Original Article

### On Being a Child of an Ill Parent

# A Rorschach Investigation of Adaptation to Parental Cancer Compared to Other Illnesses

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Abstract. Cancer in a parent has a devastating effect on the psychological well-being of the children. In this comparative study, we examined the hypothesis that children who have a parent suffering from cancer experience greater difficulty in terms of psychological adaptation than children with a parent suffering from another chronic pathology. A group of 52 children of parents with cancer was compared with a group of 50 children whose parents were suffering from another chronic disease (respiratory insufficiency, diabetes) (mean age =  $12.3 \pm 2.8$  years, 46 boys, 56 girls). All the children took part in a Rorschach Comprehensive System examination. Results showed that the children who had a parent suffering from cancer exhibited a higher number of signs of anxiety and depressive affects as well as reduced self-esteem. These difficulties were more pronounced in the case of girls and when it was the mother who was suffering from cancer. These results confirm the data reported in the literature in a large sample and using an indirect performancebased evaluation method. They emphasize the need to develop specific interventions which take account of the gender of the child and the ill parent.

Keywords: children, adolescents, cancer, psychological adaptation, Rorschach

#### Introduction

In recent years, a large number of clinical studies have focused on the close relatives of patients suffering from physical pathologies, in particular in the field of cancer. The role of close relatives has been described with increasing frequency and its importance emphasized (Deeken, Taylor, Mangan, Yabroff, Ingham, 2003; Glajchen, 2004), while the distress

suffered by these individuals has also been highlighted (Ballenger et al., 2001; Vanderwerker, Laff, Kadan-Lottick, McColl, Prigerson, 2005). The attention paid to children with parents suffering from cancer is also growing, and the types of care available for these children are becoming more diversified. One of the strategies used to investigate adaptation in such children has been to assess the presence of mental health problems in this population. In children aged 9 to 11 years, studies have revealed normal frequencies or levels of emotional problems or social skills (Hoke, 2001) and externalized disorders (Hoke, 2001; Zahlis, 2001). A recent study showed that more emotional problems were reported for latency-aged sons and adolescents daughters (Visser et al., 2005). In a longitudinal perspective (Visser et al., 2007), researchers found that most children of parents with cancer have a level of difficulty comparable to the control group during the first year after the parent's diagnosis and reported problems decreased with time. But children who initially had problems remained vulnerable. Another strategy, which we adopt in this study, is to use a psychological assessment to show the existence of subclinical characteristics, for example, indicators of emotional distress. The aim of this research was to reveal the specific nature of psychological functioning in children with a parent suffering from cancer.

A recent comparative study examined the adaptative abilities of children and adolescents with a parent suffering from cancer (Seigneur, Levacher, Consoli, Andrieu, & Duboust, 2004). The authors compared 20 children and adolescents aged between 8 and 18 years with a parent suffering from cancer, with 33 children and adolescents with a parent with diabetes or who had had a kidney transplant. The evaluation was performed on the basis of three self-questionnaires and the judgments made by the parents about depression, anxiety, and self-esteem. After adjusting the groups for the parents' academic level, the authors observed that the children with a parent suffering from cancer were more anxious, reported more depressive affects (more frequent and more intense), and had lower self-esteem. However, another study conducted among 35 children did not show any such differences (Hoke, 2001).

Other studies (Hoke, 2001; Seigneur et al., 2004; Visser et al., 2005, 2007; Zahlis, 2001) revealed anxio-depressive signs and poor self-esteem in the children of parents suffering from cancer compared to control groups, although these signs had not taken the form of psychopathological disorders. Most studies used self-administered questionnaires and, in some cases, are based on the behavioral descriptions provided by the parents. None of them used a performance-based task such as the Ror-

schach Comprehensive System. Most studies used limited samples ( $N \le 25$ ), and some of these are contradictory (Hoke, 2001; Seigneur et al., 2004; Visser et al., 2007). This simply emphasizes the need to conduct new studies using indirect evaluations among larger samples.

The present study tests the hypothesis that children and adolescents with a parent suffering from cancer exhibit more signs of anxiety (increasing of Sum Y, m, D score), depressive affects (increasing of MOR, Vista, Sum C', DEPI index), and lower self-esteem (low level of EGO) than children and adolescents with a parent suffering from another chronic pathology. Given the observations made in the research discussed above (Hoke, 2001; Seigneur et al., 2004; Visser et al., 2005, 2007; Zahlis, 2001), we also expect girls to exhibit more negative affects (MOR, Vista, Sum C', DEPI) than boys, and the negative or morbid characteristics should be most pronounced when it is the mother rather than the father who is ill. We also expected more preoccupations about health and body (An and Xy) in the group of children of a parent suffering from cancer because of the impairment of quality of life due to hard treatments, and that the quality of social relations of these children is more impaired by the presence of the cancer and the mood impairment (COP, Isolate/R). We use the well-known performance-based task usually included in psychological assessment, namely, the Rorschach Comprehensive System (Exner, 2003).

In that normal psychological self-report instruments rely on the patient to make sense of all the items and convey information to the examiner accurately and openly, such performance-based test require a behavioral demonstration of personal characteristics, rather than a simple description. In this way it is able to obtain information that the patient may not be conscious of. Therefore such investigation procedures may be particularly relevant in delicate situations such as the situation of the child with an ill parent.

#### **Methods**

#### **Participants**

We recruited 102 children of ill patients who were being monitored at the Institut Curie (Paris, France) and the CMC Foch (Centre Médico-Chirurgical Foch, Suresnes, France) for metastatic cancer (N = 52), and at the CMC Foch for diabetes (N = 28) or chronic respiratory insufficien-

Table 1. Definition of the mentioned variables (after Exner, 2003)

Variable	Type of response	Interpretation
SumV	Shading-based responses including transparency or perspective effects	Self-disgust, shame, emotional distress, guilt
MOR	Morbid content: destroyed object, death, degradation or attribution of a dysphoric character to the object	
SumC'	Total achromatic colors (black, white, gray)	Emotional distress, suppression of painful affects
DEPI	Number of positive criteria in the Depression index	Intensity of depressive affects. Higher probability of subclinical or clinical depression
SumY	Nonspecified shading-based responses	State of stress, anxiety and presence of affects accompanying a state of stress. Feeling of uncontrollability.
M	Object movement	Acute or chronic stress
Score D	Standard score expressing the difference between the subject's available resources and the pressures felt	Tolerance of stress, subject's ability to maintain control
An + Xy	Total anatomical and radiographic contents	Preoccupations concerning body, health or illness
EGO	Egocentricity index computed by adding reflection and pair responses	Quality and level of self-esteem
Blends/R	Ratio of responses containing multiple determinants (shape, color, movement etc.) and the total number of responses	Level of development of responses, degree of complexity or tendency to simplification
Ma < Mp	Comparison of active and passive human responses	When there are more passive move- ments, expression of a tendency to take refuge in dreams and fantasy. "Snow White syndrome" versus active coping
COP	Benevolent interaction, cooperation, mutual help	Ability to establish relations, form positive relations
Isolate/R	Isolation index composed of nature or botanic contents	Isolation or withdrawal, defensive retreated
R	Number of responses	Productivity on the Rorschach
EB	Ratio of human movements (M) by the weighted sum of color-based responses (WSumC)	M > WSumC = the style is labeled as Introversive. Problem-solving relies on thoughts and internal world. M < WSumC = labeled as Extratensive. Problem-solving relies on affects and interaction with the environment. M $\approx$ WSumC = no dominant style. Labeled as Ambitent.

Variable	Type of response	Interpretation
Es	Sum of all negative affects markers (e.g., SumC', black, gray or white) and cognitive stimulation markers (e.g., m, object movement)	Indicative of the level of pressure felt
EA	Sum of weighted color and human movement responses	- A marker of the amount personal resources
Lambda	The ratio of responses exclusively based on form to other responses	Indicative of a tendency to simplify the task. When Lambda .99, this tendency may refer to an "avoiding style."

cy (N = 22). The first group therefore consisted of children with a parent suffering from cancer and undergoing chemotherapy following a metastatic development, while the second and third groups consisted of children with a parent suffering from a chronic pathology requiring regular treatment (diabetes or a chronic respiratory insufficiency). These last two groups constituted the control population in our study. Table 2 indicates the main characteristics of the sample. The children were recruited consecutively from June 2000 to December 2001 after the ill parent had seen a doctor who invited the ill parent and his or her spouse to meet the researcher responsible for the study. They were then seen again for a second interview together with their child to whom the nature of the research was then presented. The criteria for inclusion were for the *clinical group* (1) children aged 8 to 18 years, (2) one parent currently being treated for metastatic cancer. For the *control group* (1) children aged 8 to 18 years, (2) either insulin-dependent diabetes in one of the parents or chronic respiratory insufficiency in one of the parents. The criteria for noninclusion were presence of a psychiatric pathology or another chronic physical pathology in the parents or a member of the sibling group; the transition of the chronic disease at risk of reaching a palliative phase; or children belonging to a single-parent family.

We proposed this research to 128 families, 7 of which refused to participate. We subsequently removed 6 children from the study because they were receiving special psychological support (once a week for more than 3 months). A total of 110 children therefore took part in the research. However, 8 Rorschach protocols proved to be invalid (total number of insufficient responses, R < 13): three protocols in the group of children with one of the parents suffering from cancer, two in the group of children with one of the parents suffering of chronic respiratory insufficiency, and three in the group of children with one of the parents suffering from diabetes. The sample considered therefore consists of 102 children.

Table 2. Sample description

	-	-							
		Gr. 1 Pare	Gr. 1 Parent with cancer	Gr. 2 Parent with another disease	vith another d	isease		Total	
		Cancer		Diabetes		Respiratory	Respiratory insufficiency		
		N = 52		N = 28		N = 22		N = 102	
		$M \pm SD$	Frequency	$M \pm SD$	Frequency	$M \pm SD$	Frequency	$M \pm SD$	Frequency
	Age of child	$12.5\pm2.9$	•	$11.8\pm2.4$		$12.7 \pm 3$		$12.3\pm2.8$	
	Gender of child								
	Boy		24		12		10		46
	Girl		28		16		12		56
	SPC								
	Employee		12		7		4		23
0	Executive		10		9		ıΩ		21
	Teacher		14		7		9		27
	Unemployed		7		જ		95		13
	Age of parent	$43.2\pm3.6$	,	$42.8\pm3.9$		$43.5\pm3.7$		$43.1\pm3.7$	
	III parent								
	Father		21		13		10		44
	Mother		22		6		∞		39
	Sibling groups								
	2 children		5		2		1		8
	3 children		2		61				4
	4 children						1		1

	Gr. 1 Pare	Gr. 1 Parent with cancer	Gr. 2 Parent	Gr. 2 Parent with another disease	lisease		Total	
	Cancer		Diabetes		Respiratory	Respiratory insufficiency		
	N = 52		N = 28		N = 22		N = 102	
	$M \pm SD$	Frequency	$M \pm SD$	Frequency	$M \pm SD$	Frequency	$M \pm SD$	Frequency
Diagnosis:								
Breast cancer		17						
Ovarian cancer		11						
Bone cancer		18						
Lung cancer		9						
Diabetes type 1				28				
Asthma						14		
Pneumothorax						2		
Tobacco complications						9		
Treatments								
Chemotherapy		52						
Insulin				28				
Corticoids						14		
Aerosols						18		
Physiotherapy						18		
Time since diagnosis								
1-3 years		28		14		12		54
4–5 years		15		8		9		29

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The following reasons were given for refusal to participate: The parents considered the distance to be traveled to return to the hospital to be too great (2 families), the parents did not want their child to come to the hospital (4 families), the children did not want to participate in the study (1 family). As Table 1 indicates, the groups were similar in terms of time since initial diagnosis, the age of the ill parent, and the distribution of boys and girls. Similarly, the socioeconomic level of the parents was comparable in each group. The distribution of boys and girls was equivalent in all the groups as was the distribution of the sex of the ill parent (all p values > .50). In the group in which the parent was suffering from cancer, 16 children belonged to the same sibling group, there being two 3-child families and five 2-child families. In the group in which the parent was suffering from diabetes, 10 children belonged to the same sibling group, there being two 3-child and two 2-child families. Finally, in the group in which the parent was suffering from a chronic respiratory insufficiency, 6 children belonged to the same sibling group, there being one 4-child family and one 2-child family.

The child's agreement was obtained for prior to participation in the study as was, in the case of minors, that of their parents. Parents and their children aged over 11 years signed an informed consent form. The study design (methods, instruments, procedure) was approved by the ethics committees of the institutions in question, and this study received the approval of the CNIL (Comité National Informatique et Liberté), who guaranteed the respect of the persons involved in research procedure and the data management.

#### **Instruments and Procedure**

To measure anxio-depressive affects and self-esteem, we used the Rorschach Comprehensive System (Exner, 2003). Among other things, it provides precise data concerning emotions and emotional disturbances (Andronikof & Réveillère, 2004), and it has been used in the past on numerous occasions in recent studies of diabetes, digestive diseases, obesity, and heart disease (Elfhag, Rossner, Carlsson, & Barkeling, 2003; Porcelli & Meyer, 2002; Sultan & Porcelli, 2006; Sultan, Bungener, & Andronikof, 2002; Sultan, Jebrane, & Hartemann-Heurtier, 2002). The data were gathered by a clinical psychologist who had been appropriately trained in the use of the Rorschach Comprehensive System. Given the places of recruitment and the context of the investigation, the researcher was informed of each parent's

diagnosis. The co-scorer was blind to the hypotheses of the research and consequently about the parent's diagnosis.

We selected 10 variables we thought likely to account for our hypothesis on the basis of the interpretations provided by prominent authors (Exner, 2003; Weiner, 1998). These interpretations are based on thresholds that have been empirically validated in experimental and observational studies, most of which have been published in peer-reviewed journals (Chiccetti, 1994; Exner, 2002; Meyer et al., 2002).

Emotional distress and negative thoughts about the world and oneself were operationalized using the variables Vista (shading-vista), MOR (morbid content), SumC' (achromatic color), and DEPI (depression index); anxiety and affects accompanying stress by SumY (shading-diffusion) and m (object movement); pressure felt by the subject by the D score (tolerance of stress, control); physical preoccupations by the An + Xy contents (anatomy and radiography); self-esteem by the EGO index (reflection and pair responses).

We also examined two variables we thought capable of evaluating the quality of social relations likely to be impaired by the presence of the illness and the possible impairment of mood (COP, Isolate/R) as well as two variables that might reflect the defensive mechanisms implemented by children through a tendency toward simplification (Blends/R) or refuge in fantasy (Ma/Mp). Finally, the basic descriptive data were also examined: the number of responses R (an index of productivity on the Rorschach), the basic styles EB (indicative of the problem-solving modes), es (indicative of the level of pressure felt), EA (a marker of personal resources), and Lambda (indicative of a tendency to simplification). These variables were either used as frequencies, for example, number of responses determined by black, white, or gray in one protocol (SumC'); or as categories, when the frequency exceeded a prevalidated cutoff point (SumC' > 2).

We performed a study of the interrater reliability for the selected variables using the currently recommended methods (Meyer et al., 2002). We performed a study of the interrater reliability for the selected variables using the currently recommended methods (Meyer et al., 2002). 26 protocols (25%) were chosen at random and were rescored "blindly" by a second scorer. In the case of the quantitative variables, the intraclass correlation coefficients (single-factor ICC, precise agreement) were as follows: SumV (.95), MOR (.97), SumC' (.98), DEPI (.99), SumY (.96), m (.93), score D (.93), An + Xy (.90), EGO (.93), Ma (.95), Mp (.95), COP (.99), Isolate/R (.90). For the qualitative variables, the kappa agreement coefficients were as follows: SumV > 0 (1.00), MOR > 2 (1.00), SumC' > 2 (1.00), DEPI = 5 et

DEPI = 6 (1.00), SumY > 1 (1.00), score D < 0 (.92), score D < -1 (1.00), An + Xy > 1 (.77), EGO < .33 (1.00), EGO < .25 (.92), Blends/R < .25 (1.00), Ma < Mp (.92), COP = 0 (.92), Isolate/R < .25 (.92). Overall, these coefficients revealed an excellent level of interjudge reliability on the variables resulting from the Rorschach (Chiccetti, 1994; Meyer et al., 2002).

Frequencies were compared using  $\chi^2$ . Comparisons of means were performed using single- and two-factor ANOVAs and by adjusting results for the level of productivity since research has showed R could be a confounding factor (Sultan et al., 2004). The factors considered in the following analyses were (1) the type of pathology, (2) sex of the ill parent, (3) sex of the child.

#### Results

Our analysis focused on comparisons between the samples at our disposal. Although no normative data for French-speaking children are available yet, score levels were compared to existing adult norms (Exner, 2002; Sultan et al., 2004). First, we compared the two groups whose parents were not suffering from cancer (diabetes or respiratory insufficiency) using bivariate comparisons (Student's t, Fisher's F adjusted for productivity and  $\chi^2$ ) and found no differences in the characteristics evaluated by the Rorschach, whether measured quantitatively or qualitatively (all p values > .30). As a result, in the analyses below, we consider the controls to form a single, homogeneous group.

#### Comparison as a Function of Pathology

The psychological characteristics that interested us differed depending on whether the child's parent was suffering from cancer (n = 52) or from some other physical pathology (n = 50). These differences are described in Table 3. The children with a parent suffering from cancer had higher scores on the following variables: Lambda, es, EA, SumV, MOR, SumC', DEPI, SumY, m, Mp, and Isolate/R (see means and F-values in Table 3). The children with a parent suffering from cancer had lower scores on the following variables: R, Blends/R, and Ma. When the variables were considered in terms of thresholds (positive or negative indices), the results reported above were observed again (see Table 3).

	Group 1			Group 2			Normative	Group 1 vs Group 2	Group 2
	Parent wi	Parent with cancer $(n = 52)$	2)	Parent witl	Parent with other illness $(n = 50)$	(n = 50)	range		
	M	SD	Freq (%)	M	SD	Freq (%)	$M  ext{ or Freq } (\%)$	F	$\chi^2$
Lambda	1.40	0.50		1.18	.40		.3090	2.59	
Lambda > .99			39 (75%)			28 (56%)	20%-30%		3.28
R	21.29	3.01		25.94	4.56		17–28	37.13***	
Es	9.07	2.14		6.48	1.58		5.00-15.00	38.72***	
EA	6.35	2.6		4.66	2.21		5.00-12.00	8.53**	
EB:									
Extratensive		10 (19%)			15 (30%)	35%			
Ambiequal		28 (54%)			20 (40%)	30%		2.33	
Introversive		14 (27%)			15 (30%)	35%			
SumV	0.81	0.91		0.28	0.54		0-1	2.96**	
SumV > 0			27 (52%)			12 (24%)	20%		7.28**
MOR	3.33	1.5		1.70	1.05		0-2	32.97***	
MOR > 2			37 (71%)			15 (30%)	10%-25%		15.67***
SumC'	2.96	1.05		2.04	06.0		0-2	21.94***	
SumC' > 2			38 (73%)			19 (38%)	10%-20%	11.34***	
DEPI	4.94	1.38		3.88	1.57		0-4	8.68**	
$DEPI \ge 5$			35 (67%)			21 (42%)	17%-40%		5.61*
$DEPI \ge 6$			18 (35%)			7 (14%)	5%-17%		4.79*
SumY	2.06	0.87		1.36	0.98		0-1	6.45*	
SumY > 1			40 (77%)			24 (48%)	10%-30%		7.93**

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Variables	Group 1			Group 2			Normative	Group 1 vs Group 2	roup 2
	Parent with	Parent with cancer $(n = 52)$	52)	Parent with	Parent with other illness $(n = 50)$	i = 50)	range		
	M	SD	$\operatorname{Freq}(\%)$	M	SD	Freq (%)	M or Freq $(%)$	F	$\chi^2$
M	1.65	0.88		06.0	89.0		1–3	20.01***	
D score	98.0-	1.18		-0.72	0.97		-1 or 0	.81	
D < 0			33 (63%)			31 (62%)	15%-50%		00.
D < -1			15 (29%)			10 (20%)	4%-24%		.65
An + Xy	1.60	0.91		1.32	0.82		0-1	2.66	
An + Xy > 1			28 (54%)			19 (38%)	10%-20%		1.99
EGO	0.26	90.0		0.29	0.05		.3344	2.92	
EGO < .33			43 (83%)			40 (80%)	20%-50%		.01
EGO < .25			30 (58%)			15 (30%)	NA		6.85
Blends/R	0.23	0.03		0.26	0.04		.1035	11.26**	
Blends/R $<$ .25			41 (79%)			22 (44%)	40%		11.67**
Ма	0.94	0.57		1.92	1.24		1-4	25.01***	
Mp	1.71	0.89		0.58	0.76		1-4	39.83***	
Ma < Mp			35 (67%)			7 (14%)	10%-20%		27.75***
COP	0.35	0.62		0.38	0.67		1-4	.76	
COP = 0			38 (73%)			36 (72%)	15%-30%		00.
Isolate/R	0.26	0.03		0.22	0.04		.1030	22.48***	

Note. \*p < .05, \*\*p < .01, \*\*\*p < .001. Comparisons are adjusted for productivity (number of response given at the Rorschach). NA = Data not available. Normative ranges and values are derived from normative samples collected recently by Exner (2002) and Sultan et al. (2004).

 $_{
m AA}$ 

36 (72%)

23 (44%)

Isolate/R < .25

In the children with a parent suffering from cancer, we observed more perceived pressure (es) but no discrepancies in the score expressing the difference between the subject's available resources and the pressures felt (D score), thus testifying to good control abilities - an observation that may be due in part to the fact that these children had a higher level of available resources (EA). The children with a parent suffering from cancer exhibited significantly more depressive affects as expressed by the high level of the variables reflecting emotional distress (higher SumV score and more children with a SumV > 0) and negative thoughts about oneself and the world (higher MOR and SumC' scores and more children with MOR2 and Sum C' > 2). The DEPI depression index was also significantly higher in the group of children with a parent suffering from cancer, and there were more children with a DEPI = 5 or 6. Finally, the children with a parent suffering from cancer did not generally have lower self-esteem than the children with a parent suffering from another pathology. However, if we consider an extreme category (EGO  $\leq$  .25), we find that this was more frequent in the cancer group, thus indicating more frequent impairments to self-esteem.

Our results therefore tend to support the hypothesis that children and adolescents who have a parent suffering from cancer exhibit broader-based anxiety, affects related to perceived stress (SumY, m, SumY > 1), more depressive affects (SumV, MOR, SumC', DEPI), and less self-esteem (EGO index) than children and adolescents with a parent suffering from some other physical pathology.

#### Role of the Sex of the Ill Parent

In the overall sample (including control group), the evaluated psychological characteristics differed depending on whether it was the mother (n=45) or the father (n=57) who was ill. Of the 14 Rorschach variables we examined, two variables scored higher when it was the mother who was ill: (1) self-disgust and shame (SumV), with a mean of .84 compared to .32 when the father was the sufferer (F=10.89, p < .01); (2) subclinical or clinical depression (DEPI index), with a mean of 5.02 positive criteria compared to 3.94 when it was the father who was ill (F=11.08, p < .01). The other differences were not significant.

If we focus on the children with a parent suffering from cancer (24 mothers compared to 28 fathers in the sample, see Table 4), the scores were higher on the following variables when it was the mother who was

*Table 4.* Comparison of frequencies of Rorschach variables as a function of the gender of the ill parent (parent suffering from cancer, N=52)

Variables	Ill father	Ill mother	$\chi^2$
$L \le .99$	7	6	
L > .99	21	18	.00
EB extratensive	5	5	
EB ambiequal	18	10	
EB introversive	5	9	3.14
SumV = 0	21	4	
SumV > 0	7	20	17.62***
MOR = 0, 1  or  2	15	0	
MOR > 2	13	24	18.07***
SumC' = $0$ , 1 or $2$	8	6	
SumC' > 2	20	18	.08
DEPI < 5	12	5	
DEPI ≥ 5	16	19	2.85
DEPI < 6	24	10	
DEPI ≥ 6	4	14	11.08**
SumY = 0  or  1	8	4	
SumY > 1	20	20	1.03
D < 0	17	16	
$D \ge 0$	11	8	.20
D < -1	10	5	
D ≥ -1	18	19	1.39
An + Xy = 0  or  1	14	10	
An + Xy > 1	14	14	.36
EGO < .33	24	19	
EGO ≥ .33	4	5	.39
EGO < .25	17	13	
EGO ≥ .25	11	11	.23
Blends/R $\leq$ .25	26	15	
Blends/ $R \ge .25$	2	9	7.14**
Ma < Mp	22	13	
Ma≥Mp	6	11	3.50
COP = 0	21	17	
COP > 0	7	7	.11
Isolate/R $\leq$ .25	7	16	
Isolate/ $R \ge .25$	21	8	9.10**

Note. \* $p \le .05$ , \*\* $p \le .01$ , \*\*\* $p \le .001$ .

ill: productivity (R), self-disgust, and shame (SumV), negative self-representation and the world (MOR), and subclinical or clinical depression (DEPI index). In contrast, the score was slightly higher on social withdrawal (isolation index: Isolate/R) when the father was ill.

These results tend to support the hypothesis that illness in the mother is associated with more negative or morbid characteristics than when it is the father who is affected, with a higher level of emotional distress being associated with maternal illness (higher in SumV and more children with a SumV > 0) and a greater number of positive criteria on the DEPI index, for which high values were recorded more frequently (DEPI = 5 or -6). In addition, in this case, a greater number of children exhibit numerous negative thoughts about themselves and the world (MOR > 2) coupled with a frequently high level of anxiety (SumY > 1).

The results also indicate a greater tendency toward simplification (Blends/R > .25) and a tendency toward social withdrawal when the father is ill, accompanied by a greater incidence of high isolation scores (Isolate/R = .25). So, the signs of depression, emotional distress and poor self-esteem, tend to characterize the children of an ill mother.

#### Role of the Child's Sex

In the overall sample (including control group), girls (n = 56) had higher scores than boys (n = 46) on the SumV variable, with a mean of 0.71 compared to 0.35 (F = 4.87, p < .05). The other comparisons were not significant. When their parents were suffering from cancer (see Table 4), girls (n = 28) had higher scores than boys (n = 24) on the following variables: self-disgust and shame (SumV), complexity (Blends/R), and active coping (Ma). Boys exhibited a higher response frequency (R) and a higher self-esteem (EGO index). The other differences were not significant (see Table 5).

These results tend to favor the hypothesis that girls exhibit more negative affects than boys. In our study, a higher level of emotional distress was observed in girls (higher SumV) both in the total sample and in the cancer group. Boys defended themselves more by simplification (higher Blends/R ratio in girls with more cases of a Blends/R ratio = .25), by taking refuge in fantasy (fewer Ma and more Mp responses and a more frequent Ma < Mp configuration) as well as a certain level of social withdrawal (greater frequency of Isolate/R = .25). The expression of difficulties does not therefore take the same form depending on the sex of the child, with girls exhibiting more items testifying to a certain level of

*Table 5.* Comparison of frequencies of Rorschach variables as a function of the gender of the child (parent suffering from cancer, N = 52)

Variables	Boy	Girl	$\chi^2$
L ≤ .99	4	9	
L > .99	24	15	2.58
EB extratensive	4	6	
EB ambiequal	12	16	
EB introversive	8	6	.96
SumV = 0	16	9	
SumV > 0	8	19	6.17*
MOR = 0, 1  or  2	6	9	
MOR > 2	18	19	.32
SumC' = $0, 1 \text{ or } 2$	5	9	
SumC' > 2	19	19	.84
DEPI < 5	11	6	
DEPI ≥ 5	13	22	3.50
DEPI < 6	18	16	
DEPI ≥ 6	6	12	1.82
SumY = 0  or  1	7	5	
SumY > 1	17	23	.93
D < 0	14	19	
$D \ge 0$	10	9	.51
D < -1	6	9	
D ≥ -1	18	19	.32
An + Xy = 0  or  1	12	12	
An + Xy > 1	12	16	.27
EGO < .33	20	23	
EGO ≥ .33	4	5	.01
EGO < .25	9	21	
EGO ≥ .25	15	7	7.45**
Blends/R $\leq$ .25	23	18	
Blends/ $R \ge .25$	1	10	7.71**
Ma < Mp	23	12	
Ma≥Mp	1	16	16.48***
COP = 0	18	20	
COP > 0	6	8	.084
Isolate/R $\leq$ .25	5	18	
Isolate/ $R \ge .25$	19	10	9.89**

Note. \* $p \le .05$ , \*\* $p \le .01$ , \*\*\* $p \le .001$ .

emotional distress and more frequent low self-esteem (EGO index lower and more EGO scores < .25).

## Interactions Between the Sex of the Child and the Sex of the Ill Parent

The interaction between the sex of the ill parent and the sex of the evaluated child was examined by means of a two-factor analysis of variance (ANOVA) including the interaction factor. In the total sample (n = 102), a significant effect of the interaction was observed for active coping (Ma, F = 4.97, p <.05), at a lower level in boys when the father was ill (M = 1.00, n = 28 compared to M = 1.44, n = 18), and at a lower level in girls when the mother was ill (M = 1.37, n = 27, compared to M = 1.86, n = 29). The same phenomenon was observed for positive social interactions (cooperation movements COP, F = 5.25, p < .05), with a lower level being observed in boys when their father was ill (M = 0.21 compared to M = 0.61), and in girls when their mother was ill (M = 0.26 compared to M = 0.45). When we focused more specifically on the children with a parent suffering from cancer, we observed that the interaction had an effect on the level of positive social interactions (COP variable, F = 5.55, p < .05) with (as above) a lower level in boys when the father was ill (M = 0.18, n = 17 compared to M = 0.71, n = 7), and a lower level in girls when the mother was ill (M = 0.24, n = 17 compared to M = 0.24) 0.55, n = 11). The other interaction effects were not significant. These differences point to a certain passiveness and difficulties in investing effort in positive social relations when the parent with whom the child preferentially identifies is at risk.

Some of the items contributed further to our understanding. In the cancer group, we identified various items that might point to a tendency to simplification, with a large proportion of form-determined responses associated with a lower level of productivity (Lambda associated with low R) and fewer multidetermined responses (Blends). It is possible to interpret these items as a defense mechanism in the face of the illness and the experienced difficulties (Exner, 2003). We also saw in these children a greater tendency to seek refuge in fantasy (more Mp and less Ma, as well as a greater frequency of Ma  $\leq$  Mp), which might also constitute a defensive strategy. Finally, we observed higher isolation indices in the children with a parent suffering from cancer, a fact that can be interpreted in association with the scale of the depressive affects or as a consequence of the parent's illness. Thus, withdrawal can be thought of

as a way of protecting oneself since it enables the child to be less exposed to other people's negative affects and incomprehension in a context in which cancer provokes a representation of severity and death among one's friends and family members. The child is unable to accept this representation which would lie at the root of a great sense of injustice (Flahault, Barthier, & Dolbeault, 2003).

#### **Discussion**

The confirmation in a Rorschach study of the presence of anxious and depressive items and a greater impairment to self-esteem in children with a parent suffering from cancer doubtlessly results from the impact of the disease on everyday family life and the lethal threat posed by cancer. We can hypothesize that it is more difficult for families to talk to one another about cancer than is the case with other pathologies, and that this may hinder children's adaptation to their parent's illness (Seigneur et al., 2004). It is also possible that the affective signs and the impairment of self-esteem observed here result from a feeling of guilt, as signs of guilt observed here suggest (SumV), something that is often described with reference to cancer-related diseases (Flahault et al., 2003). Concerning the psychological issues of children of an ill mother (depression, anxiety, poor self-esteem), we can hypothesize that children are probably more frequently confronted by upheavals from cancer and its treatment when it is the mother who is ill, due to the distribution of family roles between father and mother, the latter being more frequently responsible for child-related tasks.

However, we would like to draw the reader's attention to certain limitations of this study. The most important of these is the fact that the researcher was aware of the status of the parent's illness, thus making it impossible to assess the children blindly; and the fact that all the data was collected by the same person (first author). This could have biased the evaluation, and we tried to reduce this issue by using a co-scorer blind to the group statement protocols and to the hypotheses of the study. Next, as far as the structure of the research is concerned, the cross-sectional design did not allow us to consider the dynamic aspects of the children's symptomatology or establish a link between the real or perceived severity of the cancer and the children's difficulties. Further-reaching, more contextualized studies will be required in order to shed

light on these points. Nevertheless, the present study has enabled us to evaluate the difficulties in adaptation experienced by children with a parent suffering from cancer compared to children with a parent suffering from a chronic pathology.

This study therefore reveals that children suffer greater distress when they have a parent with cancer than with another illness. Adaptation also seems to be more difficult when the ill parent is the mother. In addition, girls and boys showed somewhat different adjustment patterns. Finally, adaptation was even more difficult (although this involved a limited number of variables) when the child and the ill parent had the same sex. The data shown here go beyond preexisting results because they were collected with a performance-based procedure, which is more likely to demonstrate positive results in delicate situations where subjects might be particularly defensive or resistant.

These results should encourage practitioners to develop appropriate support methods for such children. The dimensions of isolation and withdrawal, and the difficulty these children have imagining positive social relations, might suggest the use of group support work. The development of family-focused treatments would make it possible to concentrate on the impact on the family in terms of a redistribution of functions and encourage communication in a way that enables the family, and more particularly the children, to adapt (Watson, St. James-Roberts, & Ashlet, 2006).

In conclusion, despite the methodological limitations of this study, the confirmation of existing results obtained through self-report with a performance-based instrument like the Rorschach is a strong sign of a positive result.

Further studies should consider the use of methodological design to enlighten dynamic aspects of children's adaptation: test-retest design, for example, or testing children at different times of the disease process and using tools to examine the parents' and the child's perception of disease in order to link this point to adaptation experience.

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#### Summary

Parents with cancer may have a devastating effect on the psychological well-being of their children. In recent years, a large number of clinical studies have focused on the close relatives of patients suffering from physical pathologies, in particular in the field of cancer. The role of close relatives has been described with increasing frequency, and the attention paid to children with parents suffering from cancer is growing. The types of care available for these children are now becoming more diversified. In this comparative study, we examined the hypothesis that children who have a parent suffering from cancer experience greater difficulty in terms of psychological adaptation than children with a parent suffering from another chronic illness. The aim is to use the Rorschach Comprehensive System to test the hypothesis that chil-

dren and adolescents with a parent suffering from cancer exhibit more signs of anxiety, depressive affects, and a lower self-esteem than children and adolescents with a parent suffering from some other chronic pathology. Given the observations made in previous studies presented in this paper, we also expect girls to exhibit more negative affects than boys, and that the negative or morbid characteristics will be most pronounced when it is the mother rather than the father who is ill. Methods: A group of 52 children of parents with metastatic cancer undergoing chemotherapy was compared with a group of 50 children whose parents were suffering from another chronic disease (respiratory insufficiency, diabetes). The mean age was  $12.3 \pm 2.8$  years, and we met with 46 boys and 56 girls. All the children were administered the Rorschach Comprehensive System (RCS). Results: The results tend to support the hypothesis that children and adolescents who have a parent suffering from cancer exhibit a broader-based anxiety, more affects related to perceived stress, more depressive affects, and less self-esteem. The results also tend to support the hypothesis that illness in the mother is associated with more negative or morbid characteristics than when it is the father who is affected, with a higher level of emotional distress, depressive affects, and poor self-esteem. Results tend to favor the hypothesis that girls exhibit more negative affects than boys: We noticed a higher level of emotional distress in girls both in the total sample and in the group of children with a parent suffering from cancer. Finally, the results reveal a certain passiveness and difficulties in investing effort in positive social relations when the ill parent has the same gender as the child. These results confirm the data reported in the literature in a large sample using an indirect performance-based evaluation method: They reveal that children suffer greater distress when they have a parent with cancer than with another illness, and that adaptation also seems to be more difficult when the ill parent is the mother. In addition, girls and boys showed somewhat different adjustment patterns. This study shows some methodological limitations, and for further research we have to consider the use of a methodological design to enlighten dynamic aspects of children's adaptation. It will also be necessary to examine parents' and children's perception of disease in order to link this point to adaptation experience. These results tend also to emphasize the need to develop specific clinical interventions for these children to take account of the gender of the child and the ill parent.

#### Résumé

Le cancer d'un parent peut avoir un effet devastateur sur le bien être psychologique de ses enfants.

Ces dernières années de nombreuses études cliniques se sont intéressées aux proches de patients atteints de pathologies somatiques, notamment dans le champ de la cancérologie. La places des proches a été décrite plus fréquemment, l'attention portée aux enfants dont un parent souffre de cancer a augmentée, et les prises en carges proposées à ces enfants se sont développées et diversifiées.

Dans cette étude comparative nous testerons l'hypothèse selon laquelle les enfants dont un parent est atteint de cancer rencontreront davantage de difficultés d'adaptation psychologique que les enfants dont un parent souffre d'une autre pathologie chronique. Le but de cette étude est de tester l'hypothèse, en utilisant le Rorschach en Système Intégré, selon laquelle les enfants et adolescents dont un parent est atteint de cancer présenteront davantage d'éléments anxieux, d'affects dépressifs, et une estime de soi plus basse, que ceux dont un parent souffre d'une autre pathologie chronique. Aus vues des observations de études antérieures présentées dans cet article, nous attendons aussi que les filles présentent davantage d'affects dépresifs que les garçons, et que les caractéristiques négatives ou morbides soient plus prononcées quand la mère est malade plutôt que le père.

Méthode: Un groupe de 52 enfants de parents atteints de cancer métastatique en cours de traitement a été comparé à un groupe de 50 enfants dont un parent souffre d'une autre pathologie chronique (insuffisances respiratoire chronique, diabète). L'âge moyen est de 12.3 ans ± 2.8 ans, et nous avons recnontré 46 garçons et 56 filles. Tous les enfants ont passé le Rorschach en système intégré.

Résultats: Les résuktats tendent à confirmer l'hypothèse selon laquelle les enfants et les adolescents dont un parent est atteint de cancer présentent davantage d'éléments anxieux, d'affects relatifs à une situation de stress, d'affects dépressifs, et une altération de l'estime de soi. Ils vont aussi dans le sens de l'hypothèse selon laquelle on retrouve davantage de caractérisqtiques négatives ou morbides au Rorschach lorque c'est la mère qui est malade par rapport à lorsqu'il s'agit du père, avec un niveau de détresse émotionnelle plus important, davantage d'affects dépressifs et une altération de l'estime de soi plus marquée. Les résultats confirment aussi l'hypothèse selon laquelle les filles manifestent davantage d'affects négatifs que les garçons: On relève un niveau de détresse plus important chez les

filles à la fois sur l'échantillon totale et dans le groupe d'enfants dont un parent est atteint de cancer. Popur finir, les résultats révèlent une ceratine tendance à la passivité et des difficultés à s'investir dans des relations sociales positives quand le parent malade est du même sexe que l'enfant.

Ces résultats confirment les données issues de la littératuresur un large échantillon, en utilisant une épreuve de performance permettant une évaluation indirecte. Les résultats montrent que les enfants rencontrent davantage de difficultés psychiques quand leur parent est atteint de cancer comparés à ceux dont le parent souffre d'une autre pathologie chronique, et que l'adaptation psychologique est plus difficile lorque c'est la mère qui est malade. De plus, les filles et les garçons présentent des styles adaptatifs différents.

Cette étude a montré des limotes méthodologiques et les recherches futures devront envisager des procédures permettant d'appréhender les aspects dynamiques de l'adaptation psychologique de ces enfants. Il sera aussi nécessaire d'évaluer la représentation de la maladi chez les parents et les enfants pour la relier au procesus adaptatif. Ces résultats encouragent aussi le développement d'interventions cliniques spécifiques pour ces enfants en tenant compte du sexe de l'enfant et de celui parent malade.

#### Resumen

El hecho de que los padres padezcan cáncer puede tener un efecto devastador para el bienestar psicológico de los menores.

Recientemente han aparecido numerosos estudios clínicos focalizados en los parientes cercanos de personas que sufren diversas patologías físicas y, en particular, en los que padecen cáncer. El papel de la familia cercana se ha ido describiendo cada vez con mayor frecuencia en las investigaciones y se está incrementando la atención hacia los niños cuyos padres padecen cáncer. Del mismo modo, los tipos de ayuda disponibles para ellos están siendo cada vez más diversificados.

En este estudio comparativo se pone a prueba la hipótesis de que los niños con uno de sus progenitores padeciendo cáncer experimentan mayores dificultades en términos de adaptación psicológica que los niños cuyos padres sufren otras enfermedades crónicas. El objetivo es comprobar, mediante el uso del Rorschach (Sistema Comprehensivo) la hipótesis de si niños y adolescentes, hijos de padres con cáncer, presentan mayores signos de ansiedad y de emociones depresivas, junto a una menor autoestima, que niños y adolescentes con padres que padecen otras enfermedades crónicas.

Teniendo en cuenta las conclusiones obtenidas en estudios previos, también se espera que las niñas registren un mayor impacto emocional que los varones y que los afectos disfóricos y generadores de malestar sean mayores cuando la madre es la que está enferma en lugar del padre.

Método: Se compara a un grupo de 52 menores con padres sufriendo cáncer metastásico y sometidos a quimioterapia, con otro grupo de 50 menores cuyos padres padecen otras enfermedades crónicas (insuficiencia respiratoria, diabetes, etc). La media de edad es de  $12.3 \pm 2.8$  años y el grupo se compone de 46 varones y 56 mujeres. A todos los menores se les administró el Rorschach con criterios del Sistema Comprehensivo (RCS).

Resultados: Los resultados apuntan a la ratificación de la hipótesis que los menores de padres con cáncer muestran mayores niveles de ansiedad, de afectos relacionados con la percepción del estrés y de afectos depresivos, así como una autoestima más baja. También aparecen apoyos para la hipótesis de que la enfermedad de la madre está asociada con características más depresivas o disfóricas que cuando el enfermo es el padre, mostrando los menores del primer caso un nivel más elevado de malestar emocional y menor autoestima. Asimismo, se observa una tendencia a confirmar la hipótesis de que estas circunstancias provocan un mayor impacto afectivo en las niñas que en los varones: se comprueba un nivel de malestar emocional más elevado en las niñas, tanto en la muestra total como en el grupo de los menores de padres con cáncer. Finalmente, los datos revelan un grado mayor de pasividad y de dificultades para realizar esfuerzos a la hora de instaurar relaciones sociales positivas cuando el progenitor enfermo es del mismo género que el menor.

Estos resultados confirman los aportados por muchas otras investigaciones y se mantienen utilizando un método basado en la evaluación indirecta de la ejecución: los datos revelan que los menores sufren un mayor nivel de malestar afectivo cuando uno de sus progenitores padece cáncer que cuando padece otra enfermedad crónica y que la adaptación también parece ser más difícil cuando la enferma es la madre. Además, las niñas y los varones parecen mostrar pautas de ajuste diferentes.

Este estudio presenta algunas limitaciones metodológicas y para investigaciones sucesivas hay que crear un diseño que permita comprender los aspectos dinámicos de la adaptación de los menores. Asimismo, será necesario examinar la percepción de la enfermedad de padres e hijos para poder relacionar estos aspectos con las experiencias adaptativas. Nuestros datos señalan también la necesidad de desarrollar intervenciones clínicas específicas para estos menores, que tengan en cuenta el género del menor y el del progenitor enfermo.

癌を患っている親は子どもの心理学的健康に衝撃的な影響を与える可能性を有している。

近年、多くの臨床研究が身体的疾患に苦しむ患者の近親者、特に癌の領域において、に焦点があてられている。近親者の役割はより頻繁に記述されるようになっており、癌に苦しむ親のいる子どもに向けられる注目は増しており、これらの子どもたちに役立てることのできるケアはより多様化してきている。

方法:転移した癌の化学療法を遂行中の親を持つ52名の子どものグループと、他の慢性疾患(呼吸器不全、糖尿病)の親を持つ50名の子どものグループが比較された。平均年齢は12.3±2.8歳であり、46名が少年男子、56名が少年女子であった。対象となったすべての子どもに包括システム(RCS)によりロールシャッハが施行された。

 な社会関係を築く努力をするに当たって、ある種の受身性や 困難を本研究は示している。

これらの結果は、より大きな標本をもちいて、間接的なパフォーマンスベースドの評定の方法をもちいた文献に報告されているデータを裏づけている:その結果は子ども達は、癌の親を有している場合は、親が他の疾患を有している場合に比べてより苦悩しやすく、患っているのが母親である場合に比べてより困難になるらしいことをあらわしている。されるのである。されるないとなった順応様式を示した。

本研究はいくらかの方法論的な限界を示しており、子どもの適応の力動的な側面に焦点を当てた方法論のデザインをもちいた更なる研究をわれわれはおこなうべきであろう。この観点と適応経験をつなげるために、親と子どもが病気をどのように知覚しているかも検討する必要があるであろう。本研究の結果はまた、子どもと病気の親のジェンダーを考慮に入れた、これらの子どもたちへの特別な臨床的介入を展開させる必要性を強調するであろう。