

Commentary: Fertility Counseling for Rural Reproductive Cancer Patients in the U.S.: Challenges and Potential Solutions

Bridget G Kelly*, Bhakthi Sahgal, Alvaro A Rivera-Andrade and John F Russell

The George Washington University, United States of America

***Corresponding Author:** Bridget G Kelly, Doctor of Public Health Program, The George Washington University, United States of America.

Received: October 31, 2023; **Published:** November 16, 2023

Abstract

The potential of cancer treatment-related infertility can be devastating for women of reproductive age with the desire for future biological children. This prognosis is often met with emotional distress, fear, anxiety, and depression and can adversely affect treatment decisions. Fertility preservation counseling prior to the commencement of reproductive cancer treatments has been associated with an increase of quality of life and emotional well-being; however, disparities in access exist for women newly diagnosed with cancer and residing in rural areas in the United States compared to their urban counterparts. Arguments can therefore be made for expanding access to telehealth fertility preservation counseling for women of reproductive age following a reproductive cancer diagnosis. There is an opportunity to further research the barriers and facilitators to adoption of telehealth fertility preservation counseling for women newly diagnosed with reproductive cancer in rural settings and explore if this type of telehealth intervention can help alleviate the emotional distress caused by the potential of fertility loss.

Keywords: *Reproductive Cancer; Treatment-Related Fertility Loss; Fertility Preservation Counseling; Telehealth; Survivorship; Rural America*

Introduction

A reproductive cancer diagnosis can be devastating for a woman with a desire for future biological children. Reproductive cancers present as a large burden among women in the United States [1], with the most prevalent types including: breast, cervical, ovarian, uterine, vulvar, and endometrial [2]. While survival rates for women with these cancers is steadily increasing due to advancements in the field of oncology [3], it is essential to highlight that medical treatment for survival has significant adverse effects on female reproductive capacity. For the hundreds of thousands of women with reproductive cancers, treatment-related infertility can stem from surgical procedures involving partial or complete removal of the reproductive organs, gonadotoxic chemotherapy treatments, and/or radiotherapy, which can induce sterility in high doses [4]. Additionally, there are considerable disparities in awareness of the adverse effects of treatment-related infertility in rural settings compared to urban, limiting a woman's ability to make the most informed decision about her treatment and future family opportunities [5].

Treatment-related fertility loss

Recent studies indicate that for reproductive-aged women, facing potential infertility may be more devastating than the cancer diagnosis or treatment [6]. Potential fertility loss is related to emotional distress, fear, anxiety, and depression [7]. Moreover, research suggests

that infertility concerns can adversely affect treatment decisions [8,9]. Conversely, the intention to conceive after cancer treatments is associated with improved quality of life in reproductive age women with cancer [10]. As one study found that at least 75 percent of cancer survivors who were childless at diagnosis desire future offspring [11], fertility preservation counseling from the initial cancer diagnosis can be important to improving the quality of life of many reproductive age women with cancer.

Fertility preservation counseling

The provision of fertility preservation counseling has been shown to be beneficial in informing treatment choices and enhancing the emotional health of women experiencing infertility distress [12]. Regrettably, less than half of young adult cancer patients receive such counseling [13], thereby affecting the quality of life and emotional well-being for those who go without. Even though cancer treatment-related infertility is frequent, patients encounter challenges receiving guidance. Doctors might not initially prioritize discussions about the associated risks of fertility loss and regard it as a secondary concern in comparison to survival of the patient [14,15]. Failing to inform women facing reproductive cancer treatment about the potential infertility risks may result in missed opportunities to consider fertility preservation measures [16]. Therefore, it is important that clinicians counsel reproductive cancer patients on this critical issue of fertility preservation [17]. Several guidelines for fertility preservation have been formulated, alongside numerous reviews of fertility preservation strategies [18]; however, the experience of women, particularly those living in rural areas undergoing reproductive cancer treatment, could be further explored.

Infertility and its related distress is a critical issue that must be addressed through counseling to empower agency and patient-centered decision making. In the United States, fertility preservation counseling programs for reproductive cancers have undergone significant development over time. Programs now provide comprehensive and patient-centered fertility counseling services that cover both pre- and post-cancer treatment phases, including a thorough evaluation of fertility status and in-depth conversations about diverse parenthood options following cancer [19]. The programs also facilitate convenient access to an extensive range of fertility preservation techniques through collaborative partnerships with affiliated or third party healthcare facilities [20].

Access to fertility preservation counseling for women in rural America

Access to oncologic care in general in rural areas is hindered by several barriers leading patients to poorer outcomes, including higher mortality rates [21]. Differences exist for women living in rural areas compared to those living in urban settings with regard to their abilities to access fertility preservation counseling and services [21]. In rural settings, limited healthcare infrastructure and specialized facilities can make it geographically inaccessible. Financial constraints can also pose a challenge, as travel expenses for oncologic care can be prohibitive for individuals residing in rural areas. Moreover, patients living in areas with limited access to specialized care might be less aware and educated about fertility preservation services [22]. Therefore, overcoming these barriers requires undertaking efforts to expand access, improve affordability, and enhance awareness.

In order to provide fertility preservation counseling for more women diagnosed with reproductive cancers, options for greater access must be expanded. Over the past decade, a growing body of research has highlighted how psycho-educational interventions using telecommunication and telehealth technologies for cancer patients may reduce emotional distress and improve their quality of life [23]. Additionally, telehealth has been presented as an effective tool for providing care for people in rural areas and approaching sensitive issues such as fertility; therefore, web-based educational interventions seem appropriate for the topic of fertility preservation counseling following a cancer diagnosis [24]. Such evidence lays the groundwork for investments in telehealth fertility preservation counseling options as a part of cancer treatment plans for female patients of reproductive age residing in rural areas of the United States.

Recommendations

Expanding access to these arguably vital services requires pilot investments and further research to understand the barriers and facilitators to adoption of telehealth fertility preservation counseling for women newly diagnosed with reproductive cancer in rural settings. Interventions must be evaluated for their ease of access, affordability, and acceptability to both patients and providers. Finally, greater research is needed to determine whether this type of telehealth intervention can help alleviate the emotional distress caused by the potential of fertility loss among cancer patients undergoing treatment.

Bibliography

1. Office of Population Affairs. "Reproductive Cancers" (2023).
2. Center for Disease Control and Prevention. "Basic Information About Gynecologic Cancers" (2023).
3. Rodriguez-Wallberg KA. "Principles of Cancer Treatment: Impact on Reproduction". *Reproductive Health and Cancer in Adolescents and Young Adults*, edited by G. Quinn and S. Vadaparampil, Springer (2012): 1-9.
4. Levit LA., et al. "Closing the Rural Cancer Care Gap: Three Institutional Approaches". *JCO Oncology Practice* 16.7 (2020): 422-430.
5. Vitale SG., et al. "The Importance of Fertility Preservation Counseling in Patients with Gynecologic Cancer". *Journal of Reproduction and Infertility* 18.2 (2017): 261-263.
6. Rosen A., et al. "Psychosocial Distress in Young Cancer Survivors". *Seminars in Oncology Nursing* 25.4 (2009): 268-277.
7. Partridge AH., et al. "Web-based Survey of Fertility Issues in Young Women with Breast Cancer". *Journal of Clinical Oncology* 22.20 (2004): 4174-4183.
8. Ruddy KJ., et al. "Prospective Study of Fertility Concerns and Preservation Strategies in Young Women with Breast Cancer". *Journal of Clinical Oncology* 32.11 (2014): 1151-1156.
9. Letourneau JM., et al. "Pretreatment Fertility Counseling and Fertility Preservation Improve Quality of Life in Reproductive Age Women with Cancer". *Cancer* 118.6 (2012): 1710-1717.
10. Schover LR. "Patient Attitudes Toward Fertility Preservation". *Pediatric Blood and Cancer* 53.2 (2009): 281-284.
11. Chan JL., et al. "Regret around Fertility Choices is Decreased with Pre-Treatment Counseling in Gynecologic Cancer Patients". *Journal of Cancer Survivorship* 11 (2017): 58-63.
12. Bray F., et al. "The Ever-increasing importance of cancer as a leading cause of premature death worldwide". *Cancer* 127.16 (2021): 3029-3030.
13. Pereira N and Schattman GL. "Fertility Preservation and Sexual Health After Cancer Therapy". *Journal of Oncology Practice* 13.10 (2017): 643-651.
14. National Cancer Institute. "Female fertility issues and cancer - side effects" (2020).

15. Schover LR. "Sexuality and fertility after cancer". *Hematology* 1 (2005): 523-527.
16. American Cancer Society. Preserving fertility in females with cancer (2020).
17. Carter J., *et al.* "Gynecologic cancer treatment and the impact of cancer-related infertility". *Gynecologic Oncology* 97.1 (2005): 90-95.
18. Poorvu PD., *et al.* "Cancer Treatment-Related Infertility: A Critical Review of the Evidence". *JNCI Cancer Spectrum* 3.1 (2019): pkz008.
19. MD Anderson Cancer Center. "Oncofertility Program" (2023).
20. Dana Farber Cancer Institute. "Adult Fertility (Oncofertility) Preservation Program" (2023).
21. Meernik C., *et al.* "Disparities in fertility preservation use among adolescent and young adult women with cancer". *Journal of Cancer Survivorship* 17.5 (2023): 1435-1444.
22. Levit LA., *et al.* "Closing the Rural Cancer Care Gap: Three Institutional Approaches". *JCO Oncology Practice* 16.7 (2020): 422-430.
23. Bártolo A., *et al.* "Effectiveness of Psycho-educational Interventions with Telecommunication Technologies on Emotional Distress and Quality of Life of Adult Cancer Patients: A Systematic Review". *Disability and Rehabilitation* 41.8 (2019): 870-878.
24. Micaux C., *et al.* "Efficacy of a Web-Based Psychoeducational Intervention for Young Adults with Fertility-Related Distress Following Cancer (Fex-Can): Randomized Controlled Trial". *JMIR Cancer* 8.1 (2022): e33239.

Volume 12 Issue 12 December 2023

©All rights reserved by Bridget G Kelly, *et al.*