



A Systematic Encounter with a Psycho-oncologist: Longitudinal Study in Women with Breast Cancer

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Authors' contributions

This work was carried out in collaboration between all authors. Authors DO, EZ and PT designed the study, performed the statistical analysis and wrote the protocol. Author DO wrote the first draft of the manuscript. Authors EZ, AVM and PT managed the analyses of the study. Author DO managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Introduction: Cancer patients usually will not ask for psychological support. To increase the proportion of patients who may benefit from psychological support, an encounter was implemented in our hospital, within days following the announcement of a breast cancer diagnosis. In the current study the interest and the efficiency of such an intervention on the distress across the stages of the oncological treatment was assessed.

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Methods: A longitudinal design with an intervention group and a control group that did not receive the visit of the psychologist was performed. Sociodemographic and disease information, distress, coping, and patients' needs were assessed on three occasions (diagnosis, treatment and end of treatment).

Results: A significant decrease in depression ($p < .05$), in needs of medical information ($p < .05$) and a mobilization of distractive coping ($p < .05$) was found only in the encounter group.

Conclusion: Current research indicates that an encounter with the psychologist can be helpful to cope with cancer. It also highlights the importance of coping from cancer patients. Hence, although the intervention of a psycho-oncologist is not always necessary, a systematic encounter is an adequate time where a possible psychological consultation is proposed.

Keywords: Psycho-oncology; distress; coping; needs; breast cancer; quasi-experiment.

1. INTRODUCTION

The WHO estimated that there were 14.1 million new cancer cases and 8.2 million deaths from cancer in 2012, compared respectively to 12.8 and 7.6 million in 2008 [1]. The prevalence estimates for 2012 showed that there were 32.6 million individuals still alive (over 15 years of age) in whom a cancer had been diagnosed during the previous five years. Due to the potentially lethal consequences of cancer, the impact of the announcement of this disease generates psychological difficulties that may be detrimental to patients. Hence, authors have indicated the importance of psychological interventions after cancer diagnosis [2] and have supported the effectiveness of such intervention [3].

However, the reasons supporting the importance of psychological interventions in cancer patients have not been studied in a detailed manner yet. Studies have evaluated the needs expressed by cancer patients in the period following the announcement of the diagnosis [4]. Libert and colleagues examined the needs of 980 cancer patients recruited in seven hospitals in Belgium. This study highlighted that the patients expressed the importance of meeting various needs related to different aspects of the specific situation after the announcement: Needs related to the physical consequences of cancer, to communication with the medical community, as well as needs related to psycho-social, sexual and marital dimensions [4].

In cancer patients, studies have also examined the importance of emotional distress. Thirty-five to forty-five percent of patients suffer from emotional distress [5] that can sometimes be important and even represent a real psychiatric disorder. This psychiatric disorder is most often the consequence of the cancer itself and can be qualified as an adjustment disorder. Derogatis

and colleagues have indeed shown, in a survey on the psychopathological status of 250 cancer patients after the diagnosis of cancer, that 47% expressed symptoms of a psychiatric disorder and that in two thirds of that subpopulation [6], the psychiatric symptoms were the consequence of the cancer and therefore their psychiatric disorder could be considered as an adjustment disorder [7]. The cancer diagnosis is also sometimes associated with the development of symptoms of anxiety and/or depression disorders. Major depression is observed in 10 to 15% of the cases and pathological anxiety in 10-30% of cancer patients [8], the frequency depending probably on the population studied. Of course, people who are confronted by the threat of death naturally present anxiety; it is generally considered as an appropriate response to such a threat [9]. However, when the symptoms of anxiety are too pronounced and interfere with the patient's therapeutic cancer care, the anxious reaction is considered as inappropriate [10].

In response to the announcement of the diagnosis of cancer, patients may use different coping strategies that focus either on the problem, or on the emotion [11]. Coping focused on cancer-related emotions have, most often, been shown to be inefficient, probably because people allocate too much attention to the disease and its uncontrollable, possibly lethal, outcome [12]. Conversely, strategies focused on cancer-related problems were shown to reduce distress significantly because such strategies support the possibility of a distraction, and because they help by providing patients with a sense of agency - by restoring hope or by helping them consider alternative responses to those proposed by the physicians [13].

One significant difficulty observed in cancer patients is the fact that they will not

spontaneously ask for psychological support by psychologists. Indeed, Libert and colleagues showed that the specialist physician and the family environment were often considered by patients as the best people to help them cope with their difficulties [4]. The need to meet a psychologist was expressed by only 14% of the population of patients after screening. Cancer patients, therefore, probably encounter some difficulty when considering consulting a psychologist, even when screening has revealed distress symptoms or needs that the patients could be helped to cope with [14].

To overcome the said difficulty, of cancer patients to access psychological care, we systematically planned encounters between the patients and the psychologist. In order to examine the benefits of these encounters, we conducted a controlled longitudinal study with breast cancer patients. Four hypotheses were tested. The first hypothesis was that patients who met the psychologist systematically would have fewer needs during oncological treatments. The second hypothesis was that, after 9 months, the patients who systematically met the psychologist would have less psychological distress than the patients who did not. The third hypothesis tested was that patients who systematically met the psychologist would develop new adaptive coping strategies. The fourth hypothesis was that the decrease in anxiety and depression would be related to the coping strategies of patients.

2. METHODS

2.1 Procedure and Respondents

Cancer patients hospitalized for breast surgery, in 3 Belgian hospitals, were invited to participate in our study between February 2011 and June 2012. A psychologist researcher introduced the study during their stay at the hospital. Participants were free to participate or refuse. All patients were French-speaking. Inclusion criteria were: being older than 18 years old; being aware of the cancer diagnosis; being able to complete the questionnaires by themselves. The two groups of this study were not randomized but distributed in two distinct stages: before and after the implementation of the project in the three clinics. Therefore, the feasibility of the study was initially assessed over 2 months, during which 26 patients were only asked to answer the questionnaires (see their description in the 'Measures' section below), without attending any encounters with the psychologist. These patients are referred to as the control group. All patients

recruited afterwards (N = 105) were systematically invited to meet with a psychologist and to complete the questionnaires.

Altogether, 131 patients were asked to answer questionnaires at the announcement of the cancer diagnosis (T1), 4 (T2) and 9 months later (T3), by post or internet (Limesurvey). One hundred and thirty-one patients participated in T1, 63 returned the questionnaire for T2, and 39 for T3. The ethical committees of the hospitals accepted the protocol and all patients signed an informed consent form.

2.2 Intervention

The encounter that was proposed to breast cancer patients had three main steps. The first step consisted of a mutual presentation "patient-psychologist". Psychological support is proposed by the multidisciplinary team and is integrated into the transdisciplinary care. The patient can also talk about his/her experience of the diagnosis of cancer. The second step involved an active listening to the patient's experience based on a semi-structured interview that allowed an assessment of the patient's current needs, distress, and coping. Finally, in the third step, the psychologist assessed the patient's expectations and the request for continued psychological support. Support was never imposed. The duration of the encounter lasted about one hour.

2.3 Measures

The questionnaire consisted of four parts.

Available: https://drive.google.com/file/d/0B9f6T7j_ySbtUXBWT0ZOSWRTYjQ/view?usp=sharing

2.3.1 Socio-demographic and disease questionnaire

Demographic characteristics were based on participants' self-reports and included gender, age, cultural background, marital status, family, education, and employment status. Disease and psychological characteristics were obtained from patients including personal history of cancer, cancer diagnosis, and psychological history.

2.3.2 Anxiety and depression scale

The *Hospital Anxiety and Depression Scale* (HADS) is a self-rating scale that was developed for use in general medical patients [15]. It consists of two subscales of 7 items each,

measuring anxiety and depression. Each item is scored between 0 and 3. Each sub-scale score is obtained by summing up the scores of the 7 items, hence giving a range from 0 to 21. Bowling (2004) proposed 3 levels of distress for each sub-scale: under 7 (no case), between 8 and 10 (suspected case) and more than 11 (complicated case) [16]. The questionnaire has been translated and validated in French [17], and its two-factor structure was confirmed in a cancer context. In the current sample, the Cronbach's α were .82 and .73 at T1, .74 and .79 at T2 and, .85 and .81 at T3 for Anxiety and Depression respectively.

2.3.3 Scale of needs for cancer patients

The *Cancer Rehabilitation Evaluation System – Short Form (CARES-SF)* gathers specific information concerning the day-to-day problems and rehabilitation needs of cancer patients [18]. The basic CARES-SF, containing 40 items, is closely related to the 139-item large version of the CARES ($r = .98$), and has acceptable internal consistency of summary scales ($\alpha = .85$ to $.61$) [18]. Each item is scored on a Likert scale between 0 (*not at all*) and 4 (*very much*). CARES-SF scores are obtained by the addition of the scores of each need item. This allows the calculation of a Global-CARES-SF score and specific-needs sub-factors scores representing respectively: physical, psychosocial, medical interaction, marital and sexual needs. In the current sample, the Cronbach's α were .80, .78, .62, .73, .74 respectively for physical, psychosocial, medical interaction, marital and sexual needs at T1, .79, .74, .64, .79, .80 at T2, and .86, .81, .70, .67, .78 at T3.

2.3.4 Coping strategies scale

The *Coping with Health Injuries and Problems (CHIP)* has been developed to assess coping with a variety of health problems and injuries [19]. The CHIP integrates four coping strategies: emotional preoccupation, palliative coping, instrumental coping, and distractive coping. The items of this scale were assessed on a 5-point Likert scale (from *Not at all* to *Extremely*). The CHIP presents good psychometric properties and that had been validated in a population of breast cancer women [20]. In the current sample, Cronbach's α were of .76, .52, .71, .62 for emotional preoccupation, distractive, palliative and instrumental coping respectively at T1; .78, .58, .66, .69 for emotional preoccupation,

distractive, palliative and instrumental coping respectively at T2; .81, .66, .75, .72 for emotional preoccupation, distractive, palliative and instrumental coping respectively at T3.

At T1, patients had to fill in all four questionnaires, at T2 and T3, all questionnaires except the socio-demographic one.

2.4 Statistical Analyses

Statistical analysis included descriptive statistics on sociodemographics, medical, and psychological data. Differences between the control and the systematic encounter group were tested by repeated measures ANOVA, the Chi-square test and t-test based on the hypotheses tested. Assumptions behind the use of parametric tests were tested. The effectiveness of the coping was tested using Pearson's correlations. Statistical analyses were performed using SPSS 22 software.

3. RESULTS

3.1 Characteristics of the Patient Sample

The mean age of responding patients was of 58.3 ± 12 years old. All women participating in this study were of European origin (Belgian or French). Seventy-two percent of the women were married or in a stable relationship and 78.1% had at least one child. Five point five percent had studied up until the end of primary school, 39.4% up to the end of secondary school, and 53.5% up to further education (university or otherwise). Finally, 38.7% of the women were active professionally, whereas 61.3% had temporarily stopped professional activity or were unemployed. The encounter and control groups were similar for age, marital status, presence/absence of children, educational level, and employment status.

Concerning medical aspects, 78.3% of patients had no previous history of cancer. Most breast cancers (69.6%) were detected through systematic screening. Regarding psychological aspects, 28.5% of women had had psychological problems before their cancer. Twelve percent of the patients had already undergone a psychological follow-up before this disease and 19.6% had already had a psychological consultation outside the hospital since the diagnosis. Both groups were similar for all these aspects.

3.2 Patients Who Met the Psychologist Systemically Would Have Fewer Needs and Distress at the End of Oncological Treatments

Results of patients' needs, distress and coping for patients that completed the two and the three times of the survey are indicated respectively in Tables 1 and 2.

3.2.1 Needs

A significant Time by Condition interaction was observed only for the needs for medical information. There was no difference between the groups at T1 but the control group of patients, who did not meet the psychologist, presented a significant increase in needs for medical information at T2, $F(1, 49) = 5.91, p = .019$, and T3, $F(2, 29) = 3.50, p = .043$. Concerning the sexual needs, only a time effect was observed indicating a significant increase in needs between T1 and T2, $F(1, 38) = 5.87, p = .02$ and again at T3, $F(2, 20) = 6.50, p = .007$. Concerning other needs, there was no Condition, or Time main effects, nor any significant interaction.

3.2.2 Distress

HADS distress levels were calculated both in a dimensional and categorical approach (using Bowling categories). The categorical approach showed that the proportion of complicated cases was much higher for anxiety (where they accounted for 41 to 28% of the population) as opposed to depression (where they accounted for 5 to 6% of the population).

At the dimensional level, a significant Time effect was noted for anxiety, indicating a noteworthy decrease at T2 only, $F(1, 55) = 3.87, p = .05$. There was neither Condition nor Time by Condition interaction effects, indicating that the initial encounter with a psychologist did not influence the development of anxiety symptoms.

Concerning the dimensional level of depression symptoms, a significant Time by Condition interaction was found. It revealed that depression symptoms had increased at T2, $F(1, 55) = 4.28, p = .043$ and T3, $F(2, 33) = 4.25, p = .023$ only for the control group of patients who did not meet the psychologist; whereas, it was stable at T2 and decreased at T3 for the group that had met the psychologist.

3.2.3 Coping

Results also showed that the control group, which had not met the psychologist, used progressively less distractive coping at T2, $F(1, 48) = 12.53, p = .001$ and at T3, $F(2, 28) = 3.75, p = .036$ than at T1, which was not the case for the group who had met the psychologist. The results for instrumental coping showed that patients in the control group tended to use less instrumental coping at T2, $F(1, 48) = 3.93, p = .076$ and at T3, $F(2, 27) = 2.81, p = .078$.

3.3 Relationships between Coping and Distress

Results showed a positive relation between palliative coping and a decrease in anxiety scores at T1, $r(92) = -.234, p = .025$ and T2, $r(60) = -.272, p = .035$, but not at T3, $r(39) = -.232, p = .156$. Another positive relation between distractive coping and a decrease in depression scores at T1, $r(97) = -.262, p = .009$, T2, $r(59) = -.396, p = .002$, and T3, $r(38) = -.338, p = .038$, was also observed.

Conversely, results showed a positive relation between emotional preoccupation coping and an increase in anxiety scores at T1, $r(99) = .65, p < .0001$, T2, $r(60) = .54, p < .0001$, and T3, $r(39) = .64, p < .0001$. There was also a positive relation between this strategy focused on emotion and an increase in depression scores at T1, $r(96) = .51, p < .0001$, T2, $r(60) = .27, p = .034$, and T3, $r(38) = .48, p = .002$.

4. DISCUSSION

This study aimed at assessing the differences in needs, distress and coping in breast cancer patients who did or did not meet a psycho-oncologist. It is noteworthy to stress that our data was obtained from a female sample with a hormonal cancer and the conclusion cannot be generalized to male populations and to non-hormonal cancer patients, which may present totally different emotional reactions and coping following a cancer diagnosis. In addition, the groups were not randomized but distributed in two distinct stages: before and after the implementation of the project in the three clinics. Three times of measurement were assessed: at the time of the diagnosis, during medical treatment and at the end of the cancer treatment.

Results showed that need for medical information increased during treatment for the

patients who had not met the psychologist whereas they were stable among patients who had met the psychologist. This observation aligns with previous findings on the impact of oncological diagnosis announcement, which induces an overwhelming emotional reaction that impedes correct processing of the information and an appropriate conversation with the oncologist [4,14]. The results suggest that the encounter with the psychologist following the announcement allowed the patient to obtain additional medical information, directly from the psychologist him/herself. Although no substitute for the physician, the psychologist may evaluate the patient's degree of understanding of the pathology, and help them seek complementary medical information if needed [21]. One of the roles of the encounter might be to support the collaboration of the patient with the multidisciplinary team. This encounter is therefore an opportunity to discuss the way the diagnosis was announced by the physician, and to improve the future doctor-patient relationship; a relationship which may have been negatively impacted by the announcement of the diagnosis [22]. Surprisingly, however, the encounter did not impact upon other needs. These results may appear in contradiction with the observations of Fallier and colleagues, which suggested that psycho-oncologists do play an important role in responding to psychosocial needs [23]. It's important to note that that study did not differentiate emotional distress from psychosocial needs. Bultz and Carlson who differentiated these two dimensions observed that the psychologist was helpful in supporting patients exposed to emotional distresses but failed to have an effect on the psychosocial needs that can naturally be regulated [5]. Finally, the sexual needs were not influenced by the encounter, which is consistent with the observation that sexual issues are only raised within the intimacy of their relationship [4]. However, we observed that sexual needs increased during treatments in the 2 groups studied, supporting that the medical treatment or the disease somehow refrained the expression of a normal sexuality [24].

In agreement with previous results, that showed that the announcement of cancer diagnosis leads to increased distress and high anxiety levels [25], we observed 41% of complicated cases of anxiety at the diagnosis announcement. Patients' anxiety decreased at 3 and 9 months after diagnosis, independently of the encounter, and in

keeping with the results of Barez and colleagues, which showed a spontaneous recovery for anxiety symptoms [26]. Depressive symptoms have also been observed after the announcement of cancer diagnosis in studies in psycho-oncology [25]. The experience of cancer may cause a loss of meaning and depressive symptoms in patients [27]. Nevertheless, only a minority of patients developed a major depression [23,28], which is consistent with our observation of about 5% of complicated cases according to the HADS. The impact of the encounter on depressive symptoms is however more complex: depressive symptoms first increased at 3 months and then improved at 9 months compared to controls. Meeting with a psychologist potentially allows patients to deal with specific distressful emotional information related to the cancer and its consequences, which may initially increase depression, but appropriate information treatment is also known to improve distress in the long run [29]. Moreover, the study confirmed that following a cancer diagnosis, coping strategies were related to decreases in distress [20]. The coping which focused on the problem and that which focused on avoidance of emotion were respectively related to lower scores of anxiety and depression, which is consistent with data obtained in previous studies [12]. Conversely, patients with higher scores of anxiety and depression presented with more emotion-focused coping [30], as will be commented on at the end of the discussion.

Overall, in the present study, patients who did not meet the psychologist tended to use less instrumental coping, i.e. strategies focusing on the resolution of the problem, that consist of a request for help and/or information on the disease at 3 and 9 months while participants who encountered the psychologist had similar scores for instrumental coping during and after treatment. This suggests that the encounter with the psychologist may cause the mobilization of instrumental coping, such as a request for help or for medical information that they possibly did not obtain or could not treat cognitively at the time of the diagnosis announcement. This result is consistent with Jadoulle and colleagues, who observed a negative correlation between instrumental coping and medical information needs in a similar population of breast cancer patients [20]. The results on distractive coping, a form of strategy focused on emotional avoidance, were similar. Distractive coping is a form of

Table 1. Differences between the encounter and the control group for patients that completed the first 2 times of measurements

Variables	Measurements	Conditions		Time	Effects	
		Encounter <i>M (SD)</i>	Control <i>M (SD)</i>		Condition	Interaction
Needs						
Physical	At diagnosis	9.00 ^a (6.11)	15.33 ^a (14.59)	.00	2.73†	.93
	After 3 months	10.82 ^a (6.43)	13.33 ^a (8.54)			
Social	At diagnosis	12.56 ^a (6.61)	16.16 ^a (10.55)	.62	.64	.69
	After 3 months	12.62 ^a (7.61)	14.00 ^a (9.20)			
Medical interaction	At diagnosis	1.85 ^a (2.80)	1.45 ^a (2.97)	3.99*	1.5	5.91**
	After 3 months	1.60 ^a (2.39)	4.00 ^b (5.51)			
Marital	At diagnosis	2.93 ^a (3.11)	2.00 ^a (2.23)	2.96†	.45	.29
	After 3 months	3.58 ^a (3.79)	3.25 ^a (2.92)			
Sexual	At diagnosis	2.69 ^a (3.12)	1.00 ^a (1.15)	5.87**	.04	2.26
	After 3 months	3.33 ^a (3.04)	3.71 ^b (3.09)			
Distress						
Anxiety	At diagnosis	9.28 ^a (5.00)	9.81 ^a (4.85)	3.87*	.30	.11
	After 3 months	7.86 ^b (3.53)	8.81 ^a (4.81)			
Depression	At diagnosis	3.97 ^a (3.15)	2.91 ^a (2.39)	3.46†	.002	4.28*
	After 3 months	3.86 ^a (3.20)	5.00 ^b (3.35)			
Coping strategies						
Distractive	At diagnosis	26.29 ^a (4.92)	30.11 ^a (5.57)	5.58*	.27	12.53***
	After 3 months	27.26 ^a (5.41)	25.22 ^b (3.92)			
Palliative	At diagnosis	25.00 ^a (5.56)	25.12 ^a (7.54)	3.52†	.15	1.08
	After 3 months	27.61 ^b (5.39)	25.87 ^a (4.48)			
Instrumental	At diagnosis	32.66 ^a (5.47)	35.90 ^a (2.80)	1.17	1.28	3.93*
	After 3 months	33.33 ^a (5.41)	33.63 ^b (3.74)			
Emotional preoccupation	At diagnosis	24.36 ^a (7.71)	24.10 ^a (9.04)	.10	.02	.04
	After 3 months	24.81 ^a (7.12)	24.20 ^a (8.58)			

Note. Needs were assessed by the CARES-SF questionnaire (Coscarelli et al., 1991), Distress by the HADS (Zigmond & Snaith, 1983) and coping strategies by the CHIP (Endler et al., 1998). Fischer-tests of repeated measure ANOVA are presented for the 62 patients who completed both times of measurements.

† $p < .1$. * $p < .05$. ** $p < .01$

Table 2. Differences between the encounter and the control group for patients that completed the first 3 times of measurements

Variables	Measurements	Conditions		Time	Effects	
		Encounter	Control		Condition	Interaction
		<i>M (SD)</i>	<i>M (SD)</i>			
Needs						
Physical	At diagnosis	8.15 ^a (6.85)	15.33 ^a (14.59)	1.10	2.15	38
	After 3 months	10.05 ^a (7.42)	13.33 ^a (8.54)			
	After 9 months	8.21 ^a (6.92)	10.66 ^a (11.32)			
Social	At diagnosis	13.40 ^a (7.74)	17.60 ^a (11.12)	1.74	.09	1.87
	After 3 months	14.11 ^a (7.63)	15.40 ^a (9.55)			
	After 9 months	14.00 ^a (7.18)	19.80 ^a (13.10)			
Medical interaction	At diagnosis	2.17 ^a (3.39)	1.77 ^a (3.23)	.95	2.95†	3.50*
	After 3 months	1.26 ^a (1.83)	4.44 ^b (4.82)			
	After 9 months	1.69 ^a (2.67)	4.11 ^b (4.01)			
Marital	At diagnosis	3.00 ^a (2.48)	2.20 ^a (2.48)	2.30	.009	.89
	After 3 months	3.16 ^a (3.19)	3.80 ^a (2.89)			
	After 9 months	2.37 ^a (2.90)	2.80 ^a (3.19)			
Sexual	At diagnosis	2.23 ^a (2.77)	1.16 ^a (1.16)	6.50**	.004	1.92
	After 3 months	2.88 ^a (2.89)	4.33 ^b (2.87)			
	After 9 months	3.47 ^b (3.77)	3.33 ^b (3.72)			
Distress						
Anxiety	At diagnosis	9.74 ^a (5.45)	10.44 ^a (2.70)	1.88	1.11	1.29
	After 3 months	7.81 ^b (3.29)	9.55 ^a (3.44)			
	After 9 months	7.55 ^b (4.26)	10.44 ^a (3.44)			
Depression	At diagnosis	3.92 ^a (3.13)	3.00 ^a (2.35)	2.89†	1.24	4.25*
	After 3 months	4.07 ^a (2.99)	5.70 ^b (3.16)			
	After 9 months	3.07 ^b (2.52)	5.60 ^b (5.03)			

Variables	Measurements	Conditions		Time	Effects	
		Encounter <i>M (SD)</i>	Control <i>M (SD)</i>		Condition	Interaction
Coping strategies						
Distractive	At diagnosis	25.86 ^a (4.48)	29.37 ^a (5.47)	2.08	.23	3.75*
	After 3 months	26.52 ^a (6.04)	25.12 ^b (4.18)			
	After 9 months	26.73 ^a (5.82)	27.37 ^b (4.24)			
Palliative	At diagnosis	23.77 ^a (5.79)	23.85 ^a (7.17)	4.73*	.05	1.58
	After 3 months	26.05 ^b (5.56)	25.42 ^a (4.64)			
	After 9 months	26.16 ^b (6.27)	28.42 ^a (6.07)			
Coping strategies						
Instrumental	At diagnosis	32.23 ^a (6.40)	35.55 ^a (2.92)	1.56	.94	2.81†
	After 3 months	33.04 ^a (5.53)	32.88 ^b (3.62)			
	After 9 months	30.80 ^{ab} (6.11)	33.11 ^{ab} (3.91)			
Emotional preoccupation	At diagnosis	25.09 ^a (8.93)	23.87 ^a (9.04)	.19	.46	.08
	After 3 months	25.14 ^a (7.82)	24.75 ^a (9.51)			
	After 9 months	24.52 ^a (8.17)	24.00 ^a (8.76)			

Note. Needs were assessed by the CARES-SF questionnaire (Coscarelli et al., 1991), Distress by the HADS (Zigmond & Snaith, 1983) and coping strategies by the CHIP (Endler et al., 1998). Fischer-tests of repeated measure ANOVA are presented for the 39 patients who completed the three times of measurements.

† $p < .1$. * $p < .05$. ** $p < .01$.

avoidance with actions and cognitions aimed at avoiding preoccupation with health problems (e.g., thinking of pleasant moments). Our results indicated that the group of patients that did not meet the psychologist significantly developed less distractive coping at 3 and 9 months than patients who had met the psychologist. Distractive coping was related to lower levels of depression but not to anxiety. Therefore, our data is consistent with studies that highlight the importance of distraction, and in particular action, as a means to decrease depression, by distracting the attentional focus away from negative thoughts [31].

Results showed no other effect of the psychological encounter on coping. However, palliative coping, another form of problem-focused coping that involves a self-help response employed to alleviate the unpleasantness of the situation, by making oneself comfortable or changing the surroundings, was related to lower levels of anxiety at 3 months but not at 9 months. Our data confirmed the conclusions of Endler and colleagues who also observed an improvement in anxiety, shortly after the announcement of a cancer diagnosis, in subjects that utilized palliative coping [19].

The results showed that preoccupation coping were related to higher levels of anxiety and depression at 3 and 9 months. This observation may be interpreted in the following manner: symptoms of distress are likely to mobilize emotion-related strategies, but these strategies are not sufficiently efficient to abolish the symptomatology. In the case of depression, distractive coping appears more efficient, as shown previously by Dempster and colleagues [12].

5. CONCLUSION

Our study supports that an encounter with a psychologist after cancer diagnosis may be of value to help answer medical interaction needs, to support distractive and instrumental coping strategies and to decrease depression in patients. However, it is important to note that patients also have the ability to develop their own coping strategies with the disease. The encounter could be important in allowing the patients to become aware of their own coping and competences. The effective strategies spontaneously developed by patients means that, for a large proportion of them, one

encounter is sufficient during cancer treatment. Conversely, the detection of an associated psychopathological disorder during the encounter would indicate that psychological support is necessary, particularly in patients who present depressive symptoms. To better assess the value of this meeting, further studies conducted with men and women with different cancers should be conducted. In this way, we could more readily evaluate how to best support the psychological difficulties faced by cancer patients.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C, et al. GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC Cancer Base No. 11; 2013. Available:http://globocan.iarc.fr/Pages/factsheets_population.aspx (Accessed 10 February 2013)
2. de la Torre-Luque A, Gambará H, López E, Cruzado JA. Psychological treatments to improve quality of life in cancer contexts: A meta-analysis. *Int J Clin Health Psychol.* 2016;16:211-219. DOI: 10.1016/j.ijchp.2015.07.005
3. Goerling U, Jaeger C, Walz A, Stickel A, Mangler M, van der Meer E. The efficacy of short-term psycho-oncological interventions for women with gynaecological cancer: A randomized study. *Oncology.* 2014;87(2):114-124. DOI: 10.1159/000362818
4. Libert Y, Merckaert I, Etienne AM, Farvacques C, Lienard A, Messin J, et al. Les besoins psychosociaux et le soutien apporté aux patients atteints d'un cancer: Une étude nationale belge. *Oncologie.* 2006;8(5):1-12. DOI: 10.1007/s10269-006-0439-6
5. Bultz BD, Carlson LE. A commentary on effects of screening for psychological distress on patient outcomes in cancer: A systematic review. *J Psychosom Res.* 2013;75(1):18-19. DOI: 10.1016/j.jpsychores.2013.04.002
6. Derogatis LR, Morrow GR, Fetting J, Penman D, Piasetsky S, Schmale AM, et al. The prevalence of psychiatric disorders

- among cancer patients. *JAMA*. 1983; 249(6):751-757.
DOI: 10.1001/jama.1983.03330300035030
7. American Psychology Association. *DSM-IV-TR: Manuel diagnostique et statistique de troubles mentaux*. Paris: Masson; 2003.
 8. Stafford L, Komiti A, Bousman C, Judd F, Gibson P, Mann GB, et al. Predictors of depression and anxiety symptom trajectories in the 24 months following diagnosis of breast or gynaecologic cancer. *Breast*. 2016;26:100-105.
DOI: 10.1016/j.breast.2016.01.008
PMID: 27017248
 9. Krause S, Rydall A, Hales S, Rodin G, Lo C. Initial validation of the death and dying distress scale for the assessment of death anxiety in patients with advanced cancer. *J Pain Symptom Manage*. 2015;49(1):126-134.
DOI: 10.1016/j.jpainsymman.2014.04.012
PMID: 24878066
 10. Knapp K, Cooper B, Koettters T, Cataldo J, Dhruva A, Paul SM, et al. Trajectories and predictors of symptom occurrence, severity and distress in prostate cancer patients undergoing radiation therapy. *J Pain Symptom Manage*. 2012;44(4):486-507.
DOI:10.1016/J.JPAINSYMMAN.2011.10.020
PMCID: PMC3463773
 11. Lazarus RS, Folkman S. *Stress, appraisal, and coping*. New York: Springer Edition; 1984.
 12. Dempster M, Howell D, McCorry NK. Illness perceptions and coping in physical health conditions: A meta-analysis. *J Psychosom Res*. 2015;795(6) :506-513.
DOI: 10.1016/j.jpsychores.2015.10.006
 13. Spiegel D, Butler LD, Giese-Davis J, Koopman C, Miller E, DiMiceli S, et al. Effects of supportive-expressive group therapy on survival of patients with metastatic breast cancer: A randomized prospective trial. *Cancer*. 2007;110(5): 1130-1138.
DOI: 10.1002/cncr.22890
 14. Merckaert I, Libert Y, Messin S, Milani M, Slachmuylder JL, Razavi D. Cancer patients' desire for psychological support: prevalence and implications for screening patients' psychological needs. *Psychooncology*. 2010;19(2):141-149.
DOI: 10.1002/pon.1568
 15. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavia*. 1983;67(6):361-370.
DOI : 10.1111/j.1600-0447.1983.tb09716.x
 16. Bowling A. *Measuring health: A review of quality of life, measuring scales*. England: Buckingham; 2004.
 17. Razavi D, Delvaux N, Farvacques C. Validation de la version française du HADS dans une population de patients cancéreux hospitalisés. *Revue de Psychologie Appliquée*. 1989;39:295-308.
 18. Coscarelli AS, Ganz PA, Heinrich RL. Cancer rehabilitation evaluation system - short form. A Cancer specific rehabilitation and quality of life instrument. *Cancer*. 1991;68(6):1406-1413.
DOI:10.1002/1097-0142(19910915)68:6<1406::aid-cncr2820680638>3.0.co;2-2
 19. Endler NS, Courbasson CM, Fillion L. Coping with cancer: The evidence for the temporal stability of the French-Canadian version of the Coping with Health Injuries and Problems (CHIP). *Personality and Individual Differences*. 1998;25(4):711-717.
DOI: 10.1016/s0191-8869(98)00095-6
 20. Jadoulle V, Ogez D, Rokbani L, Maccioni J, Lories G, Bruchon-Schweitzer M, et al. Coping and adapting to breast cancer: A six-month prospective study. *Bulletin du Cancer*. 2006;93:67-72.
 21. Grassi L, Riba M. *Clinical psychoncology: An international perspective*. Oxford: Wiley-Blackwell; 2012.
 22. Ogez D, Colmant M, Zech E, de Timary P. Quand le psychologue rencontre systématiquement le patient: Quelle place pour une demande personnelle ? Expérience auprès de patients atteints d'un cancer. *Psycho-oncologie*. 2014; 8(2):117-122.
DOI: 10.1007/s11839-014-0465-3
 23. Faller H, Weis J, Koch U, Brahler E, Harter M, Keller M, et al. Perceived need for psychosocial support depending on emotional distress and mental comorbidity in men and women with cancer. *J Psychosom Res*. 2016;81:24-30.
DOI: 10.1016/j.jpsychores.2015.12.004
PMID: 26800635
 24. Fobair P, Stewart SL, Chang S, D'Onofrio C, Banks PJ, Bloom JR. Body image and sexual problems in young women with

- breast cancer. *Psychooncology*. 2006; 15(7):579-594.
DOI: 10.1002/pon.991
25. Blázquez MH, Cruzado JA. A longitudinal study on anxiety, depressive and adjustment disorder, suicide ideation and symptoms of emotional distress in patients with cancer undergoing radiotherapy. *Journal of Psychosomatic Research*. 2016; 87:14-21.
DOI: 10.1016/j.jpsychores.2016.05.010
PMID: 27411747
26. Barez M, Blasco T, Fernandez-Castro J, Viladrich C. A structural model of the relationships between perceived control and adaptation to illness in women with breast cancer. *J Psychos Oncol*. 2007; 25(1):21-43.
DOI: 10.1300/J077v25n01_02
27. Marchioro G, Azzarello G, Checchin F, Perale M, Segati R, Sampognaro E, et al. The impact of a psychological intervention on quality of life in non-metastatic breast cancer. *Europ J Cancer*. 1996;32(9):1612-1615.
DOI: 10.1016/0959-8049(96)00134-7
28. Spiegel D, Giese-Davis J. Depression and cancer mechanisms and disease progression. *Biological Psychiatry*. 2003; 54(3):269-282.
DOI: 10.1016/s0006-3223(03)00566-3
29. De Timary P, Heenen-Wolff S, Philippot P. The question of "representation" in the psychoanalytical and cognitive-behavioral approaches. Some theoretical aspects and therapy considerations. *Frontiers in Psychology*. 2011;2:1-8.
DOI: 10.3389/fpsyg.2011.00071
30. Razavi D, Delvaux N. *Précis de psycho-oncologie de l'adulte*. Paris: Elsevier; 2008.
31. Nolen-Hoeksema S, Morrow J. Effects of rumination and distraction on naturally occurring depressed mood. *Cognition and Emotion*. 1993 ;7(6) :561-570.
DOI: 10.1080/02699939308409206

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