross-sectional national sample. Health regions I and II are situated in the south and south-west of Norway, including the capital Oslo; health region III in the western part; and health region IV in the central part of Norway. The most northern parts of the country are defined as health region V.

At four of the five regional centres, all in- and outpatients attending the centres during 1 week were invited to take part in the study. In the fifth centre, The Norwegian Radium Hospital (NRH) (health region I), all inpatients seen in the departments of general oncology (combined medical oncology and radiotherapy) and department of gynaecology on one specific day in the same period were included. The study was restricted to 1 day at this centre due to a much larger sample size. The age distribution at this centre was similar to the other centres. Sixty-three per cent (125/200) of the NRH population were women. At the other centres, the percentage of female patients ranged from 53 to 61%. These differences were not statistically significant ($P = 0.5$). 44 of the 49 patients with gynaecological cancer were included at NRH. There were, however, no significant differences between the group of patients with gynaecological cancer and the rest of the participants from NRH with respect to their answers to the questionnaire. The patients with gynaecological cancer could therefore be included in the final analysis. The participating physicians at each centre reported the medical characteristics for all patients attending their institutions.

An expanded version of a questionnaire developed at the University of Tromsø, Norway, was used [4]. The questionnaire was designed by a consensus of experts and its feasibility tested in a pilot study among outpatients at the Department of Oncology. A validating study including 31 patients using a structured interview, with the questionnaire as an interview guide was performed. The questionnaire was completed by the patients within the outpatient clinics during their scheduled visits, while inpatients completed the questionnaires in their hospital rooms. The patients were asked to answer questions about their religious beliefs and their use of NPTs. Forty-eight of the 50 questions in the questionnaire were in a closed form. In two questions, the patients were invited to add open comments. Five questions concentrated on patients religious needs, shown in the Appendix.

Patients able to read and understand the written information and the questionnaire were eligible for the study. 911 patients were invited to participate. 101 patients declined to participate and 128 patients did not return the questionnaire to the investigator. A total of 682 patients (75%) answered the questionnaire. 33 patients answered the questionnaire, but did not sign the written informed consent form and were excluded from the study. 7 patients were excluded because of missing information on age and diagnosis. The final analysis was based on a patient population of 642 (71%). A total of 374 women and 268 men with a mean age of 58.5 years, ranging from 17 to 91 years, were included in the study. Non-participants were older, had worse performance status and were more often inpatients than participants [5]. Sex and diagnoses were evenly distributed. 12 patients did not answer whether they were users of NPTs or not and were excluded from the analysis concerning differences between the users and non-users. The number of participants differed in different questions owing to missing data.

The statistical analyses were conducted using the statistical package SAS with tests for differences between categorical variables with chi-square as given in the Proc Freq procedure [6]. Logistic regression analysis was used to analyse simultaneously factors influencing religious belief, change in religious belief during time of disease and factors influencing use of spiritual healing [7]. The patients were told that all information offered would be treated confidentially and that refusal to participate in the study would not in any way jeopardise their care and treatment in the hospitals. The study was authorised by The Board of Ethics of Health Region V. Permission to store personal information concerning each patient was granted by the Norwegian Data Inspectorate.

RESULTS

Forty-one per cent (246/600) of the participating patients considered themselves to be religious, 39% (236/600) to be non-believers, while 20% (118/600) were in doubt (Table 1).

A total of 24% of the patients (145/594) reported a change in their religious belief after the diagnosis of cancer (Table 2). 139 patients (96%) reported a strengthening of their belief, whereas 6 patients (4%) reported a weakening (data not shown). Patients with advanced disease and patients diagnosed more than 3 months prior to the study reported more frequently a change in their religious belief. Similarly, patients using faith healing and patients who defined themselves religious also reported a change in religiousness after contracting cancer.

In a multivariate analysis of religious faith and change in belief during cancer disease, women, patients older than 60 years and patients using NPTs were found to a larger extent to consider themselves religious. There were no significant differences between believers and non-believers with respect to educational level, stage of disease, time since diagnosis, performance status or treatment intention. Users of NPTs who considered themselves to be believers and with metastatic disease, more often experienced a change in the depth of religious belief during disease compared to other patients. In the multivariate analysis, time since diagnosis was no longer found to be a significant risk factor of change of beliefs (Table 3).

79 of 243 patients (33%) who defined themselves as believers, reported a change in the depth of their belief, 2 of whom reported a decline. Among the non-believers, 31/227 (14%) reported a shift in their religious belief. 31 of 110 patients (29%) who were in doubt about their religiousness reported a change after the diagnosis of cancer. Four of these patients reported a decline in faith during their disease.

Women, patients with performance status ECOG 2–4, patients treated for relapsed disease and patients from the Oslo area and the western part of Norway, were less satisfied with the availability of pastoral services (Table 4). Young patients and those with higher educational level more often stated that patients should be offered contact with a priest (data not shown). Of patients less than 45 years of age, 75/131 (57%) had this opinion compared to 176/465 (38%) of patients above 45 years of age ($P = 0.001$). Among patients using faith healing, 80% wanted pastoral services to be offered to all patients. Very few patients felt that all patients should be encouraged to meet a priest while staying at the department (1%).

A total of 126 (20%) of the 630 participating patients used NPTs in one form or another. When summating all patients

Table 1. Religious beliefs according to sex and age

	Religious $n = 246$ (41%)		In doubt $n = 118$ (20%)	Non-religious $n = 236$ (39%)
	n (%)		n (%)	n (%)
Sex				
Female ($n = 344$)	173 (70)		74 (63)	97 (41)
Male ($n = 256$)	73 (30)		44 (37)	139 (59)
	$\chi^2 = 43.79$	d.f. = 2	$P = <0.001$	
Age in years				
15–29 ($n = 31$)	10 (32)		6 (19)	15 (48)
30–44 ($n = 99$)	31 (31)		16 (16)	52 (53)
45–59 ($n = 196$)	73 (37)		42 (21)	81 (41)
60–74 ($n = 194$)	83 (43)		45 (23)	66 (34)
75–91 ($n = 80$)	49 (61)		9 (11)	22 (28)
	$\chi^2 = 26.17$	d.f. = 8	$P = 0.001$	

42 (6.5%) patients did not answer the question.

Table 2. Changes in religious belief after contracting cancer

	No change n (%)			Slightly changed n (%)	Changed to a great extent n (%)
Sex					
Female ($n = 340$)	250 (74)			63 (19)	27 (8)
Male ($n = 254$)	199 (78)			37 (15)	18 (7)
	$\chi^2 = 1.94$	d.f. = 2	$P = 0.34$		
Age in years					
15–29 ($n = 30$)	25 (83)			2 (7)	3 (10)
30–44 ($n = 96$)	71 (74)			18 (19)	7 (7)
45–59 ($n = 194$)	140 (72)			44 (23)	10 (5)
60–74 ($n = 190$)	143 (75)			27 (14)	20 (11)
75–91 ($n = 84$)	70 (83)			9 (11)	5 (6)
	$\chi^2 = 14.10$	d.f. = 8	$P = 0.08$		
Stage of disease					
No disease/local ($n = 263$)	214 (18)			36 (14)	13 (5)
Regional/metastatic ($n = 312$)	222 (71)			60 (19)	30 (10)
	$\chi^2 = 8.76$	d.f. = 2	$P = 0.01$		
Users of NPTs					
Non-users of NPTs ($n = 461$)	365 (72)			72 (16)	24 (5)
Users, non-religious ($n = 86$)	59 (69)			18 (21)	9 (11)
Users, religious forms ($n = 36$)	16 (44)			10 (28)	10 (28)
	$\chi^2 = 34.0$	d.f. = 4	$P < 0.001$		
Are you a religious person?	164 (68)			44 (18)	35 (14)
Yes, I am religious ($n = 243$)	79 (72)			25 (23)	6 (6)
I do not know ($n = 110$)	196 (86)			29 (13)	2 (1)
No, I am not religious ($n = 227$)	$\chi^2 = 40.14$	d.f. = 4	$P < 0.001$		
Months after diagnosis					
0–3 months ($n = 162$)	133 (82)			24 (15)	5 (3)
More than 3 months ($n = 420$)	306 (73)			74 (18)	40 (10)
	$\chi^2 = 8.14$	d.f. = 2	$P = 0.02$		

Characteristics such as education, number of relapses, inpatient/outpatient, intention of treatment or performance status (ECOG), did not separate the groups.

Table 3. Factors influencing patients' religious beliefs and changes of such during cancer disease

Variable	Religious beliefs among cancer patients		Change of religiousness during cancer disease	
	OR*	95% C.I.	OR*	95% C.I
Sex				
Male	1.00	Reference	1.00	Reference
Female	3.61	2.32–5.59	0.99	NS
Age in years				
15–29	1.00	Reference	1.00	Reference
30–44	0.82	NS	1.72	NS
45–59	1.06	NS	1.64	NS
60–74	2.16	NS	1.19	NS
75–91	4.01	1.28–12.60	1.00	NS
Use of NPTs				
No use of NPTs	1.00	Reference	1.00	Reference
Use of NPTs (religious forms inclusive)	2.61	1.52–4.50	1.79	1.12–2.86
Stage of disease				
Local disease	1.00	Reference	1.00	Reference
Metastatic disease	1.27	NS	1.62	1.05–2.49
Religiousness				
Not believing in God	—	—	1.00	Reference
Uncertain	—	—	2.04	1.13–3.68
Believing in God	—	—	2.67	1.64–4.37

*Adjusted for the variables included in the table, in addition to non-important factors in these analysis, education, family life, time since diagnosis, purpose of treatment and function status (ECOG).

using spiritual forms of NPTs alone or in combination with non-spiritual forms, we found that 63 patients used spiritual and 63 used non-spiritual forms of NPTs. In the northern and western part of Norway, we found that 71% of the users of NPTs (30/42) had used spiritual healing. Patients from the eastern and southern parts of Norway including Oslo used more non-religious forms of NPTs. Only 36% (23/64) used spiritual healing, while 64% (41/64) used non-religious forms of NPTs. In central Norway 50% of the users of NPTs (10/20) used healing by hand or faith healing (Table 5).

When patients using healing by hand alone or in combination with others NPTs were defined as users of healing, we found that healing by hand was more frequently used by women (8%, 29/368) than men (3%, 8/262), a difference of 4.8% (C.I.: 1.29–8.31) and more often by younger (10%, 14/134) than older patients (6%, 23/408), a difference of 4.8% (C.I.: 1.04–8.56). Among patients under 30 years of age, all users (6/31) used spiritual healing (data not shown). Non-spiritual forms of NPTs seemed to be more frequently used by men (13%, 33/262) than women (8%, 30/368) but the difference failed to reach significance (Table 6). In a multivariate analysis, spiritual healing was more often used by patients reporting to be religious (odds ratio (OR) = 5.13, 95% C.I.: 2.46–10.68) and by patients being in doubt of their own belief (OR = 3.39, 95% C.I.: 1.43–8.00) compared to patients who were non-believers. Significantly more patients knowing their diagnosis of cancer for more than 3 months used spiritual healing than patients more recently diagnosed (OR = 3.15, 95% C.I.: 1.40–7.04) while stage of disease had no significant impact on patients decision to use spiritual healing or not (mutually adjusted).

Patients were classified according to their religious belief. Religious patients used non-spiritual NPTs as much as the non-religious patients, but used more spiritual forms of NPT (Table 7). Of 13 patients that used faith healing only, 2 expressed doubt whether they were religious or not and 11 defined themselves as believers. Patients employing healing by hand did not consider themselves as more religious than non-users of NPTs. Non-religious patients never used faith healing and only seldom healing by hand. In the group of patients uncertain about their religious beliefs, healing by hand was employed, while few used faith healing.

17 of 36 (47%) employing faith healing had been prior users of NPTs (faith healing, 8/17, healing by hands, 6/17, and other types of alternative medicine, 3/17). In contrast, users of non-religious forms of NPTs had in no instance used faith healing as treatment for other diseases before contracting cancer. Of 84 patients that used non-religious NPTs as cancer patients, 33 (39%) had employed NPTs as treatment for an earlier non-malignant disease. 4 of these 33 patients (12.1%) had used healing by hand alone or in combination with other NPTs (data not shown).

Table 4. Satisfaction with spiritual care and pastoral services in the hospital

	No		Yes
	n (%)		*n* (%)
Sex			
Female ($n = 198$)	87 (44)		111 (56)
Male ($n = 157$)	51 (33)		106 (68)
	$\chi^2 = 4.84$	d.f. = 1	$P = 0.03$
Age in years			
15–29 ($n = 23$)	9 (39)		14 (61)
30–44 ($n = 70$)	26 (37)		44 (63)
45–59 ($n = 112$)	39 (35)		73 (65)
60–74 ($n = 108$)	42 (39)		66 (61)
75–91 ($n = 42$)	22 (52)		20 (48)
	$\chi^2 = 4.01$	d.f. = 4	$P = 0.39$
Treatment			
Primary treatment ($n = 151$)	59 (39)		92 (61)
First relapse ($n = 76$)	29 (38)		47 (62)
Second relapse ($n = 65$)	34 (52)		31 (48)
Outpatient control ($n = 57$)	14 (25)		43 (75)
	$\chi^2 = 9.86$	d.f. = 3	$P = 0.02$
ECOG			
0 ($n = 155$)	53 (34)		102 (66)
1 ($n = 98$)	36 (37)		62 (63)
2–4 ($n = 92$)	47 (51)		45 (49)
	$\chi^2 = 7.31$	d.f. = 2	$P = 0.03$
Health regions*			
Central south/east area (I) ($n = 113$)	48 (43)		65 (58)
Oslo area (II) ($n = 59$)	30 (51)		29 (49)
Western areas (III) ($n = 33$)	19 (58)		14 (42)
Central areas (IV) ($n = 91$)	23 (25)		68 (75)
Northern areas (V) ($n = 59$)	18 (31)		41 (70)
	$\chi^2 = 17.86$	d.f. = 4	$P = 0.001$
Religious belief			
Not believing in God ($n = 156$)	75 (48)		81 (52)
In doubt ($n = 66$)	17 (26)		49 (74)
Believing in God ($n = 130$)	45 (35)		85 (65)
	$\chi^2 = 11.33$	d.f. = 2	$P = 0.003$

*Health regions: I (Norwegian Radium Hospital), II (Ullevål), III (Haukeland), IV (Trondheim), V (Tromsø).
Characteristics such as education, number of relapses, inpatients/outpatients, intention of treatment or performance status (ECOG), did not separate the groups.

Table 5. Nature of non-proven therapies used by the cancer patients according to health regions (n = 630)*

Health region	(I) Central south/east areas ($n = 200$)	(II) Oslo area ($n = 134$)	(III) Western areas ($n = 62$)	(IV) Central areas ($n = 153$)	(V) Northern areas ($n = 81$)
Non-users of NPTs ($n = 504$)	165 (83%)	105 (78%)	45 (73%)	133 (87%)	56 (69%)
Healing by hand/healing by prayers ($n = 63$)	13	10	12	10	18
Other NPTs ($n = 63$)	22	19	5	10	7
Sum users ($n = 126$)	35 (18%)	29 (22%)	17 (27%)	20 (13%)	25 (31%)
	$\chi^2 = 30.17$	d.f. = 8	$P < 0.001$		

*Missing 12 patients.

Table 6. Nature of non-proven therapies used by the cancer patients according to sex and age groups (n = 630)

	Sex			Age in years			
	Female (368)	Male (262)		15–45 (134)	45–75 (408)	>75 (88)	
Number	%	%	P†	%	%	%	P†
No NPTs	80	80	0.98	75	78	96	0.004
Non-spiritual NPT	8	13	0.09	9	12	2	0.02
Healing by hand alone or combined*	8	3	0.02	10	6	0	0.005
Faith healing alone or combined	4	5	0.08	5	4	2	0.6

*7 patients used healing by prayers and faith healing. 4 patients used multiple therapy forms also including healing by hand and faith healing. These 11 patients are included in the group called healing by hand. †χ^2 test.

Table 7. Nature of non-proven therapies used by the cancer patients according to their religious beliefs (n = 589)

	Religious n = 240 (40.8%)	In doubt n = 115 (19.5%)	Non-religious n = 234 (39.7%)
	n (%)	n (%)	n (%)
No NPTs	177 (74)	93 (81)	199 (85)
Non-spiritual NPT	25 (10)	8 (7)	27 (12)
Healing by hand alone or combined*	17 (7)	11 (10)	8 (3)
Faith healing alone or combined	21 (9)	3 (3)	0 (0)
	$\chi^2 = 31.94$ d.f. = 6	$P < 0.001$	

*7 patients used healing by prayers and faith healing. 4 patients used multiple therapy forms also including healing by hand and faith healing. These 11 patients are included in the group called healing by hand.
For 41 patients, answers concerning faith or use of NPTs were missing.

The cost of faith healing is very low. All patients had used less than NOK 500 (approximately £50). No patients considered this sum to represent an economical burden.

10 of 126 patients that used NPTs believed that this treatment might cure their disease. Among these patients, 7 used faith healing and 3 patients non-religious forms of NPTs. A total of 20% of patients using faith healing believed in the possibility of cure. Three patients believed they had been cured by alternative treatment. All of them used faith healing. One patient had seminomatous testicular cancer stage I, one patient had breast cancer stage 1 and one patient had metastatic colon cancer. The last patient died later of progressive disease.

DISCUSSION

This study suggests that spiritual healing (faith healing and healing by hand) is used by 10% (63/630) of Norwegian cancer patients. The use of spiritual healing is therefore as commonly used as non-religious forms of NPTs. Spiritual healing is often used in combination with other forms of NPTs. We have previously documented that spiritual healing is the preferred method when only one method of NPT is used [5].

The study population is likely to be representative for the patient population seen in Norwegian oncological centres since all the major Norwegian treatment centres took part in the study. A response rate to the questionnaire of 70% is acceptable as the study population was unselected including very sick and old patients. The non-participants in the study were older than the participants. This might have introduced a selection bias giving prevalence figures higher than the actual one since older patients use NPTs less often. However, the participants may under report their use in such a non-anonymous study leading to a lower estimate of users of NPTs.

The inclusion of faith healing in the group of NPTs might have confused some patients since they may not define faith healing as a form of NPT. If so, this would result in a too low estimate of the number of patients using faith healing. In a validating study performed at the University Hospital of Tromsø, 31 patients answered an identical questionnaire. Fourteen days later the patients participated in a structured interview where the questionnaire was used as an interview guide. This study suggested an under reporting of faith healing of 30%, but this figure is uncertain due to the small sample population (only 12 patients were users of NPTs in the study). The use of other forms of NPTs were not under reported [8].

The finding that spiritual forms of healing are more common in the western and northern part of Norway is supported

by a study of 808 participants in the general population from 1978 [3]. Between 50 and 60% of the respondents from the northern part of Norway did believe in or had actually used faith healing while only 15–25% of the study sample from rural areas in the southern and eastern parts believed in faith healing. In a study in 1977, among 150 individuals of the general population of northern Norway 51 (34%) used NPTs. More than half of the participants believed in faith healing or healing by hand [9]. In a report from two hospitals situated in the southern part of Norway in 1980, next of kin of recently deceased patients were asked whether the patients did believe in faith healing or not. Only 15% found reason to believe that the patients had had such a belief [10]. It could be argued that availability of spiritual healing affects use. The more extensive use of spiritual healing in northern and western Norway could also be a reflection of non-spiritual NPTs not being available to the same degree in these regions. Similarly, spiritual healing could be less available in southern Norway. We have, however, no reason to believe this is so.

From other studies, it has been known that spiritual healing is common in many countries. In an American study from 1984, Cassileth reported an 18.8% use of spiritual healing among users of NPTs. It was reported to be the fifth most common used NPT [11]. In a report from Switzerland, healing by hand was frequently employed among users of NPTs (16.9%), while faith healing was seldom reported (3.6%) [12].

The finding that patients using spiritual healing had often employed this technique previously in the treatment of non-malignant disease, corresponds to our findings of patients' use of non-religious NPTs [5]. These strong associations with both type and frequency of earlier use are not reported in other studies, but seem to be strong predictors for use of NPTs when becoming a cancer patient.

4 of 10 in the study population defined themselves as religious. The same number of participants described themselves as non-religious while 2 out of 10 expressed doubt in own beliefs. This corresponds well with the numbers found in the general Norwegian population [13].

The finding that 1 of 4 patients experience a change in religious intensity after the diagnosis of cancer has been supported by others. Newelles and associates [14] comparing patients from the U.K. and the U.S.A. found that 36% of the U.K. patients and 67% of the patients from the U.S.A. described themselves as religious before the diagnosis of cancer. Among the believers, 56% of U.K. patients reported a stronger belief after contracting cancer compared to 35% of the American patients. No patients with a firm religious belief before cancer reported a reduction in intensity of their beliefs when contracting cancer. In the group of patients being in doubt whether they were believers or not, 6 and 7% in the two groups reported reduction in faith intensity. A German survey by Berger reported that patients using non-religious NPTs had a stronger belief than patients not using NPTs (67 versus 33%) during cancer disease [15, 16].

As seen in Table 3, advanced cancer, use of NPTs and religiousness were factors predicting a higher frequency of change towards stronger belief among cancer patients during their disease. These results correspond to the findings by Ringdal from 1994. She found that cancer patients with a serious prognosis more often defined themselves as believers [17].

Patients' description of their belief and their use of faith healing strongly predict changes in religious belief. The finding in our study that many users of faith healing have applied religious forms of NPTs in an attempt to cure non-malignant disease, support the importance of prior religious experiences with respect to use of religious forms of NPTs in later sickness.

6 patients reported a decline of their faith after the diagnosis of cancer. 2 of these patients described themselves as religious prior to diagnosis. This may indicate that in time of danger and despair patients with a Christian background might turn to God for more support. A reaction of turning away from God and loosing faith seems to occur very seldom among Norwegian cancer patients.

The common policy in Norwegian hospitals with respect to pastoral service has been to await patients signalling a wish of contact with the priest. This policy has been grounded on the view that faith is a private matter. It has been argued that offering contact with a priest could be interpreted as a way of conveying information of bad prognosis to the patient. Others have argued for a selective offer of pastoral service to patients where the staff have the impression that this is the wish of the patients. Studies among nurses have indicated that they inaccurately assessed their patients spiritual needs [18, 19]. The difficulties in such assessments are also demonstrated in our study. The finding that older patients were less satisfied with the offer of pastoral service in the hospitals is contradicted by the finding that they felt that pastoral services should be given only on demand from the patient. Younger patients seemed to be more open-minded and stated more often that all patients should be offered these services.

The knowledge about the use of spiritual healing among Norwegian cancer patients is very scarce. It is the most widely used NPT in our study, but we have little information about the form of faith healing applied. Many patients see faith healing as a very powerful remedy. Some cancer patients believe that spiritual healing might cure even advanced disease.

1. U.S. Congress, Office of Technology Assessment. Unconventional Cancer Treatment, OTA-H-405. Washington, DC: U.S. Government Printing Office, September 1990.
2. Van Den Borne HW, Pruyn JFA, Meij KID. Help given by fellow patients. In Stool BA, ed. *Coping with Cancer Stress*. Dordrecht: Martinus Nijhoff, 1986, 103–112.
3. Bruusgaard D, Efskind L. The Norwegian population's belief in and contact with folk-medicine. *J Norweg Med Assoc* 1977, **98**, 1385–1388.
4. Risberg T. Årsaker til kreftsykdom og bruk av alternativ medisin. Folkehelseoppgave Institutt for samfunnsmedisin, UiTø, 1991.
5. Risberg T, Lund E, Wist E, *et al.* The use of non-proven therapy among patients treated in Norwegian oncological departments. A cross sectional national multi-centre study. *Eur J Cancer* 1995, 31A, 1785–1789.
6. SAS Institute Inc. *SAS Procedures Guide, Release 6.03 Edition*. Cary, North Carolina, SAS Institute Inc., 1988.
7. Breslow NE, Day NE. *Statistical Methods in Cancer Research. The Analysis of Case-control Studies*. IARC Scientific Publications No. 32. Lyon, International Agency for Research on Cancer, 1980.
8. Skarshaug A. Use of alternative medicine among cancer patients in the northern part of Norway, 1994. Student thesis.
9. Efskind L, Johansen AT. Folk-medicine and supernatural cures. *J. Norweg Med Assoc* 1976, **97**, 1582–1586.
10. Wergeland SL. Omsorg for døende og deres pårørende. En retrospektiv analyse ved 2 sykehus. NAVF gruppe for helsetjesteforskning 1980, Rapport no. 1.
11. Cassileth BR. Contemporary unorthodox treatments in cancer medicine. *Ann Intern Med* 1984, **101**, 105–112.
12. Morant R, Jungi WF, Koehli C, Senn HJ. Why do cancer patients use alternative medicine. *Schweiz med Wschr* 1991, **121**, 1029–1034.

13. Boyum B. *Holdninger til religion.* ISBN 82-7170-1304. 1991, no. 92.
14. Newelles DJ, Gadd EM, Pristman TJ. Presentation of information to cancer patients: a comparison of two centres in the UK and USA. *Br J Med Psychol* 1987, **60**, 127–131.
15. Berger RDP. Tumour patients and alternative medicine: an attempt at characterising users of alternative methods in oncology. *Dtsch med Wschr* 1989, **114**, 323–330.
16. Eidinger RN. Cancer patients insight into their treatment, prognosis and unconventional therapies. *Cancer* 1984, **53**, 2736–2740.
17. Ringdal GI. Quality of life in cancer patients. Thesis, University Hospital of Trondheim, Norway, 1994.
18. Highfield MF. Spiritual health of oncology patients. Nurse and patient perspectives. *Cancer Nurs* 1992, **15**, 1–8.
19. Soderstrom KE, Martinson IM. Patients' spiritual coping strategies: a study of nurse and patient perspectives. *Oncol Nurs Forum* 1987, **14**, 41–46.

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APPENDIX

Five questions asked concerning religious belief and patients needs of pastoral services within hospital wards

(1) Do you see yourself as a religious/believing person? *Yes, No, I do not know.*
(2) Would you say that your faith has changed in strength during your cancer disease? *No, Yes, but only to a slight degree, Yes, very much so.*
(3) If your religious faith has changed during your cancer disease. Are you then: *A stronger believer in God, Less believing in God.*
(4) Did you find the offering of pastoral service/spiritual comfort satisfying within the hospital? *No, Yes.*
(5) Do you feel that an offer of pastoral service/spiritual comfort should be given to the patients within hospitals? *Never, Only if demanded by the patient, All patients should be offered such service, All patients should be encouraged to seek contact with a priest.*

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