Thoughts and Anticipations about Cancer: Psychometric Properties of a Questionnaire and Relationships with Psychological Symptoms

Adèle Jobin-Théberge[1,2], Claudia Mc Brearty[1,2], Guillaume, Foldes-Busque[1,3], Anne-Josée Guimond[1,2], Lynn Gauthier[2,4], Véronique Massicotte[1,2], and Josée Savard[1,2]

1. School of Psychology, Université Laval, Quebec, Canada; 2. Université Laval Cancer Research Center, Quebec, Canada;
3. Research Center of the Centre Intégré de Santé et de Services Sociaux de Chaudière-Appalaches, Lévis, Canada; 4.Faculty of Medicine, Université Laval, Quebec, Canada

Background

- Western society encourages positive thinking as an effective way to cope with cancer.
- The literature supporting the efficacy of cognitive-behavioral therapy indirectly suggests that realistic thinking would be an effective cognitive strategy.
- No tool has yet been validated to compare the effects of different thinking orientations on the psychological adjustment to cancer.
  - In this study, we used the scoring method developed by Churchill and Davis (2010) to categorize women into one of four thought orientations:

Negative thoughts		
Below median	**Above median**	**Positive thoughts**
Not Future-oriented	Negative	**Below median**
Positive	Realistic	**Above median**

Objectives

- To assess the psychometric properties of the Thoughts and Anticipations about Cancer questionnaire (TAC; Gilbert et al., 2018).
- To evaluate the cross-sectional and prospective associations between the different thinking orientations and psychological symptoms before and after cancer treatment.

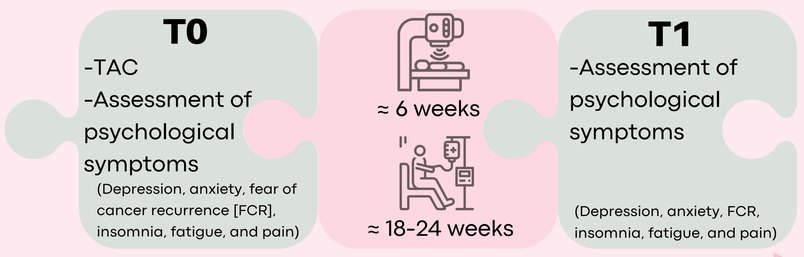
Hypotheses :

< (At T0 and T1)

> (At T0 and T1)

Methods

- Secondary analysis of three studies.
- All participants (N = 242) were females and treated for non-metastatic breast cancer.



Results

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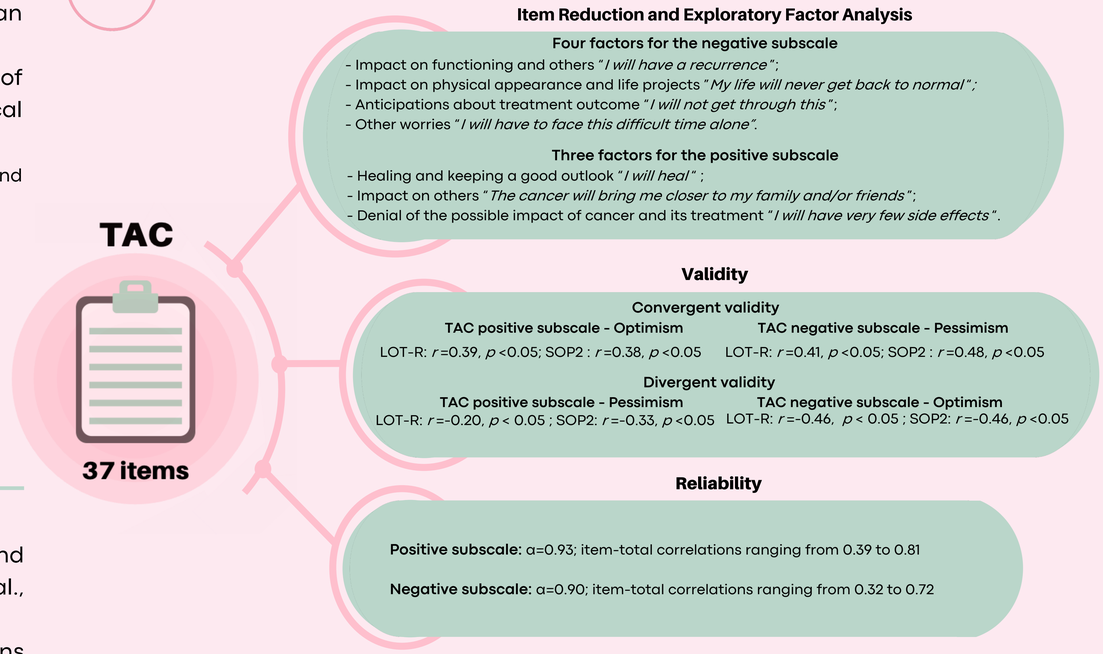
Figure 1. Results of the psychometric analyses



Note. LOT-R: The Life-Orientation Test-Revised; SPO2: The Optimism-Pessimism-2 Scale

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Table 1. Means for Thought Orientations by Symptom Levels Before (T0) and After (T1) Receiving Chemotherapy or Radiation Therapy

Symptoms	Positive (n=60) M		Negative (n=67) M		Realistic (n=53) M		Not future-oriented (n=44) M	
	T0	T1	T0	T1	T0	T1	T0	T1
Depression	0.25 b,c	0.27 b,c,d	0.33	0.35	0.35	0.37	0.29 b,c	0.32 c
Anxiety	0.36 b,c,d	0.24 b,c,d	0.53	0.52	0.54	0.45	0.56	0.57 c
FCR	0.24 b,c	0.27 c	0.36 c	0.34 c	0.46	0.46	0.24 b,c	0.23 b,c
Insomnia	0.25 b,c	0.28 b,c	0.33 c	0.37	0.41	0.37	0.23 b,c	0.25 b,c
Fatigue	0.22 b,c	0.28 b,c	0.31	0.38	0.35	0.42	0.23 b,c	0.27 b,c
Pain	0.14 b,c	0.20	0.22	0.24	0.20	0.22	0.14 b	0.22

Note.
b= significant difference with negative thought orientation at same point in time
c= significant difference with realistic thought orientation at same point in time
d= significant difference with not future-oriented at same point in time

Conclusions

Results of the psychometric analyses confirmed the reliability and validity of the 37-item version of the TAC.

Confirmed hypothesis: Patients with a **negative thought** orientation consistently had higher levels of psychological and psychophysiological symptoms when compared to those with a positive orientation at both time points.

T0: ↑ Depression, anxiety, FCR, insomnia, fatigue and pain (> positive)
T1: ↑ Depression, anxiety, insomnia and fatigue (> positive)
↓ FCR (< realistic)

Infirmed hypothesis: Patients with a **realistic thought** orientation reported greater symptoms than those with a positive orientation at both time points.

T0: ↑ Depression, anxiety, FCR, insomnia, fatigue and pain (> positive)
T1: ↑ Depression, anxiety, FCR, insomnia and fatigue (> positive)

No *a priori* hypothesis: Results revealed that **not future-oriented** women had less severe psychological and psychophysiological symptoms than those with a negative or realistic orientation at both time points.

T0: ↓ Depression, FCR, insomnia, fatigue and pain (< realistic and negative)
T1: ↓ Depression, anxiety, FCR, insomnia and fatigue (< realistic)
↓ FCR, insomnia and fatigue (< negative)
↑ Depression and anxiety (> positive)

It remains to be clarified whether the same differences would be observed with a longer follow-up and when considering the occurrence of unexpected events during the cancer care trajectory.