

# Patient satisfaction with direct telegenetic counseling for prenatal indications compared to hereditary cancer indications

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## I. Introduction

Telegenetic counseling is an alternative service delivery model that has been used since 2005 in our organization. Patients have been referred by their physician for telegenetic counseling for various indications including prenatal and hereditary cancer. Significant advances in technology have occurred over recent years that have led to increased patient access to high speed internet and personal devices such as computers, tablets and cell phones. These advances allowed for the development of direct telegenetic counseling (dTGC) services, providing telegenetic counseling to patients using their own device in their homes using. The patient and genetic counselor interact through an audio and video connection in which visual aids are shared. The purpose of this study was to evaluate patient satisfaction for patients seen by dTGC who were referred for prenatal indications compared to those referred for hereditary cancer indications.

## II. Methods

The study data was collected from dTGC patients who were sent an online survey at the conclusion of their dTGC appointment. During Q1 2020, 124 prenatal patients and 68 cancer patients completed the survey. The survey contained 10 statements designed to assess overall patient satisfaction; 7 validated for the clinical genetics setting and 3 statements specifically about the technology. A Likert scale allowed the patient to express agreement with a statement with 1 being strongly disagree and 5 being strongly agree. Averages were calculated in each group for each statement with comparisons between the groups evaluated using the t-test to determine significance.

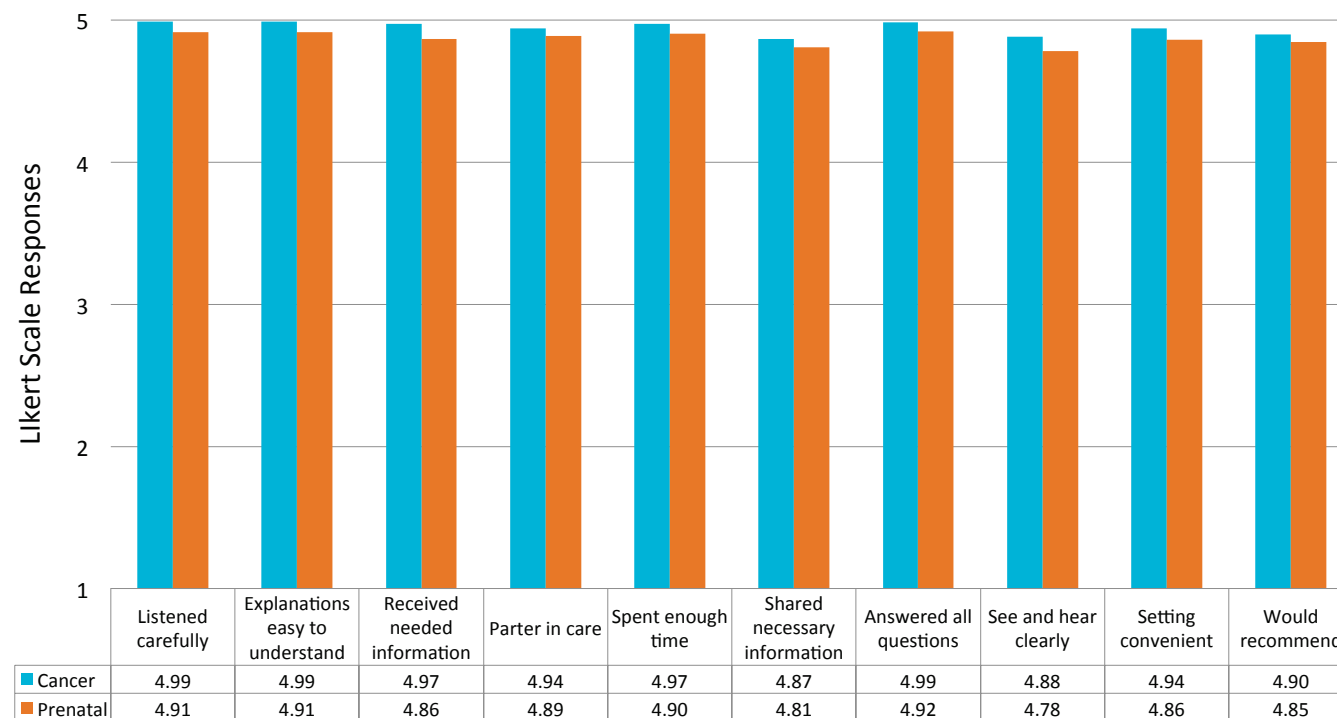
**Table 1: Survey statements evaluated by Likert scale**

Survey Statements
My genetic counselor listened carefully to what I said.
My genetic counselor explained things in a way that was easy to understand.
I received the information I needed from my genetic counselor.
My genetic counselor helped me feel like a partner in care.
My genetic counselor spent enough time with me.
I was able to share all the necessary information with my genetic counselor.
My genetic counselor answered all my questions.
I was able to hear my genetic counselor clearly and see the information that was presented.
The setting for my genetic counseling was convenient for me.
I would recommend this genetic counseling service to a friend or colleague.

## III. Results

Overall, both groups expressed extremely high satisfaction with the dTGC experience with no statistically significant difference in the responses when comparing the groups. For the statement, “My genetic counselor helped me feel like a partner in care,” prenatal patients scored 4.89 and cancer patients scored 4.94. Both groups scored over 4.9 for statements about the counselor listening carefully, answering all questions, explaining things in a way that was easy to understand, and spending enough time with the patient. While both groups responded positively to the question, “I received the information I needed from my genetic counselor” cancer patients scored significantly higher compared to prenatal patients (4.97 vs 4.86;  $p < 0.01$ ). While cancer patients were older (average: 44.8 years of age) than prenatal patients (average: 34.3 years of age), there was no statistically significant difference in responses when stratified by age.

**Figure 1. Average response to each statement**



## IV. Conclusions

The use of dTGC for both prenatal and cancer counseling was shown to be highly effective across all aspects of the experience. Counseling type and patient age did not significantly affect genetic counseling patient satisfaction. Providing services to patients at home has many potential benefits: improves access to services; provides a safe option with social distancing restrictions; allows for services to geographically distant patients. By using technology that mirrors an in-person experience, patients were able to experience all aspects of the patient- counselor interaction, which likely impacted the overall satisfaction.