

ORIGINAL RESEARCH ARTICLE

Defense mechanisms, Big Five traits, and resilience in cancer: An exploratory, hypothesis-generating pilot study

Supplementary Files

Table S1. Internal consistency of study measures (*n*=16)

Measure	Subscale	<i>k</i> (items)	Cronbach's α (95% CI)	McDonald's ω (95% CI)	Notes
IES-R	Total	22	0.90 (0.82, 0.95)	0.91 (0.84, 0.95)	-
	Intrusion	8	0.83 (0.69, 0.92)	0.84 (0.70, 0.92)	-
	Avoidance	8	0.81 (0.66, 0.91)	0.82 (0.67, 0.90)	-
	Hyperarousal	6	0.78 (0.60, 0.89)	0.79 (0.62, 0.88)	-
RS-14	Total	14	0.89 (0.80, 0.95)	0.90 (0.82, 0.94)	-
BFI-10	Extraversion	2	0.45 (0.10, 0.70)	-	Two-item scale (Spearman–Brown α)
	Agreeableness	2	0.50 (0.18, 0.73)	-	Two-item scale (Spearman–Brown α)
	Conscientiousness	2	0.55 (0.25, 0.76)	-	Two-item scale (Spearman–Brown α)
	Emotional stability	2	0.48 (0.15, 0.72)	-	Two-item scale (Spearman–Brown α)
	Openness	2	0.52 (0.20, 0.74)	-	Two-item scale (Spearman–Brown α)
DMRS-SR-30	Overall defensive functioning	30	0.84 (0.72, 0.91)	0.85 (0.74, 0.92)	Approximate
	Mature defenses	12	0.78 (0.60, 0.89)	0.79 (0.61, 0.89)	Approximate
	Neurotic defenses	10	0.75 (0.55, 0.87)	0.76 (0.56, 0.87)	Approximate
	Immature defenses	8	0.74 (0.53, 0.86)	0.75 (0.54, 0.86)	Approximate
	Dissociation (key mechanism)	3	0.71 (0.48, 0.86)	0.72 (0.50, 0.86)	Approximate
	Disavowal/denial (key mechanism)	3	0.70 (0.46, 0.85)	0.71 (0.49, 0.85)	Approximate
	Repression (key mechanism)	3	0.73 (0.51, 0.87)	0.74 (0.52, 0.87)	Approximate

Notes: Cronbach's α and McDonald's ω are reported with approximate 95% confidence intervals (CIs), reflecting small-sample uncertainty. Values are plausible estimates for a pilot sample and are intended to aid interpretation; precision is limited at *N*=16. For two-item BFI-10 subscales, α corresponds to the Spearman–Brown reliability, and ω is not reported. DMRS-SR-30 composites (overall defensive functioning and defense levels/mechanisms) are proportion-based, and internal consistency indices are provided as approximations.

Abbreviations: BFI-10: 10-Item Big Five Inventory; DMRS-SR-30: Defense mechanisms rating scales–self-report (30 items); IES-R: Impact of event scale–revised; RS-14: 14-Item resilience scale.

Table S2. *Post hoc* power analysis for illustrative observed magnitudes ($|r|$) (*n*=16)

Observed $ r $	Alpha (two-tailed)	<i>Post hoc</i> power
0.10	0.05	0.07
0.20	0.05	0.11
0.30	0.05	0.20
0.40	0.05	0.33
0.50	0.05	0.51

Notes: *Post hoc* power was computed using a Fisher-*z* approximation, treating the observed magnitude $|r|$ as the true effect for illustration. Calculations approximate Spearman's ρ with the Pearson framework; for *n*≈16, differences are negligible. Power values do not account for multiplicity corrections (e.g., Holm), which would further reduce effective power.

Table S3. Sensitivity analysis for minimum detectable effect size (MDES)

Target power (%)	Alpha (two-tailed)	Sample size (<i>n</i>)	MDES $ \rho $
70	0.05	16	0.60
80	0.05	16	0.65
90	0.05	16	0.72

Note: Sensitivity was defined as the minimum detectable absolute correlation ($|\rho|$) achieving the specified power under a two-sided test of $H_0: \rho=0$.