

## PAPER

# Dyadic effects of coping strategies, time perspectives, and personality on the quality of life of cancer patients and their caregivers

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## Abstract

**Objective:** Researchers are interested in studying whether the quality of life (QoL) of cancer patients and caregivers is influenced by internal psychobehavioral processes (temporality and coping strategies) and the personality traits that they or their relatives experience. We examined these associations in a sample of patient-caregiver dyads by using the actor-partner interdependence model.

**Methods:** This cross-sectional study involved 156 cancer patient-caregiver dyads. The self-reported data included QoL (Short-Form 36), coping strategies (Brief Coping Orientation to Problems Experienced Scale), time perspectives (Zimbardo Time Perspective Inventory), and personality (Big Five Inventory). The actor-partner interdependence model was used to test the dyadic effect individualizing actor (degree to which the individual's characteristics were associated with their QoL) and partner (degree to which the individual's characteristics were associated with the QoL of the other dyad member) effects.

**Results:** Actor effects were found for patients and caregivers: The use of positive thinking and future/present-hedonistic perspectives were associated with higher QoL; the use of avoidance and past-negative perspective were associated with lower QoL. Partner effects were also found highlighting the specific mechanisms of the interconnections in the patient-caregiver dyad. The patient's QoL was higher when the caregiver used social support and experienced openness. The caregiver's QoL was lower when the patient used social support and avoidance strategies and experienced future perspective.

**Conclusions:** The examination of the relationships between individuals' QoL and their internal psychobehavioral processes and personality traits will have several applications in the routine clinical management. Individual-level and dyad-level interventions should be proposed: cognitive-rehabilitation, emotional and cognitive self-regulation for time perspectives, and personality constructs.

## KEYWORDS

cancer, caregivers, coping, dyads, oncology, personality, quality of life, temporality

## 1 | BACKGROUND

A cancer diagnosis is a crisis for many individuals, who are confronted not only with cancer and its treatment but also with the possibility of physical disability, threats to their family and social

roles and relationships, and concerns about life and death. Cancer causes major lifestyle disruptions on the everyday life of the patients and their family caregivers.<sup>1</sup> This impact on quality of life (QoL) may differ according to the individuals' sociodemographic and clinical characteristics. Age, gender, marital status, and the severity and

duration of the disease have been extensively described as significant QoL determinants.<sup>2</sup> However, other factors, such as psychobehavioral factors, may also influence self-reported QoL. Thus, coping strategies, temporal perspectives, and personality-related factors should be examined.

The influence of coping, defined as the cognitive and behavioral efforts implemented to solve problems and to reduce any resulting stress,<sup>3</sup> on QoL in cancer patients has already been described.<sup>4,5</sup> These works have shown that the nature of individuals' coping strategies may have a direct impact on their QoL and that of their informal caregivers. The use of problem-solving or positive-thinking strategies has generally been associated with higher levels of QoL, while the use of avoidance strategies has been associated with lower QoL.<sup>5</sup> The role of the time perspectives that people mobilize to structure their experiences may influence their well-being, life satisfaction, and QoL.<sup>6,7</sup> The time perspective is defined as nonconscious processes that reveal the individual's preference to use time frames when interpreting important personal life events<sup>8</sup> and enables to understand why individuals are influenced by their view of the future, by their past memories, or by their present exigencies.<sup>8</sup> The authors suggest that time perspectives could be treated as a mechanism for affective regulation. Well-being and self-report QoL may be influenced by the temporal framing of experience and the self-regulative strategies that follow from the individual's orientation in time.<sup>9</sup> Classically, past-positive, present-hedonistic, and future perspectives have been positively associated with well-being, while past-negative and present-fatalistic perspectives have been more often negatively associated with well-being.<sup>6,10</sup> In addition, the role played by personality traits in self-reported QoL has attracted research attention in the past few decades. A wide variety of theoretical linkages between personality and QoL was proposed. A strong association supports hypothesized direct and indirect relationships, supported by psychobiology mechanisms and neural substrates (role neurotransmitter serotonin)<sup>11</sup> and by psychobehavioral theory.<sup>12</sup> In the general population, as in the specific field of cancer, the authors have previously reported these influences. Neuroticism seems to be associated with lower well-being,<sup>13</sup> while extraversion, conscientiousness, agreeableness, and openness are associated with better mental and physical health, better mood, and greater satisfaction.<sup>10,14,15</sup>

Confronted with cancer, patients and caregivers also need to proceed together and cope as dyads along the cancer trajectory.<sup>16</sup> They begin a process of readjusting and adapting, which includes managing disruptions of life plans, changes in family and social roles, and shifts in responsibilities. Due to the existing interconnections between the patients and their caregivers, these processes may simultaneously affect each of them. To consider the reciprocal influences and congruence between patient-caregiver dyads, studies should be conducted at the dyadic level.<sup>16</sup>

In the present study, we used a sample of patient-caregiver dyads to determine whether the QoL of patients and caregivers is influenced by internal psychobehavioral processes (coping strategies and time perspectives) and personality traits of either themselves or their relatives. We took a specific approach: the actor-partner interdependence model (APIM).

## 2 | METHODS

### 2.1 | Setting

The study employed a cross-sectional design; the sample included cancer patients from 2 oncology departments of French public academic teaching hospitals (Marseille) and their caregivers. The participating departments predominantly cared for patients presenting with lung cancer, prostate/urologic cancer, breast cancer, and genital cancer.

### 2.2 | Population

The population included patient-caregiver dyads. The inclusion and exclusion criteria for the dyads were as follows: (i) patients: individuals 18 years of age or older who had a cancer defined by histology (whatever the origin of the primitive, loco-regionally advanced or metastatic cancer) with an indication of chemotherapy, and who were able to speak/read French and (ii) caregivers: individuals 18 years of age or older, who the patients had designated as primary caregivers (defined as the most involved person in their life), who were able to speak/read French, and who were free from cancer comorbidity.

### 2.3 | General procedure

The screening of eligible patients was performed by oncologists from medical consultation and hospitalization stay. After giving his or her consent, the patient was asked to designate a caregiver. If the caregiver was near the patient, he or she was informed in the same time; if not, he or she was contacted by phone. Selection criteria were checked, and consents were collected. To prevent bias of contamination, specification was given to the patient and the caregiver to independently fill in the form.

### 2.4 | Ethics

Regulatory monitoring was performed in accordance with the French law that requires approval of the French ethics committee (Comité d'éthique, Aix Marseille University, October 8, 2015, number 2014-09-30-05). Written consent forms for participation were collected from each patient and caregiver.

### 2.5 | Data collection and measures

The age, gender, marital status, and education level were collected for both patient and caregiver. The relationship between the patient and the caregiver (ie, partners, children/parents, brothers/sisters, and others) was recorded. For the patient, the localizations of the cancer, the WHO performance status, and the presence of nodes/metastasis were collected from medical records.

The same tools were used to assess QoL, coping, time perspectives, and personality for patients and caregivers.

- The Short-Form 36 (SF36) was used to assess QoL. The SF36 is a generic questionnaire<sup>17</sup> that includes 36 items yielding 2 component summary measures (physical and mental composite scores,

PCS-SF36 and MCS-SF36). The time frame is the preceding 4 weeks. All internal consistency reliability estimates were greater than 0.70. Short-Form 36 scores range from 0 (lowest QoL level) to 100 (highest QoL level).

- The Brief Coping Orientation to Problems Experienced Scale was used to assess coping strategies that the individual generally uses. This questionnaire includes 28 items. A 4-factor structure has shown satisfactory properties<sup>18</sup>: social support, problem solving, avoidance, and positive thinking. Cronbach alpha coefficients ranged from 0.64 to 0.82. Scores range from 0 to 5. High scores reflect a high tendency to implement the corresponding coping strategies.
- The Zimbardo Time Perspective Inventory (ZTPI) was used to assess time perspectives that the individual generally uses.<sup>8</sup> The development of ZTPI was based on the following definition of time perspective: "a nonconscious process whereby the continual flows of personal and social experiences are assigned to temporal categories or time frames." The French version<sup>19</sup> includes 15 items, yielding 5 time perspective scores: past-negative, present-hedonistic, future, past-positive, and present-fatalistic scores. All Cronbach alpha coefficients are higher than 0.70. Each score ranges from 1 to 5. Higher scores reflect a high tendency to use the corresponding time perspective.
- The 10-item short version of the Big Five Inventory (BFI-10) was used to assess stable personality traits.<sup>20</sup> The BFI-10 measures the following 5 personality dimensions: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. The BFI-10 scales retain significant level of validity (Cronbach alpha coefficients range from 0.74 to 0.82). Each score ranges from 1 to 5. Higher scores reflect a high tendency to exhibit the corresponding personality trait.

## 2.6 | Statistical aspects

Descriptive analyses of patients' and caregivers' characteristics were provided. Appropriate algorithms were used to compute various scores (SF36, Brief Coping Orientation to Problems Experienced Scale, ZTPI, and BFI-10). Paired *t* tests were used to compare various scores between patients and caregivers. To assess the dyadic effects of coping strategies, temporality, and personality on QoL (PCS-SF36 and MCS-SF36 scores), the APIM with distinguishable dyads was used.<sup>21</sup> This model is based on scores within the same dyad not being independent and instead being more similar to one another than the scores of 2 individuals who are not in the same dyad. The APIM is a model of dyadic relationships that uses the appropriate statistical techniques for measuring and testing the interdependence. Structural equation modeling (SEM) is 1 of statistical techniques to investigate APIM for distinguishable dyads. Distinguishable dyad members vary on a within-dyad variables (be patient or caregiver). Structural equation modeling can easily incorporate several dependent variables in 1 model and has the ability to correlate error terms. The APIM estimates 2 effects. The actor effect is the extent to which the independent variable of a member of the dyad influences his or her own score on the

dependent variable. The partner effect is the extent to which the independent variable of a member of the dyad influences the dependent variable of the other member of the dyad.

In our specific case, the APIM was used to determine how the parameters (coping strategies and QoL, temporality and QoL, and personality and QoL) of participants (namely, patients and caregivers) are influenced not only by internal factors but also by factors related to the other dyad member. Structural equation modeling simultaneously examines both paths in the APIM: 2 actor effects (ie, each person's QoL regressed on his/her coping strategies, temporality, and personality, respectively) and 2 partner effects (ie, each person's QoL regressed on the other person's coping strategies, temporality, and personality, respectively). Potential confounding factors (age, sex, education level, and the presence of metastasis) were adjusted.

All of the statistical analyses were undertaken by using the following software packages: IBM PASW SPSS 20.0 and Mplus.

## 3 | RESULTS

### 3.1 | Characteristics of patient-caregivers dyads

Among 388 eligible patients, 279 patients were included in the study (patients' participation rate: 71.9%). Among the 279 included patients, 262 designated a caregiver and 187 had a caregiver who agreed to participate (caregivers' participation rate: 71.0%). The QoL physical and mental composite scores (SF36) were available for 156 complete dyads (couple's response rate was 83.4%<sup>22</sup>). Dyads that completed the SF36 did not differ from others, except regarding caregiver age (they were younger than the others) and professional status (they most often reported professional activity than the others).

For patients, the mean time since diagnosis was 36 days (standard deviation = 29). Approximately 27% of the patients were diagnosed with lung cancer, 20% of the patients were diagnosed with urologic cancer, and 13% of the patients were diagnosed with gynecologic cancer. In 61% of the dyads, the patients and caregivers were partners. All patient and caregiver characteristics are presented in Table 1.

### 3.2 | Quality of life, coping strategies, temporality, and personalities of the patients and caregivers

The QoL scores of patients and caregivers are provided in Table 1. Compared with caregivers, the patients reported significantly lower physical scores, but their mental scores did not differ. The patients and caregivers used the 4 types of coping strategies and temporal perspectives at similar levels. The mean values of each personality traits did not statistically differ between patients and caregivers.

### 3.3 | Relationships between coping strategies and quality of life

Figure 1 presents the results of the APIM analysis of the associations between coping strategies and PCS-SF36 and MCS-SF36. Concerning the mental composite scores of QoL, the patients' and caregivers' use of positive thinking and the patients' use of problem solving were

**TABLE 1** Characteristics of the 156 patient-caregiver dyads

		Patients N (%) M ± SD	Caregivers N (%) M ± SD	
<b>Sociodemographics</b>				
Age	Years	60 ± 13.1	54.4 ± 14	
Gender	Woman	65 (41.7)	111 (71.2)	
	Man	91 (58.3)	45 (28.8)	
Education level	<12 years	78 (50.3)	69 (44.8)	
	≥12 years	77 (49.7)	85 (55.2)	
Marital status	Single	46 (29.5)	29 (18.6)	
	Couple	110 (70.5)	127 (81.4)	
Professional status	Worker	33 (21.2)	59 (38.3)	
	Not worker	123 (78.8)	95 (61.7)	
<b>Clinical Data</b>				
Localization of cancer	Lung	41 (27)		
	Urologic	31 (20.4)		
	Gynecologic	19 (12.5)		
	Others*	61 (40.1)		
WHO performance status	0	92 (60.9)		
	≥1	59 (39.1)		
Metastasis	Yes	52 (35.9)		
	No	93 (64.1)		
Time since diagnosis	Days	36 ± 29.3		
<b>Quality of Life (SF36)</b>				<b>P Value<sup>a</sup></b>
PCS-SF36		39.6 ± 9.0	51.6 ± 9.0	<.001
MCS-SF36		40.2 ± 12.2	38.1 ± 12.5	.064
<b>Coping (BriefCope)</b>				
Social support		4.1 ± 1.3	3.8 ± 1.2	.172
Problem solving		4.5 ± 1.7	4.6 ± 1.7	.850
Avoidance		3.1 ± 0.9	2.9 ± 0.7	.062
Positive thinking		4.5 ± 1.2	4.6 ± 1.1	.604
<b>Temporality (ZTPI)</b>				
Past negative		2.7 ± 1.0	2.7 ± 1.0	.673
Present hedonistic		3.0 ± 0.9	2.9 ± 0.8	.297
Future		3.7 ± 0.8	3.8 ± 0.8	.634
Past positive		3.5 ± 0.9	3.6 ± 0.8	.267
Present fatalistic		2.5 ± 1.0	2.4 ± 0.9	.621
<b>Personality (BFI-10)</b>				
Extraversion		3.3 ± 1.0	3.2 ± 1	.133
Agreeableness		3.7 ± 0.8	3.6 ± 0.8	.466
Conscientiousness		4.3 ± 0.8	4.4 ± 0.8	.219
Neuroticism		3.1 ± 1.3	3.2 ± 1.2	.471
Openness to experience		3.4 ± 0.9	3.5 ± 1.0	.331

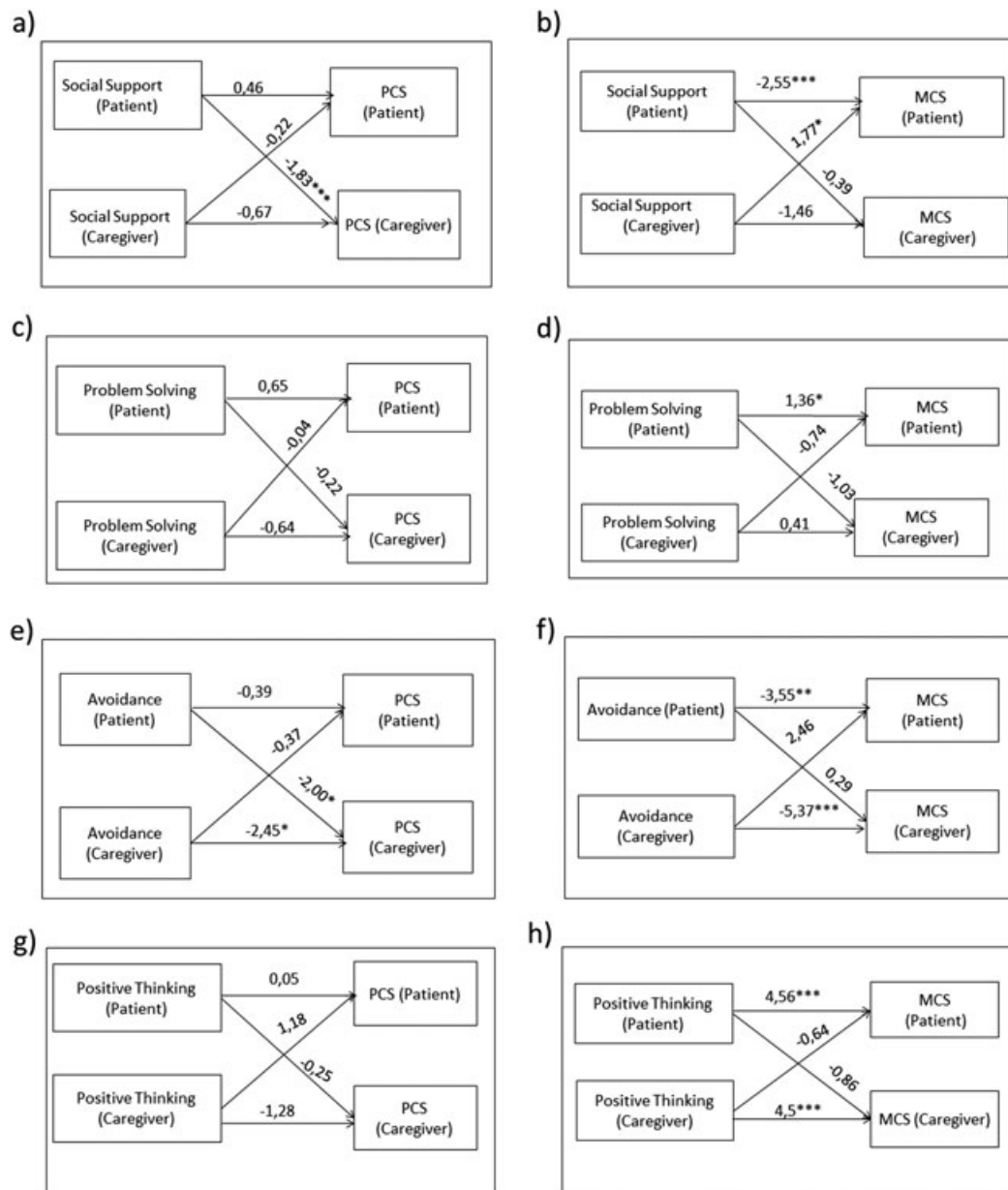
\*Dermatologic, rare cancers.

N (%): effective (percents); M ± SD: mean ± standard deviation; PCS-SF36 and MCS-SF36: physical and mental composite scores of SF36. BriefCope indicates Brief Coping Orientation to Problems Experienced Scale. ZTPI: Zimbardo Time Perspective Inventory; BFI-10: Big Five Inventory.

<sup>a</sup>Paired *t* test.

associated with an increase in their QoL (actor effects; 4.56, 4.50, and 1.36, respectively). The patients' and caregivers' use of avoidance and the patients' use of social support were associated with a decrease in their mental QoL (actor effects; -3.55, -5.37, and -2.55, respectively). The caregiver's use of social support was associated with a significantly

higher mental composite score for the patient (partner effect; 1.77). Concerning the physical composite score, no actor effect was observed, but 2 partner effects were found. When patients used social support and avoidance strategies, the caregivers' QoL was lower (-1.83 and -2.00).



**FIGURE 1** Actor-partner interdependence model for associations between coping strategies and quality of life within the dyads

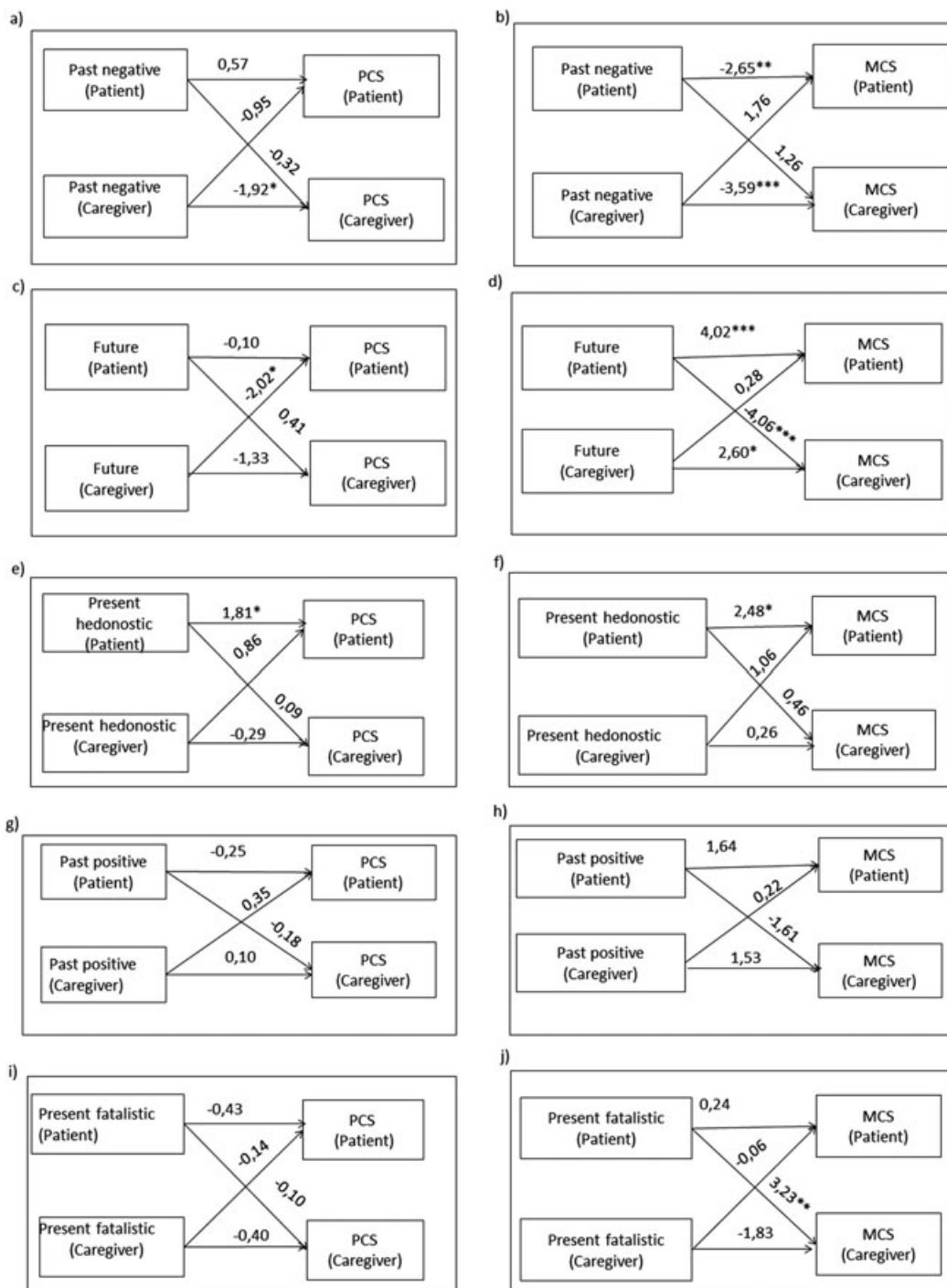
### 3.4 | Relationships between temporality and quality of life

Figure 2 presents the APIM analysis, showing associations between temporality and QoL. The use of past-negative perspectives was associated with poor mental QoL in the 2 samples, that is, patients and caregivers (actor effects,  $-2.65$  and  $-3.59$ ). Conversely, the use of future (by patients and caregivers) and present-hedonistic (by patients) perspectives was associated with better mental QoL (3 actor effects;  $4.02$ ,  $2.60$ , and  $2.48$ , respectively). Two important partner effects were found. When the patients mobilized present-fatalistic perspectives, their caregivers reported higher mental QoL ( $3.23$ ); by contrast, when they mobilized future perspectives, their caregivers reported lower mental QoL ( $-4.06$ ). Some relationships were found between physical QoL and time perspectives. Past-negative perspectives were linked with lower QoL for caregivers, while present-hedonistic perspectives were linked with higher QoL for patients (actor effects;  $-1.92$  and

$1.81$ ). The caregivers' use of future perspectives was negatively associated with patients' physical QoL (partner effect;  $-2.02$ ).

### 3.5 | Relationships between personality and quality of life

Figure 3 presents the relationships between personality traits and QoL. Four partner effects were observed for the mental composite of QoL. When the patient experienced agreeableness, the caregiver reported better QoL ( $2.58$ ). However, the patient's conscientiousness and neuroticism were linked with the caregiver's lower QoL ( $-3.45$  and  $-1.81$ , respectively). The caregiver's openness to experience was associated with the patient's higher QoL ( $2.28$ ). The actor effects were observed in 2 circumstances: Neuroticism was related with lower mental QoL both for patients and caregivers ( $-4.68$  and  $-5.48$ , respectively). For the caregiver only, extraversion was associated with



**FIGURE 2** Actor-partner interdependence model for associations between temporality and quality of life within the dyads

better mental QoL (2.65). For the physical composite of QoL, only 1 partner effect and 1 actor effect were observed: the caregiver's conscientiousness was associated with the patient's lower QoL (-2.17), and the caregiver's use of extraversion was associated with his or her lower QoL (-2.11).

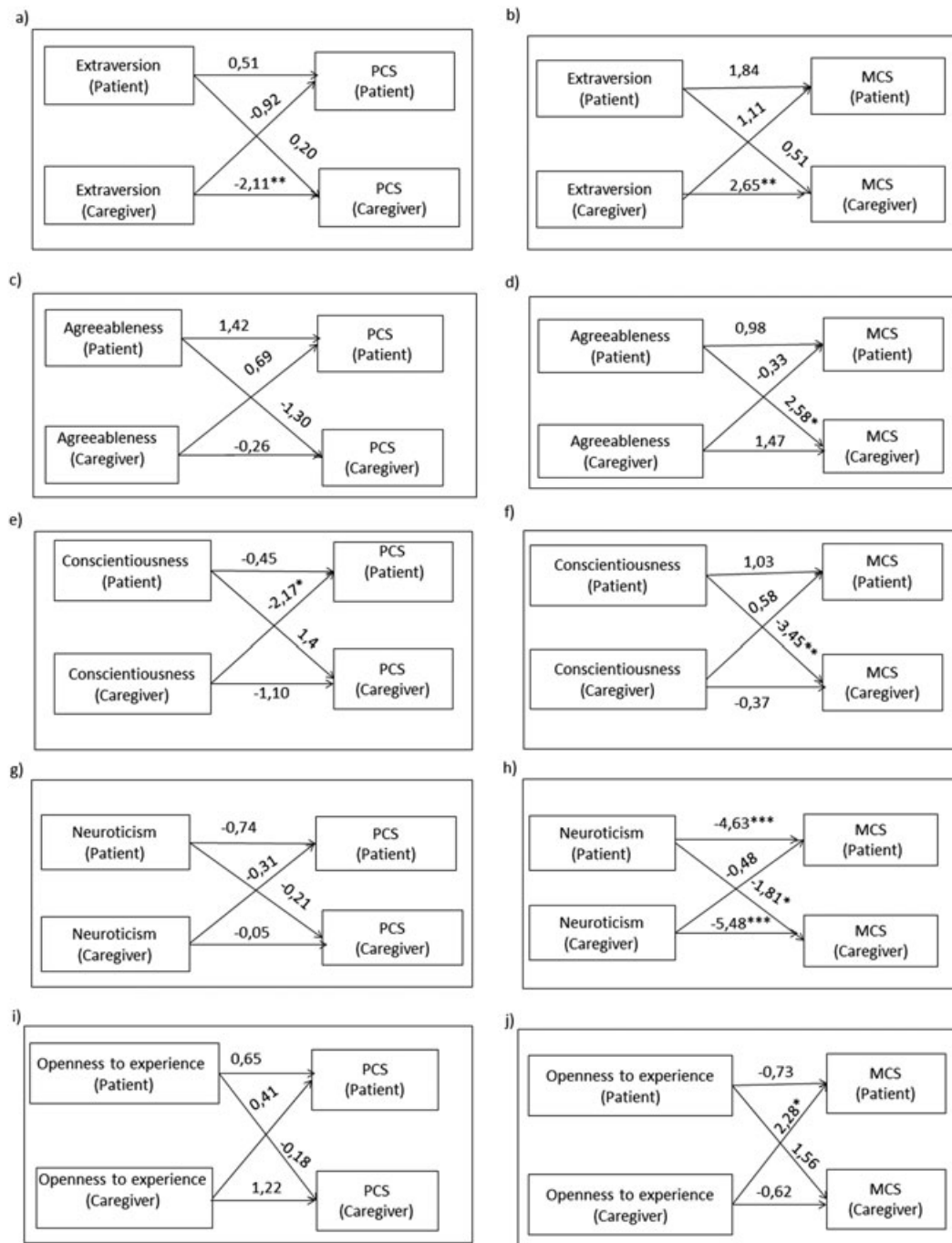
#### 4 | DISCUSSION

To the best of our knowledge, there have been very few studies on the factors influencing the QoL from the dyadic perspective.<sup>23</sup> This study is 1 of the few studies that use a large sample of cancer patient-

caregiver dyads to describe the relationship between individuals' internal characteristics and their self-reported QoL. Because illnesses such as cancer can be considered as a "dyadic stressor,"<sup>24</sup> this study used specific dyadic analyses based on the APIM, which was specifically developed to study dyadic relationships that integrate a conceptual view of interdependence in 2-person relationships. These results lead to rethink previous results for patient's evaluation only.

The first original finding of this study is that cancer patients and their caregivers navigate similar psychobehavioral processes, such as coping strategies and time perspectives. In particular, patients and their caregivers were found to implement coping strategies based on problem solving and positive thinking more than strategies based on





**FIGURE 3** Actor-partner interdependence model for associations between personality and quality of life within the dyads

social support or avoidance (statistically not tested). This unbalanced use has already been described in other populations, including individuals with severe and less severe diseases and impairments, such as gliomas,<sup>5</sup> depression,<sup>25</sup> and age-related hearing loss,<sup>26</sup> and their caregivers. This finding suggests that people who know each other very well and who face the same difficult situation tend to cope with it similarly. Similarly, the patients and their caregivers were found to show similar aspects of temporality, using future, present-hedonistic, and past-positive perspectives more frequently and present-fatalistic and past-negative perspectives less often. A few studies have explored the question of how cancer patients experience time and temporality.<sup>27</sup> Nevertheless, we can easily imagine that, when individuals are diagnosed with cancer, their life courses change, time of death

materializes, and their conceptions of the past/present and their plans for the future are upset. Although we might hypothesize that this relationship to time may differ between patients and caregivers, this finding suggests the opposite: patients and caregivers show similar time perspectives.

This study showed a second interesting finding: The nature of the individuals' psychobehavioral characteristics may have a direct impact on their QoL and their relatives' QoL.

First, we observed that the nature of the individuals' coping strategies may have a direct impact on their relatives' QoL. When patients and caregivers used the positive-thinking and problem-solving coping strategies, their QoL was higher. Conversely, when they used the avoidance and social-support coping strategies, their QoL was lower.

These results have been previously described in different contexts: not only among patients with cancer, such as gliomas<sup>5</sup> and breast cancer,<sup>28</sup> but also among patients with noncancer-related but severe diseases and disorders, such multiple sclerosis,<sup>29</sup> kidney disease requiring hemodialysis,<sup>30</sup> schizophrenia,<sup>31</sup> and severe depression.<sup>25</sup> This finding encourages a systematic assessment of patient and caregiver coping styles to identify individuals who do not adopt healthy coping strategies and to offer targeted psychological interventions.<sup>32</sup> Positive findings have been reported for combined cognitive-rehabilitation and problem-solving therapy interventions for patients with brain tumors and their caregivers.<sup>33</sup>

Regarding the associations between time perspectives and QoL, we found actor effects in the 2 samples. For patients and caregivers, the past negative perspective was systematically associated with lower mental QoL scores, and future perspective was associated with higher mental QoL scores. The way in which people perceive the past, present, and future remains significant for their life satisfaction,<sup>6,10</sup> affective aspects of well-being and mood,<sup>7</sup> and self-reported QoL.<sup>9</sup> Generally, past-negative perspectives have been more frequently associated with lower mood, life satisfaction, and subjective well-being levels<sup>6,10</sup>; conversely, past-positive perspectives have been strongly associated with higher well-being.<sup>6</sup> The role of the past (negative or positive) may reflect the memory retrieval processes through which the current self-concept draws on autobiographical memories.<sup>10</sup> We also found partner effects (the association between a dyad member's time perspective and the QoL of the other dyad member). The patient's future perspective reduced his or her caregiver's mental QoL score. At first glance, this association may be surprising; we might have expected that the patient's future perspective would logically satisfy his/her caregiver. Some hypothesis should be posited. First, this result can be dependent to the scale use: Indeed, the future time perspective of ZTPI refers exclusively to the dimensions of planning and achievement, while other dimensions of psychological experience of the future are not considered (pessimistic or optimistic future, transcendental future). Second, this finding refers to the place/role that a caregiver wishes to have. To feel useful for the patient may give sense of life. And finally, the cancer patient and his or her caregiver may differently interpret their projections of the future. Indeed, as a cancer patient might prefer to continue planning and scheduling his or her life to optimistically advance through his or her daily life, the more realistic caregiver might find planning for the future more difficult. Demonstrating the importance of time perspectives may result in several potential applications. Individual-level interventions may be developed to enhance individuals' QoL and to support more constructive retrieval, attentional, and self-regulative processes as they reflect on past and future emotions.<sup>34</sup>

Finally, we observed significant associations between personality factors and QoL. Viewed as an individual resource, personality can positively or negatively influence QoL. In this study, we found that, for both patients and caregivers, neuroticism was clearly associated with lower (mental) QoL, as previously reported<sup>10,14</sup> in various contexts (patients with cancer,<sup>13</sup> patients with neurological diseases or problems,<sup>35</sup> and patients with schizophrenia<sup>36</sup>). Similar to the findings of previous studies,<sup>10,14,15</sup> we found that extraversion may be related to higher mental QoL (for patients and caregivers) and lower

physical QoL (for caregivers only). We also found partner effects: The patient's conscientiousness had a negative impact on the caregiver's QoL; similarly, the caregiver's conscientiousness had a negative impact on the patient's QoL. To the best of our knowledge, no studies have explored this dyadic effect. As high conscientiousness should amplify clear-sightedness of the disease, high conscientiousness in 1 dyad member may result in a clear-sighted picture of the life situation for the other dyad member. All these findings suggest that a personality assessment must be routinely added to the standard clinical assessment of patients and caregivers to tailor support programs and thereby obtain the optimal benefits of various interventions.<sup>37</sup> For example, highly neurotic individuals may benefit from therapies that have been shown to reduce neuroticism and negative affect and to increase extraversion.<sup>38</sup>

#### 4.1 | Study limitations

The share of the individuals not included in our study raises the question of the representativeness of our results. Given this limitation, we compared some characteristics of the included individuals and of those not included and found that the participants were younger and more likely to be employed. Thus, information is lacking from older dyads, and future studies should specifically explore these cases.

The generalization of our findings should be cautious. Future studies should examine patients presenting other localization of cancer or being in other times of the disease course.

The sample size does not allow for a deeper investigation of associations in subsamples, such as various types of cancer. The cross-sectional nature of the design does not allow for causality inferences and limits the interpretation of the role of time. Future studies should use longitudinal design, specific statistical models to explore these connections globally, and higher sample size.

#### 4.2 | Clinical implications

Exploration of relationships between individuals' QoL and their internal psychobehavioral processes (coping strategies and time perspectives) and personality by using dyadic models should have several potential applications in clinical routine management for cancer patients-caregivers dyads. Developing a better understanding of the ways patients and their relatives interact together aids in the development of couple-focused interventions helping them to confront the disease and improve their QoL. These interventions seem more effective than individual interventions or usual care. Future studies should explore the efficacy on both patient and partner of specific approaches based on emphasizing the participants' expression of emotions, teaching on skill practices (coping, constructive communication), and/or learning speaker-listener role-taking.<sup>39</sup>

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## CONFLICT OF INTEREST

The authors declare that they have no competing interest.

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