Psychological Reactions in Patients with Malignant Melanoma

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Psychological and psychosomatic reactions to malignant melanoma were studied, comparing patients with tumour thickness ≤ 0.8 mm versus > 0.8 mm and recurrent versus non-recurrent patients. Gender differences were also studied. Consecutive melanoma patients, Stage I ($n = 144$), were interviewed at their first postsurgery follow-up visit to an oncology clinic and completed questionnaires 7 and 13 months later. The questionnaire contained items regarding interest in nevi, sleeping problems, psychosomatic complaints, and the Hospital Anxiety and Depression Scale. Patients with a more unfavourable prognosis (tumour thickness > 0.8 mm), subjected to regular medical procedures, did not differ from those with a more favourable prognosis (≤ 0.8 mm), except reporting more sleeping problems. Women had considerably higher levels of problems than men. Amongst patients with an unfavourable prognosis, those with recurrence within 2 years showed lower levels of anxiety at the first visit compared with those free from recurrence after 2 years.
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INTRODUCTION

THE INCIDENCE of and disease-related mortality in malignant melanoma have shown a recent increase in Sweden and in many other European countries [1]. Women have a significantly better prognosis than men during the first 8 years after diagnosis [2]. In order to improve early detection, treatment results and prognosis, the Swedish Melanoma Study Group initiated a care programme for all stages of cutaneous malignant melanoma in 1976 [3]. As part of the care programme, all patients in the Stockholm-Gotland region are referred to one oncology clinic (Radiumhemmet) for follow-up about 3 months after surgical treatment.

Tumour thickness is regarded as one of the main prognostic factors in malignant melanoma [4]. The medical procedures and follow-ups are designed differently based on tumour thickness. Patients with lesions ≤ 0.8 mm have a good prognosis and few develop recurrent disease. In present clinical practice, these patients are therefore excluded from clinical follow-up after a second visit to the oncology clinic 6 months after the first. Patients with tumours > 0.8 mm are followed every third month for 5 years. The first visit includes a medical examination, inspection of nevi, information about risk factors and the follow-up visits.

In several studies, the aim has been to estimate the prevalence of psychological distress in cancer patients [5, 6]. The groups

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studied often comprise a spectrum of cancer diagnoses and all stages of disease. In view of the increasing incidence of malignant melanoma, there are surprisingly few studies concerning psychological issues related to this disease [7].

Temoshok and co-workers [8] have summarised a series of studies concerning psychosocial factors in relation to the progression and prognosis of malignant melanoma. The most important of the variables related to prognosis was biological tumour characteristics. In an evaluation of a 6-week psychiatric intervention, newly diagnosed patients with malignant melanoma, Stage 1, despite their good prognosis, exhibited psychological distress similar to other cancer patients [9, 10]. However, Cassileth and colleagues [11] found melanoma patients to be equal to the general public and superior to other dermatology patients in terms of emotional well-being. In a Swedish study [12], patients with disseminated malignant melanoma exhibited moderate psychological distress and high overall global quality of life. Our previous studies of participants in a melanoma prevention programme have revealed relatively low levels of psychological and psychosomatic problems in participants with hereditary risk of melanoma [13], but higher levels of problems in participants in public screening [14]. These results led to an interest in studying psychological and psychosomatic reactions in melanoma patients, Stage 1. Melanoma patients can be divided into two groups according to the different routines for follow-up of melanomas ≤ 0.8 mm and > 0.8 mm and a related difference in prognosis [3]. It was supposed that patients with tumours > 0.8 mm would exhibit higher levels of psychological and psychosomatic problems compared with patients with thinner tumours, with a very favourable prognosis and who are released from follow-up after 6 months.

Few studies have examined gender differences in psychologi-

cal reactions to cancer. This may be due to the fact that the sexes are unequally represented for many cancer diagnoses. No gender difference in depressive symptoms was found in a study of cancer patients assessed by the Beck Depression Inventory [15]. Considerable gender differences were found in our study of participants in public melanoma screening [14]. Women were more concerned about nevi, had higher levels of anxiety, tiredness and psychosomatic complaints. The gender difference in prognosis [2], and the recent finding in Scotland of a diminished mortality in women, but not in men, as an effect of preventive campaigns [16], warrant further studies of gender differences in this area.

Previous research indicates that delay in seeking treatment is related to a lack of knowledge about the signs of melanoma, the severity of disease and the risks associated with delay [8, 17]. Delay has also been found to be related to tumour thickness and to two psychological variables, minimising the seriousness of melanoma in general and of the patient's own condition [18]. In a study of 68 melanoma patients [10], low levels of baseline distress were significantly associated with recurrence and death, and the authors suggested that low-level initial distress may be indicative of high levels of minimisation [18]. It was, therefore, of interest to compare psychological and psychosomatic responses at the first visit among patients with and without recurrence within 2 years.

The present study compares melanoma patients with lesions ≤ 0.8 mm and > 0.8 mm with respect to psychological and psychosomatic responses at three points of assessment. Secondly, gender differences with respect to these variables were studied. A third aim was to compare patients with melanomas > 0.8 mm, free from recurrence within 2 years from diagnosis with patients with recurrence concerning their psychological and psychosomatic responses at the first visit.

PATIENTS AND METHODS

Subjects and procedure

A total of 151 consecutive patients with malignant melanoma, Stage I, who visited the Department of Oncology, Radiumhemmet, Karolinska Hospital, for their first medical examination from March 1989 to March 1990 were approached. All patients had been diagnosed and had undergone wide excision approximately 3 months prior to the visit at one of two plastic surgery departments in Stockholm. They were informed about the diagnosis prior to the present study.

Patients with *in situ* melanoma or other cancer diagnoses were excluded.

Informed consent was obtained from all patients in accordance with the requirements from the research ethics committee. 4 patients rejected participation and 3 were not interviewed due to practical reasons (5%).

In all, 144 patients, 72 women and 72 men, completed the first questionnaire in the presence of a psychologist at their first visit to the clinic, before the medical examination. The time for completing the questionnaire was approximately 15 min.

Clinical data were collected from patient files. Patient status at the three points of assessment is presented in Table 1.

Patients with recurrence were not approached with a second or third questionnaire. Following exclusion of patients with recurrence, 127 patients received a second questionnaire 7 months after the first visit, which was completed by 117 (92%). To minimise direct psychological effects of follow-up visits, assessments were performed 1 month after follow-up. Thirteen months after the first assessment, 121 patients still remaining in

Table 1. Number of patients at three points of assessment

	7 months	13 months	2 years*
Malignant melanoma† Stage I	127	121	111
Recurrence or metastatic disease	11	12	9
Multiple melanoma	2	3	3
Other cancer diagnoses	3	4	4
Dead	1	4	15‡

*Data missing for two patients.
†Sample size = 144 of first assessment.
‡Thirteen dead from malignant melanoma.

the study received a third questionnaire by mail, which was completed by 100 patients (83%).

Mean age was 51 years (range 19–70). A total of 77 patients (54%), 43 women (56%) and 34 men (44%) had melanomas ≤ 0.8 mm and 64 patients (44%) had melanomas > 0.8 mm. There were no statistical gender (Chi-squared) or age (*t*-test) differences between patients with melanomas ≤ 0.8 mm and those with thicker tumours. Data concerning tumour thickness were missing for 3 patients.

Instrument

The questionnaire was developed for a previous study of members of families with hereditary risk for melanoma [13] and included the following variables.

Interest in nevi. 'Are you interested in your nevi?' This item was developed as a measure of perceived susceptibility and attention to nevi. Five alternative answers were provided from 'not at all' (0) to 'very much' (4).

Sleeping problems. Items dealing with sleep constituted the following variables: sleep disturbances (five items regarding insomnia, repeated awakenings during the night, restless sleep and nightmares); tiredness (three items dealing with difficulties in waking, not feeling thoroughly rested, and tiredness at work). Patients were asked to indicate the frequency of each of the listed problems during the last 6 months. Six response categories were provided ('never', 'some per month', 'a few times per month', 'some per week', 'a few times per week', and 'every night', scored 0–5). The patients were also asked to estimate their present quality of sleep. Five alternative answers were given from 'very good' (5) to 'very bad' (1).

Psychosomatic complaints. Patients were asked to indicate to what extent they suffered from each of 17 physical and psychosomatic symptoms during the previous week (weariness, physical condition, pain, infections, difficulties to concentrate, problems with memory, overall sleep disturbances, loss of appetite, non-ulcer dyspepsia, dizziness, headache, nausea, shoulder pain, heart palpitations, muscle tension and sweating) with scores from 0 ('not at all') to 4 ('very much'). Internal consistency of the combined variable was high (Cronbach alpha = 0.83).

The Hospital Anxiety and Depression Scale (HAD) [19]. This is designed for the purpose of detecting anxiety and depressive

problems in patients visiting medical hospital out-patient clinics and was included in the questionnaire. The HAD scale is composed of 14 items, seven for anxiety and seven for depressive symptoms with scores 0–3. The patient is asked to indicate how he/she has felt during the last week. The HAD scale has been found to be a valid instrument [20, 21]. The original authors proposed cut-off points of $\geq$ 8 on both subscales for identifying possible clinical cases [19]. A cut-off point of $\geq$ 18 for using the HAD scale as a 14-item scale has been identified in a study of women with advanced breast cancer [21].

Statistical methods

Analyses of variance (repeated measures) were performed to test differences between groups (patients with tumours $\leq$ 0.8 mm/> 0.8 mm and males/females), points of assessment and their interaction with respect to interest in nevi, sleeping problems, psychosomatic complaints and anxiety and depressive symptoms. *Post hoc* analyses were performed for 'interest in nevi' using Tukeys' HSD-test. In this analysis, only patients responding at all points of assessment were included (n = 84–89). Chi-squared tests were performed to test differences in the proportion of patients scoring above the cut-off points on the HAD anxiety and depression subscales at different points of assessment (n = 95–141). Students' t-test was used to compare responses at the first visit among patients with and without recurrence within 2 years of diagnosis.

RESULTS
Patients with melanomas $\leq$ 0.8 mm versus > 0.8 mm

Means of the psychological and psychosomatic variables are presented in Table 2. Analysis was performed on a 'groups by assessments' design.

A significant groups by assessments interaction was found for 'interest in nevi' due to an increase in those with melanomas > 0.8 mm after the first visit, but there was no increase in the group with melanomas $\leq$ 0.8 mm [$F(2,168)$ = 4.89, P < 0.01]. There were significant differences between the groups at the first and second assessment, but not at the third (Tukeys' HSD-test).

There was a statistically significant main group effect for two variables (Table 2). Throughout, patients with melanomas $\leq$ 0.8 mm scored lower than those with melanomas > 0.8 mm

on 'sleep disturbances', [$F(1,87)$ = 8.52, P < 0.01] and higher on 'quality of sleep' [$F(1,89)$ = 6.18, P < 0.05].

The means on the HAD depression subscale increased significantly between the first two assessments [$F(2,178)$ = 3.64, P < 0.05]. Overall means were 2.33 at the first, 2.95 at the second and 2.98 at the third assessment. An analysis of variance (repeated measure) for each item separately revealed an effect of time for three items (6, 'I feel cheerful'; 10, 'I have lost interest in my appearance'; 12, 'I look forward with enjoyment to things').

No main effects or interactions were found for any of the other variables.

The number and proportion of patients scoring above the cut-off point ($\geq$ 8) on the HAD subscales are presented in Table 3.

There were no significant differences between the patients with tumours $\leq$ 0.8 mm and those with thicker tumours in the proportions of possible clinical cases on the HAD anxiety or depression subscales, respectively.

When using the combined HAD scale, a total of 8 (6%), 7 (7%) and 8 (9%) patients scored above the cut-off point of $\geq$ 18 at the three points of assessment, respectively. No significant difference was found between those with tumours $\leq$ 0.8 mm and those with thicker tumours.

Gender differences

The difference in tumour thicknesses between men (mean = 1.40 mm) and women (1.05 mm) was non-significant, but after exclusion of 1 woman with an extreme value of 5.6 mm, a significant difference between men and women (mean = 0.98 mm) emerged (t = 2.35, df = 138, P < 0.05). A corresponding difference between men and women [$F(1,269)$ = 6.46, P < 0.01] was found in the data of the Regional Cancer Registry for the study period, with means of 1.09 mm for women and 1.56 mm for men. The means in the Regional Cancer Registry were somewhat higher than those in the present data (upper age limit $\leq$ 70 years) due to a significant increase of tumour thickness with age [$F(5,269)$ = 3.78, P < 0.01].

Means for men and women on the psychological and psychosomatic variables are presented in Table 4. There was a significant groups by assessments interaction for 'interest in nevi' due to a successive increase in men and a decrease in women [$F(2,172)$ = 4.10, P < 0.05]. *Post hoc* analyses (Tukeys' HSD-

Table 2. Means of patients with melanomas $\leq$ 0.8 mm and > 0.8 mm on psychological and psychosomatic variables at three assessments

Variables (Max scores)	n^*	First visit		7 months		13 months		F-value† for group effect
		77 $\leq$0.8 mm	64 >0.8 mm	76 $\leq$0.8 mm	49 >0.8 mm	74 $\leq$0.8 mm	45 >0.8 mm	
Interest in nevi (4)		2.02	1.71	1.91	2.26	1.96	1.97	0.00
Tiredness (15)		3.90	4.56	3.45	4.62	3.78	4.92	1.79
Sleep disturbances (25)		4.37	7.72	4.88	7.28	4.54	7.66	8.52‡
Quality of sleep (5)		4.16	3.55	4.02	3.67	4.12	3.67	6.18§
'Psychosomatic complaints' (4)		0.41	0.54	0.42	0.50	0.47	0.50	0.87
HAD Anxiety (21)		4.26	4.64	4.33	5.33	4.12	5.03	1.05
HAD Depression (21)		2.16	2.64	2.95	2.94	2.88	3.15	0.16

*Data concerning tumour thickness were missing for 3 patients at first visit, and for 2 patients at the other two assessment points.
†df = 2, 84–89; df, degrees of freedom.
‡P < 0.01, §P < 0.05.

Table 3. Number and proportion (%) of patients scoring above the cut-off point (>8) on the HAD anxiety and depression subscales

		First visit		7 months		13 months	
	n =	77	64	76	49	74	45
Tumour thickness		≤0.8 mm	>0.8 mm	≤0.8 mm	>0.8 mm	≤0.8 mm	>0.8 mm
Anxiety		14 (18)	9 (14)	13 (19)	12 (26)	12 (19)	11 (32)
Depression		3 (4)	4 (6)	4 (6)	3 (6)	6 (10)	6 (18)
Gender		Women	Men	Women	Men	Women	Men
	n =	72	72	70	52	66	55
Anxiety		14 (19)	9 (13)	17 (24)	8 (14)	16 (24)	7 (13)
Depression		5 (7)	2 (3)	4 (6)	3 (5)	10 (15)	2 (4)

Table 4. Means of men and women on psychological and psychosomatic variables at three assessments

		First visit		7 months		13 months		
Variables (max scores)	*n*	72	72	70	57	66	55	
		Women	Men	Women	Men	Women	Men	*F*-values* for group effect
Interest in nevi (4)		2.2	1.5	2.2	1.8	2.0	1.9	4.10†
Tiredness (15)		5.3	2.6	5.1	2.6	5.4	2.9	15.75§
Sleep disturbances (25)		6.4	4.1	6.8	4.2	6.3	4.8	4.84†
Quality of sleep (5)		3.8	4.2	3.6	4.2	3.8	4.2	6.74‡
'Psychosomatic complaints' (4)		0.57	0.31	0.54	0.34	0.57	0.36	7.83‡
HAD Anxiety (21)		5.5	3.1	5.6	3.5	5.4	3.3	10.64‡
HAD Depression (21)		2.6	1.9	3.1	2.6	3.5	2.3	1.93

*df = 2, 86–91; df, degrees of freedom.
§$P < 0.001$, ‡$P < 0.01$, †$P < 0.05$
Higher means indicate more problems except for 'quality of sleep'.

test) revealed no significant gender differences at any of the points of assessment.

There were significant sex differences on five of the seven variables (Table 4). Women scored higher than men, indicating higher levels of problems. Men scored higher on 'quality of sleep'.

The proportions of women and men scoring above the cut-off point on the HAD subscales are presented in Table 3. The only significant difference was that a higher proportion of women than men scored above the cut-off point on the depression subscale at the third assessment (Chi-squared; 4.24, df = 1, $P < 0.05$).

A total of 6 women at the first assessment, 4 at the second and 8 at the third assessment scored above the cut-off point for the combined HAD scale. Corresponding figures for men were 2, 3 and 0.

Psychological and psychosomatic responses at the first visit—patients free from recurrence versus patients with recurrence after 2 years

Only patients with melanomas > 0.8 mm were included in this analysis. Psychological and psychosomatic responses at the first visit among patients free from recurrence 2 years later (*n* = 38) were compared with responses from patients who had died from melanoma, were diagnosed with multiple melanomas or had recurrence or disseminated disease (*n* = 22). There were significantly more women, 22 (58%), than men, 16 (42%), among

those free from recurrence whereas the reverse was true among those in the recurrence group, 4 women (18%) and 18 men (82%; chi-squared = 8.9, df = 1, $P < 0.01$). There was also a significant difference in tumour thickness ($t = 3.02$, df = 58, $P < 0.01$) between the disease free group (mean 1.76 mm) and the recurrent group (2.65 mm).

Those free from recurrence within 2 years scored significantly higher ($t = 2.06$, df = 58, $P < 0.05$) on the HAD anxiety subscale at the first visit (mean 5.18) than those who were not (3.05). There were no group differences in the proportions scoring above the cut-off point on any of the HAD-subscales. Two of the recurrent patients (9%) scored above the cut-off point on the HAD anxiety subscale and one on the depression subscale (5%). No differences were found between the two groups on any of the other psychological or psychosomatic variables.

In view of the fact that women tend to show higher anxiety scores than men, the higher scores on the HAD anxiety subscale among those free from recurrence is not surprising. However, the range of anxiety scores for the 4 women with recurrence was 1–3 (mean 2.0), which is low compared with that for women in the non-recurrence group (range: 0–17, mean 6.4). Only 22% of the women in the non-recurrence group scored in the 0–3 range.

DISCUSSION

Melanoma patients with tumours > 0.8 mm have a less favourable prognosis than those with tumours ≤ 0.8 mm. In

addition, they undergo substantial surgical procedures, often with skin grafting and are requested to visit the oncology clinic every third month for 5 years for follow-up. Patients with tumours ≤ 0.8 mm are discharged after a second follow-up 6 months after the first visit. They are instructed about self-examination and are told to consider themselves as healthy. Positive information and quick discharge could convey reassurance of health resulting in lower anxiety. Higher levels of psychosomatic and psychological problems were therefore expected in the first group. However, overall, patients with a more unfavourable prognosis subjected to regular medical procedures did not differ from those with a more favourable prognosis, except for sleeping problems. With this exception, regular follow-ups did not have negative psychological or psychosomatic effects. On the contrary, it seems that regular follow-ups might help patients to cope with the risk of recurrence. Many patients expressed a relief in being continuously checked. In addition, information is provided during follow-ups and the patients know where to direct questions regarding the disease.

The extent of sleep disturbances in patients with tumours ≤ 0.8 mm (mean 4.4–4.8) corresponds to values found in our previous studies of participants in screening for malignant melanoma, using the same questionnaire [13, 14]. In these studies, means were 4.3 in a group with hereditary risk for melanoma and 5.2 in a group attending public screening. The higher means on sleeping problems for patients with tumours > 0.8 mm (means 7.2–7.7) could be due to the more extensive scars after surgery, since skin grafting is often performed. Sleep disturbances might also be a response to distress related to the disease.

Since the HAD scale reflects anxiety and depressive symptoms experienced during the past week, it cannot be excluded that episodes of distress may have occurred before the first assessment or between assessments. The HAD means were higher when measured after plastic surgery in a study of melanoma patients, Stage I [22], indicating higher levels of problems immediately after surgery. Levels of anxiety and depressive symptoms in that study decreased during the 2–3 months between discharge from plastic surgery to their first visit at Radiumhemmet and levels comparable with those in the present study were demonstrated.

The increase of depressive symptoms between the first two assessments suggests that further study of the development of depressive symptoms related to a cancer diagnosis is warranted. Means were, however, relatively low compared with those found in a Swedish study of lung cancer patients [23], and in patients with disseminated melanoma [24]. The HAD items accounting for the increases in concern were the ability to feel cheerful, looking forward with enjoyment to things and loss of interest in appearance. In a longitudinal study of psychological adaption among cancer patients, many reported that the immediate distress of a cancer diagnosis had diminished 1 year after diagnosis, but worries about recurrence still remained [25]. In the present study, the reported interest in appearance at the first visit was very high, resulting in low scores on this item on the depression subscale, which could be an effect of the interview setting, the first visit before the medical examination. Most people seem to dress up when visiting doctors. In the mailed questionnaires, the interest in appearance decreased and higher scores on this item were obtained at the second and third assessments. We consider these levels to be more in the normal range compared with the low level at the first visit since the former were comparable with the level found among individuals with hereditary risk [13].

The proportions of possible clinical cases are lower than the 47% meeting DSM-III criteria for psychiatric disorder found in a study of the prevalence of psychiatric disorders among cancer patients [5]. In the present study, the low proportion scoring above the cut-off point of ≥ 8 described by the author may have included possible non-cases [19]. It has been suggested that the HAD cut-off points may vary between patient populations and that a substantial proportion of non-cases might be included when the cut-off point of ≥ 8 is used [21, 26]. In our opinion, there is therefore no reason to suspect that the proportions of patients with clinical levels of anxiety or depression in the present study were underestimated.

The increase of interest in nevi among those with tumours > 0.8 mm suggests an effect of the information about skin self-examination given at follow-ups. A corresponding effect of information has been reported previously in the screening of relatives of melanoma patients [13]. After 13 months, the interest in nevi was approximately the same in both groups of patients and at the same level as for participants in public screening [14]. As found in that study [14], women were significantly more interested in nevi than were men. The effect of information about self-examination is promising, considering the importance of knowledge and awareness of signs of melanoma in this group of patients who have an increased risk of developing multiple primary melanomas [27].

Considerable differences between men and women in psychological reactions were found with expected higher levels of problems in women independent of tumour thickness or frequency of follow-up visits. Consistent with previous findings, there were no differences in means on the HAD depression subscale between men and women, although a higher proportion of women scored above the cut-off point at the third assessment [13–15]. The higher levels of problems among women is interesting in view of the difference in prognosis paralleling differences in tumour thickness. Although the women had a better prognosis, the higher levels of problems among them suggest psychosocial interventions particularly for female melanoma patients at this stage of the disease.

The past decade has seen a focusing of interest on the interaction of psychological and biological variables in both the expression of melanoma and subsequent survival [8, 10, 18]. We therefore compared patients with later recurrence and those without recurrence in their reactions at the first visit. The lower level of anxiety at the first visit in patients whose melanoma later recurred suggests that anxiety level is not simply related to the prognosis of the disease. Patients with recurrence had significantly thicker primary tumours than those free from later recurrence. In addition, those with melanomas ≤ 0.8 mm showed more interest in their nevi at the first visit than did patients with tumours > 0.8 mm. Although the study was conducted *ex post facto*, we suggest that a tendency not to worry about signs of melanoma, or lack of knowledge about those signs might lead to delay in seeking treatment, which in turn results in thicker tumours and a worse prognosis. It is possible that knowledge of the importance of early detection, and higher perceived susceptibility to melanoma among patients with thin melanomas made them seek medical advice at an earlier stage. Higher levels of baseline affective distress were found to be predictive of lower rates of recurrence in a study of 68 melanoma patients [10]. It was concluded that baseline distress appeared to be a critical measure of awareness and behavioural motivation. Further studies of anxiety among recurrent female patients and

of the relationship between anxiety and delay in seeking medical advice are needed.

Information campaigns, based on the knowledge of risk factors and warnings against excessive sun exposure, are expected to reduce the future incidence of melanoma [1]. Knowledge of the disease and perceived susceptibility have been shown to be important variables in delay and health-related behaviour [28]. In view of the steeper increase of melanoma incidence in men than in women [29], new approaches for getting information and preventive procedures to men ought to be tested. Further studies of gender differences in psychological variables and their impact on health related behaviour are also warranted. Perhaps skin examination could be part of routine health examinations, together with information about skin self-examination and preventive measures. Risk groups could then be identified early and taught to be observant of changes in moles.

The application of parametric statistical methods in psychosocial research is controversial. In the present study, both parametric and non-parametric procedures have been used. The use of parametric statistics was based on the notion that there is a close connection between the sample size and the distribution of means calculated for many samples of subjects drawn from the same population. When sample sizes increase, the distribution of sample means can be approximated by the normal distribution, even though the distribution of scores in the normal population is not normal, as is the case for many variables in the behavioural sciences [30].

In conclusion, low levels of psychological and psychosomatic complaints were found in this group of melanoma patients. Women reported higher levels of problems and interest in nevi than did men, irrespective of a more favourable prognosis in women. Patients with recurrence within 2 years from diagnosis reported less anxiety at the first visit to the oncology clinic than did those without later recurrence.

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