

# FACTORS THAT AFFECT SEXUAL FUNCTION IN SURVIVORS OF HEMATOLOGICAL MALIGNANCY AND AUTOLOGOUS HEMATOPOIETIC STEM CELL TRANSPLANTATION

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## Introduction

Sexual dysfunction following autologous hematopoietic stem cell transplantation (AHSCT) for hematological malignancies is common and affects survivors' quality of life.

Sexuality is recognized as an important aspect for hematopoietic stem cell transplantation (HSCT) survivors' quality of life, even in the first years after the transplantation.

Current literature has examined sexual function after HSCT, compared to the time before transplantation or with that of the general population. Survivors report a decrease in sexual activity, satisfaction, and loss of sexual desire, even five to 10 years after HSCT. Nevertheless, most studies assessed sexual function after allogeneic HSCT, while there is a scarcity of studies that assess sexual function after AHSCT.

The aim of the study was to evaluate the factors affecting sexual function (SF) of survivors of hematological malignancy and AHSCT.

## Methods

A multicenter, quantitative, cross-sectional, descriptive and correlational study was conducted.

Through convenience sampling, 127 adults (56 women and 71 men) and sexually active survivors of hematological malignancy who underwent AHSCT from 6 months to 5 years were recruited, from 5 hospitals in Athens, Greece.

Data collection lasted from December 2019 to March 2022.

Survivors completed demographic and clinical data, a male or female SF assessment tool [International Index Erectile Function (IIEF) and Female Sexual Function Index (FSFI) respectively], the cancer locus of control scale (CLOC) and the impact of event scale-revised (IES-R).

A total of 145 survivors who met the inclusion criteria were approached, and the response rate was 87.6%.

All statistical analyzes were performed with the statistical package SPSS version 21.00 (IBM Corporation, Somers, NY, USA).

All tests were two-sided. A p-value<0.05 was defined as the level of statistically significant difference.

## Results

Survivors' mean age was 45.6 ( $\pm$ 12.8) years. Female survivors had an average age of 44 years and male survivors 47 years.

The median time from transplant was 3 years and the majority had Hodgkin's lymphoma.

There was a statistically significant association between survivors' SF and age ( $p<0.0005$ ), functional status ( $p<0.0005$ ), having children ( $p<0.0005$ ), education ( $p<0.0005$ ) and diagnosis ( $p<0.0005$ ).

In women there was also a statistically significant association between SF and menopausal status ( $p<0.0005$ ) and in men there was also statistically significant association with the years since transplantation ( $p=0.006$ ).

There was a low to moderately negative statistically significant correlation between the IES-R and the FSFI and the IIEF. Multivariate hierarchical analysis showed that age ( $p<0.0005$ ), the "intrusion" subscale of the IES-R ( $p=0.003$ ) and the "cause of illness" subscale of the CLOC ( $p=0.075$ ) had a statistically significant effect on the overall FSFI score.

Education ( $p<0.0005$ ), diagnosis ( $p=0.032$ ), "avoidance" subscale of the IES-R ( $p=0.032$ ) and "cause of illness" subscale of the CLOC ( $p=0.059$ ) had a statistically significant effect on the overall IIEF score, based on the multivariate analysis.

Limitations of this study include its cross-sectional design, the sampling technique, and the small sample. The strict inclusion criteria, the few centers of HSCT in Athens, and the COVID19 pandemic, with the restrictions on social life and in hospitals, also contributed to limited participants. Yet, the response rate was high due to the careful approach of survivors, alongside their doctor or nurse. The measurement tools were valid and reliable and it is the first study in Greece that dealt with sexual function after AHSCT and one of the few that exist in contemporary world literature.

## Conclusions

Factors that could be predictive of the occurrence of sexual dysfunction in survivors of hematological malignancy and AHSCT were age, education, diagnosis of multiple myeloma, post-traumatic stress and cancer locus of control.

Assessing survivors' SF is complex due to its multifactorial influence by individual and disease characteristics.

Further assessment of SF and the investigation of the factors that mediate and influence it are of major importance for the implementation of integrated health care plans in survivorship.

## References

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