FROM GYN ONC DIAGNOSIS TO FERTILITY PRESERVATION: INVESTIGATING THE BIASES THAT LIMIT ONCOFERTILITY CARE IN REPRODUCTIVE AGE WOMEN

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Background
Fertility preservation is an important part of oncologic care for newly diagnosed gynecologic cancers for reproductive age women, as many treatment options negatively impact fertility. Implicit biases held by gynecologic oncologic physicians can unintentionally impact practice patterns related to referrals for fertility preservation [1].
Objective
The goal of this study is to examine factors that influence access to fertility specialists for women with newly diagnosed gynecologic cancer.
Materials and Methods
This institutional review board approved, retrospective cohort study investigated the impacting factors on referral rate from gynecologic oncologists (gyn onc) to reproductive endocrinologist and infertility (REI) specialists at a single academic institution between 2010-2022. Patients included were age 18-41 at time of gyn onc diagnosis. Electronic medical records (EMR) were used to identify demographics and fertility trends. Categorical factors were summarized using frequencies and percentages and were compared using Pearson's chi-square tests or Fisher's exact tests. Mixed logistic models were utilized to control cluster effects of physicians.
Results
Of 816 patients reviewed, 414 met criteria for inclusion. Of the patients with newly diagnosed gyn malignancies, 14.6% were referred to REI. Only 45.6% of patients had fertility desire documented in their gyn onc consult note. A total of 42.7% had fertility sparing treatment offered by a gyn onc. Younger patients were more likely to have an REI referral ($p<0.001$). Those who had ovarian cancer (epithelial, peritoneal, tubal) were significantly more likely to have a REI referral compared to other gyn oncology cancers ($p=0.044$). The REI referral does not significantly change the time to treatment ($p=0.44$).
In the mixed effect model, REI referral was more likely to be placed if that patient had no living children, no past medical history, or the referring gyn onc physician was female (OR =11.46, 6.69, and 3.8 respectively) (Table 1).
There was no difference in REI referral based on race, ethnicity, smoking status, BRCA status, or past surgical history.
Conclusions
This study demonstrates many implicit biases that may influence fertility care for patients with newly diagnosed gyn onc cancer. Fertility goals were not documented by the gyn onc for 54.3% of new gyn onc visits, which demonstrates a huge opportunity to increase conversations of fertility.
Given that time from gyn onc diagnosis to oncologic intervention is not significantly different whether fertility interest was documented or not, an opportunity exists for accessing fertility preservation without impacting oncologic care. By demonstrating these biases in REI referral patterns, we can optimize provider education to enhance fertility care coordination.
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References

1. Stewart K et al. Fertility considerations prior to conservative management of gynecologic cancers. Int J Gynecol Cancer. 2021 Mar;31(3):339-344. doi: 10.1136/ijgc-2020-001783. Epub 2020 Nov 11. PMID: 33177151.

Table 1: Mixed logistic model predicting referral placement

Factor	OR	95% CI	p-value
Living children	.	-Reference-	
No living children	11.46	(2.28, 57.61)	***0.004***
Past medical history	.	-Reference-	
No past medical history	6.69	(1.71, 26.23)	***0.007***
Male Gyn Onc	.	-Reference-	
Female Gyn Onc	3.80	(1.04, 13.85)	***0.043***

OR: Odds Ratio, CI: confidence interval