

# Fertility preservation and quality of life among adolescent and young adult cancer patients from across Europe

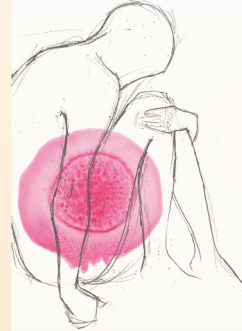
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## Why fertility, why this study?

Compromised fertility in young people is one of the most life-altering late effect of cancer, affecting domains from sexuality and body image to self-esteem and quality of life (Logan and Anazodo 2019). While there exist evidence-based international guidelines for fertility preservation (FP) (Lambertini et al. 2020), there is no standardized way of implementing these guidelines within and between countries across Europe. We aimed to better understand young people's awareness to FP and its relationship to QOL and mental health.



## Sample overview

**Complete N:** 637 (332 or 52.1% female)

**Age at diagnosis:** 24.8 (SD=5.54) years

**Currently in treatment:** 403 (63.3%)

**Geographic representation:** 47 countries, all 27 EU

## Method

### WHO?

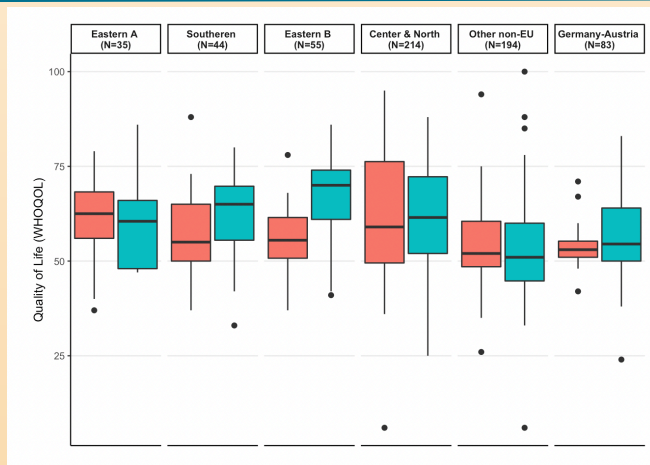
- Anyone from wider European region diagnosed with cancer between 15 – 39 years of age

### HOW?

- Expert panel consultations
- Cross-sectional online survey following CHEERIES guidelines

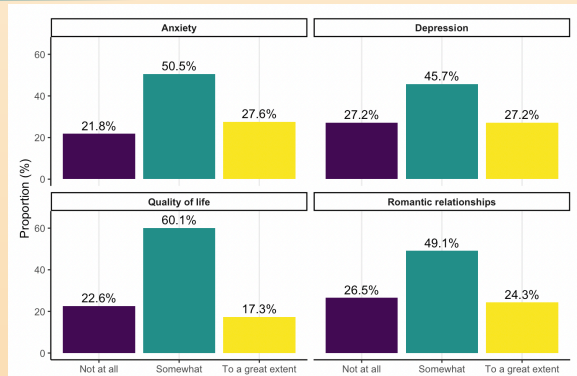
### ANALYSIS:

- Descriptive summaries
- Multilevel linear models
- Pre-registered at: <https://osf.io.t9h82/>



**FIG. 1: Quality of life by country cluster and fertility discussion**

A multilevel linear model, adjusted for age at diagnosis, sex, current treatment status. Eastern European countries B were the only country cluster where fertility discussions showed significant association with the level of psychological distress ( $t = -2.129, p = 0.0337$ ).



**FIG. 2: Impact of fertility-related concerns on anxiety, depression, quality of life, and romantic relationships**

Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
• Austria • Germany	• Benelux • Denmark • Finland • France • Ireland • Sweden • UK	• Cyprus • Greece • Italy • Malta • Portugal • Spain	• Bulgaria • Hungary • Latvia • Lithuania • Slovakia • Romania	• Croatia • Czechia • Estonia • Poland • Slovenia	• All remaining: • Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Norway, Russia, Serbia, Turkey, Tajikistan, Ukraine, Uzbekistan

Country clusters based on Ferreira et al., 2018

## Patient impact & Conclusions

Significant cancer-related fertility inequalities exist among AYA cancer patients and survivors between countries and healthcare systems within Europe. Accessible FP programs should become an integral part of cancer rehabilitation for AYAs and should actively include them in the development of any novel guidelines. AYAs' mental health and quality of life may be compromised by fertility-related distress and should be monitored throughout the cancer continuum.



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