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Examining the Differences in Rapport between Male and Female Cancer Genetic Counselors and Female Clients

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Examining the Differences in Rapport Between Male and Female Cancer Genetic
Counselors and Female Clients

by

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Bachelor of Science
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Submitted in Partial Fulfillment of the Requirements

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Abstract

Genetic counseling is a field in which client-counselor rapport plays a critical role in client satisfaction with the genetic counseling process. One factor that may impact this rapport is gender of the genetic counselor. Previous studies in the field of psychological counseling suggest that gender is not a significant moderator of this rapport. To the best of our knowledge, no study has been published in the field of genetic counseling examining the impact that the gender of the genetic counselor has on client-counselor rapport. To study this effect, an amended version of Horvath & Greenberg's (1989) Working Alliance Inventory tool was employed to survey clients of male and female cancer genetic counselors at The Ohio State University. Respective questions measured Goal, Task, and Bond score, as well as overall WAI score. The final study sample consisted of 45 female clients of two cancer genetic counselors, one of each gender. A repeated measures ANOVA with a Greenhouse-Geiser correction determined that gender of the genetic counselor was shown not to be a statistically significant moderator of overall WAI score. The study did show, however, that genetic counselors self-reported significantly higher Total WAI scores than their clients ($p = .024$), specifically with regards to Bond score ($p = .002$). Our study showed that the genetic counselors had a more positive view of the effectiveness of the sessions, particularly with respect to rapport, than their clients had. This suggests that genetic counselors may benefit from using tools like this one in order to self-assess their sessions more effectively. By doing so, rapport between themselves and their clients may theoretically improve from the

perspective of the clients, leading to a more enriched and satisfying experience for both parties.

Keywords: Genetic counseling, gender, rapport, psychology, working alliance, self-assessment

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Chapter 1. Background

1.1 Genetic Counseling

According to the National Society of Genetic Counselors (NSGC), “Genetic counseling is the process of helping people understand and adapt to the medical, psychological and familial implications of genetic contributions to disease” (Resta et al., 2006, p. 79), which includes interpretation of medical and family histories, education about topics such as inheritance, testing and prevention, and counseling to promote informed choices regarding the condition. Individuals with a personal or family history that may be suggestive of hereditary cancer are candidates for cancer genetic counseling. The National Comprehensive Cancer Network (NCCN) has published guidelines for physicians to follow to refer patients to genetic counseling. The criteria for referral for one of the most prevalent cancer syndromes, Hereditary Breast and Ovarian Cancer (HBOC) syndrome, includes characteristics such as onset of breast cancer before the age of 50; male breast cancer; an individual who has breast cancer and first-, second- or third-degree relatives with cancers suggestive of hereditary disease such as ovarian or pancreatic cancer; or a patient who is unaffected with cancer themselves but has a family history suggestive of the syndrome (NCCN, 2013). Other cancer syndromes exist which have a hereditary component and affect both males and females, such as Lynch syndrome, which predisposes to colorectal and gastric cancer, among others. The cancer genetic counseling process attempts to elicit personal and family histories of cancer and other medical conditions from clients, educate clients on the hereditary nature of some

cancers, and explain to clients possible actions important for their medical management. Blier, Atkinson, & Geer (1987) found four primary concerns that categorized patients' reasons for seeing a psychological counselor: personal (social, self-understanding), assertiveness (independence), vocational (career adjustment), and academic concerns. Personal concerns overlapped with any other concerns in all subjects, suggesting that subjects often have a personal reason for seeking counseling, regardless of what that reason is.

We believe that cancer genetic counseling may be seen as a combination of a client's personal and assertiveness concerns. Most if not all of cancer genetic counseling is personal in the sense that even if an individual being seen for counseling is unaffected, their family history is still personal to them. If a client comes into the session and knows already that he/she wishes to be tested for a particular mutation that predisposes to a cancer syndrome, this could fall into the assertiveness category, as the patient may request testing directly from the counselor regardless of any other management options being offered.

Hobbs, Smith, George, & Sellwood (1980) conducted a study that compared characteristics of three different groups of women: those who were invited to participate in breast screening practices and accepted, those who were invited and declined, and those who self-referred for the screening. Those women who self-referred tended to be younger, more educated, and in a higher social class in addition to believing that screening practices played a role in preventing cancer. We believe that some corollaries can be drawn between screening and genetic counseling. Assertive patients who believe their family history of cancer could put them at personal risk of developing cancer

themselves may be more likely to inform their physician about their family history and more likely to present for genetic counseling when an appointment is made.

1.2 Client-Counselor Rapport and Its Effect on Client Satisfaction

Veach, Bartels, & LeRoy (2007) described a consensus conference convened to define the models of practice of the genetic counseling process based on the viewpoints of 23 directors of genetic counseling programs in North America. Among the tenets listed by the participants, "Relationship is integral to genetic counseling" (Veach et al., 2007, p. 721) was viewed as one of the key beliefs held by that group. The goals of that tenet were to establish a strong working relationship between the genetic counselor and the client, for good communication to exist between the genetic counselor and the client, and for the genetic counselor to have the knowledge and ability to build rapport between herself or himself and the client. This rapport, or the dynamic relationship between the genetic counselor and the client, is integral to client satisfaction with the session and the genetic counseling process. Rapport is partly built through the use of psychosocial techniques, such as unconditional positive regard and empathy (Weil, 2000). Overall, a central philosophy of genetic counseling is the client-centered model (Veach, LeRoy, & Bartels, 2003). Two components of rapport are "a mutual agreement of goals and tasks" (Uhlmann, Schuette, & Yashar, 2009, p. 137), and meeting client expectations. When the relationship or working alliance is built, the client is more likely to feel that his/her expectations for the session are met (Uhlmann et al., 2009).

1.3 Gender and Gender Roles and Their Effect on Counseling

1.3.1. Gender versus gender role. Several studies were conducted in the 1980s that suggest that rapport may be more a product of gender roles in a session rather than

strictly an influence of the gender of the participants. Highlen and Russell (1980) published a study that analyzed psychological counselors' gender roles as opposed to actual gender and how they related to counselor-client rapport. Upon being presented three different counselor descriptions, the subjects were asked to assign one of the following sex roles: masculine, feminine, or androgynous. The subjects were also asked if the different counselor descriptions matched the sex role terms; all subjects unanimously agreed that this was the case. The study showed that feminine and androgynous sex roles had higher ratings than a masculine sex role in clients' rating of counselors. The study also showed that clients' sex role had no impact on counselor preference. Blier et al. (1987) published a similar study showing how clients' particular concerns impacted which sex role in a psychological counselor they preferred. The study used the masculine, feminine, and androgynous sex roles from the Highlen & Russell (1980) study and assigned them to both male and female counselor images. The feminine sex role was rated higher than the masculine sex role for personal concerns, and the converse was true for assertiveness concerns. Masculine and androgynous sex roles were rated higher than the feminine sex role for academic concerns. In a later study, Nelson (1993) confirmed the previous two studies' findings. Results were inconclusive as to whether counselor gender or client gender affected the psychological counseling process or outcome. Results of the study suggested that the clients' particular problem influenced whether the client would have a better outcome with a male or female counselor.

1.3.2. Gender influence on patient-physician rapport. With regards to counseling performed by a physician, Henderson & Weisman (2001) found that female gender among physicians was associated with a greater likelihood of both male and

female patients receiving preventative counseling. Additionally, female patients preferred more gender-specific screening; meaning that women preferred female physicians when presenting for female-specific care such as mammograms. Overall, the study found that the largest difference in scores between male and female physicians was in "counseling on sensitive topics for both men and women" (Henderson & Weisman, 2001, p. 1289), for which female physicians scored higher than male physicians.

A review of 46 meta-analyses conducted by Hyde (2005) supported the hypothesis that men and women are more similar than they are different, sharing psychological values on a variety of subjects. The author's Gender Similarities Hypothesis suggests that, despite a few exceptions, women and men are not as psychologically different as many research studies purport, and that these assumptions may have a cost, such as girls being treated differently as a result of an assumption they cannot perform as well as boys in a subject such as mathematics. These studies together suggest that client-counselor rapport in other healthcare settings may not depend on gender of the healthcare provider *per se*, but rather may be a function of gender *role*.

1.3.3. Differences between genders and effects on counseling. Much research has been performed on what makes the male and female psyche different, and how counselors might use that information to guide or tailor their counseling sessions with women and men to be more constructive and fulfilling for the client. Wester, Vogel, Pressly and Heesacker (2002) published a study which examined gender differences in emotions. Emotions can have a powerful influence on a counseling session. One body of published literature suggests that emotions can be thought of as being distinct between genders - that is, men's and women's sense of self and identity lead to distinct emotional

ranges that are different from the other gender. Wester et al. (2002) also considered a different school of thought that holds that individuals of both genders are capable of experiencing, and do experience, the same range of emotions and that these emotions are situation-dependent instead of gender-dependent. They concluded that the data studied did not support a gender-specific emotional framework. Overall, the authors found no significant difference between women and men in three areas of focus: outward behaviors; self-reflection and self-reporting of emotional feelings and responses; and physiological responses to different stimuli such as stress. The authors suggested implications for psychological counseling as a result; that counselors should be more mindful of factors such as context, both within and outside a session, instead of gender when thinking about the cause for a particular emotion or emotional response.

Preparing for and undergoing a genetic counseling session, particularly a cancer genetic counseling session, can be difficult for a client. Whether the client has a personal history of cancer, a family history of cancer, or both, the uncertainty and the gravity of the topic may leave a client emotionally vulnerable. Vogel, Wester, Heesacker and Madon (2003b) examined whether emotional vulnerability led to behavior typically expected of a particular gender, or a typical gender role. Their results showed that while men were more likely to display behaviors typical of the male gender role when in an emotionally vulnerable state ("exhibit(ing) fewer emotionally expressive behaviors, more emotionally restrictive behaviors, and more withdrawal behaviors" (Vogel et al., 2003b, p. 525)), women remained relatively stable in their behaviors across the study. This finding suggests that in a counseling session, even one that can be as emotionally

demanding as a cancer genetic counseling session, women should not be assumed to behave any differently than they would in a less stressful situation as a result.

In addition to the client's emotions and behavior based on emotions, the counselor makes adjustments before and throughout a counseling session that determine the course of the session. Vogel, Epting, and Wester (2003a) reviewed intake reports of a psychological counseling center to study how the counselor views his or her client, and whether or not client gender has an impact on that view. While overall the counselors' perceptions of male and female clients were quite similar, some differences were notable. Female clients were more often described as "vulnerable" and counselors focused on women's assertiveness more often than men's. Female counselors with female clients emphasized this theme of assertiveness most strongly (Vogel et al., 2003a). In a cancer genetic counseling session, these themes of vulnerability (being at increased risk to develop cancer based on a genetic change or a family or personal history of cancer) and assertiveness (the decision to pursue genetic testing for one of the genes predisposing one to cancer) may be present for clients.

Building rapport with a patient, responding to a patient's concerns, and forming a plan with which the patient is comfortable, and agrees to, are important in ensuring the patient's needs are met (Uhlmann et al., 2009). Patients presenting for cancer genetic counseling may be concerned about their family and/or personal history of cancer and may face uncertainty of either developing cancer or experiencing recurrence after undergoing treatment. Studying possible differences in client-counselor rapport between pairs of male genetic counselors with female clients and pairs of female genetic counselors with female clients may allow genetic counselors to work with patients more

effectively and promote better choices for individuals who have been diagnosed with cancer, or are at increased risk of developing cancer.

1.4 The Use of Tools in Counseling

1.4.1 Previous use of tools in genetic counseling. Research performed in the field of genetic counseling has utilized many different tools for self-reflection and improvement. Some of these have studied clients' understanding of their medical risks as a result of genetic counseling (Grimes & Snively, 1999); the effectiveness of family history questionnaires before genetic counseling sessions (Appleby-Tagoe, Foulkes, & Palma, 2012); and how elements of videotaped genetic counseling sessions might be analyzed effectively (Liede, Kerzin-Storarr, & Craufurd, 2000). Relatively little research has been performed using a survey tool regarding the clients' perception of the genetic counseling process as a whole and how genetic counselors can use information gained from such a study to provide better care and services to clients. One such study was performed at the Penn State Cancer Genetics Program by Kausmeyer et al. (2006). The instrument analyzed survey responses about factors such as the referral process, the genetic counseling experience, personal outcomes, follow-up, and overall impressions. As a result of the survey response analysis, the researchers gained information about what the program was doing well and areas for improvement, along with specific examples and suggestions from patients regarding ways to improve the experience. The information gave the Penn State Cancer Genetics Program areas in which to improve the quality of their service, but also is available for genetic counselors and other healthcare providers at other centers to review the results of the survey and adjust their own programs accordingly.

A study published by Stadler & Mulvihill (1998) utilized a survey tool to gauge genetic counseling clients' satisfaction, knowledge, and behavior. This survey was used primarily to improve the program service, as the study was performed within two years of the program's opening in a general academics center. The study yielded valuable results for the program. For example, after many clients responded that the size of the office space was important, the program moved its genetic counseling sessions to a larger room. The program was also able to take client suggestions into account by streamlining its process for obtaining patient records prior to the session, and was able to lessen the number of records requested, reducing the pre-session burden on the client. The authors suggested that these responses and reactions may be beneficial for other genetic counseling centers that are looking for areas in which they can improve. A study published by Davey, Rostant, Harrop, Goldblatt, & O'Leary (2005) used a survey tool to learn more about client expectations and satisfaction with the genetic counseling services at several clinics within a large region of western Australia. One finding was that clients reported being more satisfied with the genetic counseling process when a genetic counselor called them prior to the session, as this served to set the clients' expectations for what would happen during the session. This also allowed genetic counselors to gain an understanding of client concerns or psychological needs before the session, and tailor the session accordingly.

1.4.2. The Working Alliance Inventory. The Working Alliance Inventory, developed by Horvath & Greenberg (1989), is a validated tool which aims to measure the working alliance, or rapport, between a psychological counselor and a client. It has been used by many researchers over the years for a variety of purposes. Some of these include

studying the nature of the therapeutic relationship (Lambert & Barley, 2001); a review of therapist attributes and techniques (Ackerman & Hilsenroth, 2003); and research on alliance rupture and future suggestions for training psychotherapists (Safran, Crocker, McMain, & Murray, 1990).

The Working Alliance Inventory originally included 12 questions on a seven-point Likert scale, and asked both clients and therapists questions regarding ways of looking at the client's problem, the client's confidence in his or her therapist, and trust and appreciation between the client and therapist. The 12 questions were divided into three major categories, each measuring a different factor of the working alliance: Goal, Task, and Bond. The Goal score is comprised of questions asking participants about the mutual agenda agreed upon by both counselor and client. The Task score asks participants about how effectively they are taking steps to pursue those goals. The Bond score asks participants about the quality of the relationship between the counselor and the client. All three of these aspects are important for an effective relationship between a genetic counselor and his or her client. The tool was developed in order to separate out distinct factors in a counseling relationship that might be isolated and quantified in a research setting (Horvath & Greenberg, 1989, p. 231). By examining these factors individually, it should theoretically be easier for counselors to focus on specific areas for improvement in their sessions.

1.5 Need for the Study

Genetic counseling is a field in which the client-counselor rapport plays a critical role in client satisfaction with the genetic counseling process. In the field of cancer genetic counseling, clients present to discuss a personal and/or family history of cancers

that may be heritable in themselves or in their family. Partially through the use of psychosocial techniques, the trained genetic counselor builds rapport with his or her client throughout a session. Two components of rapport are "a mutual agreement of goals and tasks" (Uhlmann et al., 2009, p. 137), and meeting client expectations. When the relationship or working alliance is built, the client is more likely to feel that his/her expectations for the setting have been met (Uhlmann et al., 2009). Gender is one factor that can impact the client-counselor rapport. Many studies that have been published regarding the genders of both healthcare providers and their clients in the medical field have suggested that gender has no significant effect on this rapport, or that the difference in rapport is more likely due to a difference in sex role as opposed to strictly gender. One way to examine if gender has an impact on this rapport is through the use of a survey tool. Some published studies have used survey tools for research and to improve the genetic counseling process at academic centers. However, to the best of our knowledge, no published study has explored the relationship between gender and rapport in the field of genetic counseling. If gender of the genetic counselor is a significant factor in client-counselor rapport, the results will need to be replicated with other counselors and in other specialty fields to determine whether this is a more widespread phenomenon. Further research may also need to be done to study why counselor gender may be playing a role in client-counselor rapport in order to improve client-counselor relations in genetic counseling sessions. Theoretically, by improving this rapport, clients will have a more enriched experience with genetic counseling.

The Working Alliance Inventory tool was chosen for this study because it is a well-established tool in the realm of psychology that can be dissected into distinct factors.

These factors may be useful in identifying particular areas of the session that need improvement, and may suggest that different techniques might be used to increase rapport regarding the session's agenda, the steps taken to carry out that agenda, or the deeper relationship between the genetic counselor and his or her client. Its wording allows for both client and counselor participation, and by analyzing both sets of responses, it can be instrumental in identifying differences of opinion between the genetic counselor and his or her client.

This study aims to examine if there is a difference between a male and a female cancer genetic counselor at one academic institution with regard to client-counselor rapport. Published literature in the realm of psychology to date suggests that gender of the genetic counselor will not be a significant moderator of client-counselor rapport. Studies published by Highlen & Russell (1980), Blier et al. (1987), and Nelson (1993) were inconclusive regarding whether counselor gender played a significant part in client-counselor rapport. Instead, the sex role of the counselor or clients' particular problems may have been playing a larger role. Additionally, a study by Wester et al. (2002) suggested that there is not a gender-specific emotional framework; that males and females are equally capable of the same range of emotions and behaviors. The authors suggested that factors such as context may play a larger role in the behavior of clients in a session than their gender. This extends to psychological counselors; both male and female counselors are theoretically capable of achieving the same range of emotions, and should be able to help clients equally well. The working hypothesis of this study is that gender of the genetic counselor will not be a significant moderator in client-counselor rapport between male genetic counselors and female genetic counselors.

Chapter 2. Manuscript

2.1 Abstract

Genetic counseling is a field in which client-counselor rapport plays a critical role in client satisfaction with the genetic counseling process. One factor that may impact this rapport is gender of the genetic counselor. Previous studies in the field of psychological counseling suggest that gender is not a significant moderator of this rapport. To the best of our knowledge, no study has been published in the field of genetic counseling examining the impact that the gender of the genetic counselor has on client-counselor rapport. To study this effect, an amended version of Horvath & Greenberg's (1989) Working Alliance Inventory tool was employed to survey clients of male and female cancer genetic counselors at The Ohio State University. Respective questions measured Goal, Task, and Bond score, as well as overall WAI score. The final study sample consisted of 45 female clients of two cancer genetic counselors, one of each gender. A repeated measures ANOVA with a Greenhouse-Geiser correction determined that gender of the genetic counselor was shown not to be a statistically significant moderator of overall WAI score. The study did show, however, that genetic counselors self-reported significantly higher Total WAI scores than their clients ($p = .024$), specifically with regards to Bond score ($p = .002$). Our study showed that the genetic counselors had a more positive view of the effectiveness of the sessions, particularly with respect to rapport, than their clients had. This suggests that genetic counselors may benefit from using tools like this one in order to self-assess their sessions more effectively. By doing

so, rapport between themselves and their clients may theoretically improve from the perspective of the clients, leading to a more enriched and satisfying experience for both parties.

2.2 Introduction

Genetic counseling is a field in which the client-counselor rapport plays a critical role in client satisfaction with the genetic counseling process. In the field of cancer genetic counseling, clients present to discuss a personal and/or family history of cancers that may be heritable in themselves or in their family. Partially through the use of psychosocial techniques, the trained genetic counselor builds rapport with his or her client throughout a session. Two components of rapport are "a mutual agreement of goals and tasks" (Uhlmann et al., 2009, p. 137), and meeting client expectations. When the relationship or working alliance is built, the client is more likely to feel that his/her expectations for the setting have been met (Uhlmann et al., 2009). Gender is one factor that can impact the client-counselor rapport. Many studies that have been published regarding the genders of both healthcare providers and their clients in the medical field have suggested that gender has no significant effect on this rapport, or that the difference in rapport is more likely due to a difference in sex role as opposed to strictly gender. One way to examine if gender has an impact on this rapport is through the use of a survey tool. Some published studies have used survey tools for research and to improve the genetic counseling process at academic centers. However, to the best of our knowledge, no published study has explored the relationship between gender and rapport in the field of genetic counseling. If gender of the genetic counselor is a significant factor in client-counselor rapport, the results will need to be replicated with other counselors and in other

specialty fields to determine whether this is a more widespread phenomenon. Further research may also need to be done to study why counselor gender may be playing a role in client-counselor rapport in order to improve client-counselor relations in genetic counseling sessions. Theoretically, by improving this rapport, clients will have a more enriched experience with genetic counseling.

The Working Alliance Inventory tool was chosen for this study because it is a well-established tool in the realm of psychology that can be dissected into distinct factors. These factors may be useful in identifying particular areas of the session that need improvement, and may suggest that different techniques might be used to increase rapport regarding the session's agenda, the steps taken to carry out that agenda, or the deeper relationship between the genetic counselor and his or her client. Its wording allows for both client and counselor participation, and by analyzing both sets of responses, it can be instrumental in identifying differences of opinion between the genetic counselor and his or her client.

This study aims to examine if there is a difference between a male and a female cancer genetic counselor at one academic institution with regard to client-counselor rapport. Published literature in the realm of psychology to date suggests that gender of the genetic counselor will not be a significant moderator of client-counselor rapport. Studies published by Highlen & Russell (1980), Blier et al. (1987), and Nelson (1993) were inconclusive regarding whether counselor gender played a significant part in client-counselor rapport. Instead, the sex role of the counselor or clients' particular problems may have been playing a larger role. Additionally, a study by Wester et al. (2002) suggested that there is not a gender-specific emotional framework; that males and

females are equally capable of the same range of emotions and behaviors. The authors suggested that factors such as context may play a larger role in the behavior of clients in a session than their gender. This extends to psychological counselors; both male and female counselors are theoretically capable of achieving the same range of emotions, and should be able to help clients equally well. The working hypothesis of this study is that gender of the genetic counselor will not be a significant moderator in client-counselor rapport between male genetic counselors and female genetic counselors.

2.3 Materials and Methods

Four cancer genetic counselors (two male, two female) were recruited from The Ohio State University (OSU) to participate in this study. They were each given multiple packets containing the following sets of documents: A Letter of Participation (see Appendix A), a Demographics Form (see Appendix B), a Client Survey (see Appendix C), and a Counselor Survey (see Appendix D). The Client Survey and Counselor Survey were amended versions of the Working Alliance Inventory (Horvath & Greenberg, 1989). Amendments were made to tailor some of the questions more specifically to a genetic counseling session. Each group of four forms was pre-labeled with a Session Number, a Counselor ID, a Client ID, a section for the counselor to record the client gender, and a space for the counselor to record the date. By labeling the forms as such, the form that the client completed and the form that the counselor completed were matched by the principal investigator after the forms were mailed separately. Counselors were asked to offer the Letter of Participation, the Demographics Form, and the Client Survey to all clients who were 18 years of age or older and spoke English. Through the Letter of Participation, clients were invited to participate and asked to complete the three forms

and return them to support staff at the OSU facility. All forms received by the principal investigator were absent of any identifying information. These forms were mailed to The University of South Carolina (USC) for coding and analysis. Counselors completed their corresponding Counselor Surveys and also mailed them to USC for coding, scoring, and analysis.

Data analysis was performed using Statistical Package for the Social Science (SPSS) software, version 21.0. The general linear model was chosen to calculate repeated measures analysis of variance (ANOVA) in order to compare the differences between sessions with a female genetic counselor and sessions with a male genetic counselor, using female clients as the independent variable.

2.4 Results

2.4.1. Demographics. Tables displaying data received from all participants can be found in Appendix E; this includes male and female clients, those who were counseled by counselors M1 and F1 in addition to counselors M2 and F2, and three clients who gave responses that were ultimately considered outliers and not included in the final study sample (58 total). Figures 2.1 - 2.4 display data gathered from all female respondents in the study, regardless of counselor seen (M1, M2, F1 or F2) (57 total). Figures 2.5 - 2.8 display data gathered from female clients of counselors M2 and F2 only, and exclude three outliers (45 total). These 45 respondents comprised the final study sample. In the "Descriptive Statistics" tables found in Appendix E, "CO" stands for "Counselor" and "CL" stands for client. Thus, "Total_CO_WAI - male" is the Total WAI score recorded by the male counselor involved in the final study sample (counselor M2). "Total_CL_WAI - female" is the Total WAI score recorded by the clients who saw the

female counselor involved in the final study sample (counselor F2). These "Descriptive Statistics" tables follow the same format for Total WAI score, Goal score, Task score, and Bond score, and are the basis for Figures 2.5 - 2.8.

During the study, one male counselor and one female counselor exhausted their supplies of 15 sets of forms, and two additional sets were mailed. Due to a variety of factors, one of the female counselors was unable to offer many surveys to clients, and another female genetic counselor at the same clinic was recruited to replace her in the study. This counselor, in addition to one of the male counselors, also was unable to produce a significant number of matched form pairs, so data from one male counselor and one female counselor only was coded and analyzed. Initially, the study was meant to examine differences in responses between both male and female genetic counselors and male and female clients, but all but one of the matched form pairs received was concerning a female client. Of the participants in the study, five counselors filled out and returned a total of 71 surveys, and their clients filled out and returned a total of 58 surveys, for a total client response rate of 82%. There were no client surveys returned without a corresponding counselor survey. Fifty-seven of these 58 (98%) matched pairs were from female clients (one male client). Of these 57 matched pairs with female clients, 8 were sessions with Counselor Male 1 (M1), one was in a session with Counselor Female 1 (F1), 25 were in a session with counselor Male 2 (M2), and 23 were in a session with counselor Female 2 (F2) (see Figure 2.1). All clients self-reported as being at least 22 years of age (see Figure 2.2). Greater than 90% of clients reported having at least some college education (see Appendix E).

While clients presented to genetic counseling regarding a variety of cancers, 91% discussed breast cancer, ovarian cancer, or both (see Figure 2.3). 16 clients presented for a personal history of cancer only, 17 presented for a family history of cancer only, and 24 presented with both personal and family histories of cancer (see Figure 2.4).

2.4.2. Final study sample. As two counselors (M2 and F2) combined to counsel 48 of the 57 total female clients in sessions with matched survey pairs, their surveys and the corresponding client surveys were the only ones included in the analysis. The sample size from counselors M1 and F1 were not large enough to justify including these clients in the study. Additionally, 3 of these remaining 48 respondents answered "1 - Strongly Disagree" on all 10 survey questions, while no other client answered anything below "3 - Neutral." These clients may have been misreading the form, believing a "1" response to correspond with "Strongly Agree" instead of "Strongly Disagree." These outliers were removed from final analysis as a result of this assumption, given the responses from the rest of the study sample. There were 45 respondents included in the final analysis; female clients of counselors M2 and F2, with three outliers removed.

2.4.3. Overall factor results with regards to gender of the genetic counselor. The original Working Alliance Inventory had 12 questions, with four questions each relating to a different factor (Goal, Task, and Bond). For this study, an amended form of the Working Alliance Inventory was used. This amended form has 10 questions. Questions 1-4 correspond to the Goal factor questions of the original tool, questions 5-7 correspond to the Task factor, and questions 8-10 correspond to the Bond factor. As the Goal factor had four contributing questions compared with three each for the Task and Bond factors, it comprises a larger percentage of Total WAI score. The clients' responses

to these respective questions were combined to determine an overall Goal, Task, and Bond score for both the male and the female genetic counselor, and the responses to all questions formed a Total WAI score. A repeated measures ANOVA with a Greenhouse-Geiser correction determined that gender of the genetic counselor was not shown to be a statistically significant moderator of Total WAI score ($F(1, 43) < 0.001, p = 0.985$, partial $\eta^2 < 0.001$) (see Figure 2.5). Counselor gender was also not shown to be a significant moderator of the Goal, Task, or Bond factors. A repeated measures ANOVA with a Greenhouse-Geiser correction determined that gender of the genetic counselor was not shown to be a statistically significant moderator of Goal score ($F(1, 43) = 0.084, p = 0.774$, partial $\eta^2 = 0.002$) (see Figure 2.6), of Task score ($F(1, 43) = 0.225, p = 0.638$, partial $\eta^2 = 0.005$) (see Figure 2.7), or of Bond score ($F(1, 43) = 0.017, p = 0.896$, partial $\eta^2 < 0.001$) (see Figure 2.8). To assist in reading Figures 2.5 - 2.8, the first bar is the score (Total WAI, Goal, Task, or Bond, depending on the figure) recorded by Counselor M2 in the sessions he counseled. The second bar is the score recorded by Counselor F2 in the sessions she counseled. The third bar is the score recorded by all clients who saw Counselor M2; the fourth is the score recorded by all clients who saw Counselor F2. A graphical depiction of the effect counselor gender had on client responses, then, would be achieved by observing the differences between the third and fourth bars (the differences in score recorded by clients who saw Counselor M2 and those who saw Counselor F2).

2.4.4. Overall factor results between genetic counselors and their clients.

Interestingly, when analyzing the data, another trend was seen, unrelated to counselor gender. A repeated measures ANOVA with a Greenhouse-Geiser correction determined that the Total WAI score between genetic counselors and their clients differed

significantly overall ($F(1, 43) = 5.478, p = 0.024, \text{partial } \eta^2 = 0.113$) (see Figure 2.5). When individual factors were examined, Goal score ($F(1, 43) = 1.592, p = 0.214, \text{partial } \eta^2 = 0.036$) (see Figure 2.6) and Task score ($F(1, 43) = 3.798, p = 0.058, \text{partial } \eta^2 = 0.081$) (see Figure 2.7) did not differ significantly overall, but Bond score ($F(1, 43) = 10.704, p = 0.002, \text{partial } \eta^2 = 0.199$) (see Figure 2.8) did. As described above, the graphical depiction of the differences between counselor scores and client scores would be achieved by comparing the first and second bars (the scores recorded by Counselor M2 and F2) with the third and fourth bars, respectively (the scores recorded by the clients of Counselor M2 and those recorded by the clients of Counselor F2).

2.5 Discussion

Overall, the Total WAI score, and each of its three components (Goal, Task, and Bond), showed no statistically significant difference between a male cancer genetic counselor and a female cancer genetic counselor. This confirms the initial hypothesis that gender of the genetic counselor would not be a significant moderator in client-counselor rapport between male genetic counselors and female genetic counselors.. This was shown in a cancer genetics setting, with an overwhelming number of cases including either breast or ovarian cancer, two cancers that predominantly affect women. This is encouraging, as it suggests that both the male and female genetic counselors are able to effectively utilize psychosocial techniques to build rapport with their clients, regardless of whether the cancers discussed are female-specific (or mostly female-specific, as male breast cancer accounts for around 1% of all breast cancer cases (Gómez-Raposo, Tévar, Moyano, Gómez, & Casado, 2010).

When examining differences between counselor scores and client scores, however, there are some differences. Both the Total WAI scores, and the Bond factor scores in particular, were significantly different between genetic counselors and their clients. This means that genetic counselors were self-reporting a higher level of client-counselor rapport in sessions than their clients were, especially regarding the Bond factor. The questions contributing to Bond score asked participants about a client's confidence in the counselor, the counselor's respect for his or her client, and mutual trust. There is little in the published literature regarding genetic counselor self-assessment, and to our knowledge, no published studies have used a form of the Working Alliance Inventory in order to evaluate sessions from both the genetic counselors' and the clients' perspectives.

Little, Packman, Smaby, & Maddux (2005) evaluated a tool named the Skilled Counselor Training Model (SCTM), which aims to teach counseling skills. When studying two groups of psychological counselors, both overestimated their skills before training with the tool. Afterward, the control group (which did not train with the tool) continued to overestimate their skills, while those counselors that did train with the tool gave a more accurate self-assessment of their performance. The Skilled Counseling Scale (SCS) tool was used for counselor skill assessment both before and after training with the SCTM. All participants in the study were first-year students in their counseling training program, so these results may not be indicative of how counselors with more experience might perform. Given the results of the study, it is possible that the counselors involved may benefit from the use of this tool, or others like it, in order to increase awareness of the types of skills used in sessions and gain a viewpoint more similar to their clients'. By doing so, the genetic counselor will theoretically have a better sense of what the client is

experiencing during a session, and how to best use the skills in which they have been trained in order to accomplish the mutual goals that each participant has agreed upon for the session.

In addition to using tools, one genetic counselor has suggested that being a training supervisor leads her to more frequent self-evaluation than she would otherwise (Wessels, 2012). In training genetic counseling students, one must necessarily evaluate one's own sessions with patients in order to point out particular events or phrases used during a session. In turn, this frequent self-evaluation theoretically leads to a better understanding of the skills used within a session and ways they might be sharpened to improve the experience for the patient. In addition to self-assessment, self-monitoring is another skill that may improve client-counselor rapport. As Miserandino (2012) states, high self-monitors are more aware of their self-presentation, and use others' behavior as a barometer and a guide for how to behave when interacting with that individual. In doing so, they might hope to foster a better relationship with the person by appearing more like them. Taking on advisory roles to other genetic counselors may foster this increased self-assessment in a similar way to using tools and lead to increased client-counselor rapport.

There were several limitations to this study. First, although the study originally included four cancer genetic counselors (two male, two female), limited matched survey pairs from two of the counselors required data analysis to be run for a single male and a single female genetic counselor. The results may reflect only on these individual counselors and not on genetic counselors, male or female, in general. The sample size was also limited - 45 client-counselor survey pairings were analyzed in total. In the future, much larger numbers of both genetic counselors and their clients would be more

indicative of general trends. This study was performed in the cancer genetic counseling specialty; studies performed in the prenatal and pediatric genetic counseling sessions may produce different results. The sample reflects an overwhelming number of sessions that concerned either breast or ovarian cancer, which may have had an impact on the results. In the future, sessions focusing on cancers other than these may be beneficial to understand the effect these cancers may have on rapport between the client and genetic counselor. The study did not initially intend to examine differences in scores between genetic counselors and their clients regarding client-counselor rapport. Additional studies should be completed to confirm these findings and expand upon them. Finally, the Working Alliance Inventory tool is not built to measure the effect of sex roles, which may have a different effect on the relationship between the counselor and the client than strictly gender. Additional studies should be done using a different tool to examine whether sex roles are a significant moderator of client-counselor rapport. This future research will, presumably, increase client satisfaction with genetic counseling services by allowing genetic counselors to examine specific ways in which they can increase rapport with their clients.

2.6 Conclusion

This study aimed to determine if cancer genetic counselors' gender made a difference in client-counselor rapport, as measured by a 10-question survey tool. This tool measured factors such as Goal, Task, and Bond, and asked specific questions regarding the agenda and steps taken during a session, and psychological concepts such as trust and respect. While gender of the genetic counselor was not found to be a significant moderator, it was shown that genetic counselors were reporting higher Total

WAI scores, specifically Bond scores, than their clients. These findings may be useful to review and replicate on a larger scale to determine if the results apply to many different genetic counselors, or whether this was a function of the individual genetic counselors involved in the study or the field of cancer genetic counseling in particular. The use of this tool and others like it may be beneficial to improve counselor self-assessment and increase client-counselor rapport. Additionally, taking on an advisory role to other genetic counselors may have a similar effect.

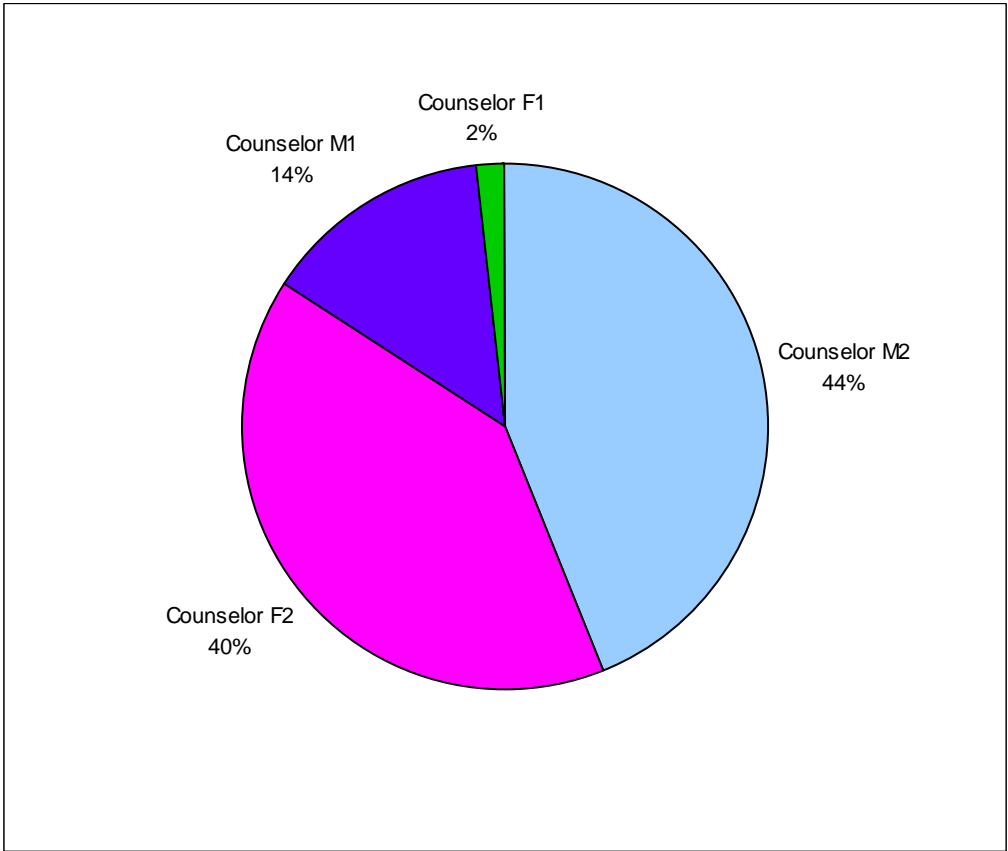


Figure 2.1. Percentages of clients seen by the four genetic counselors.

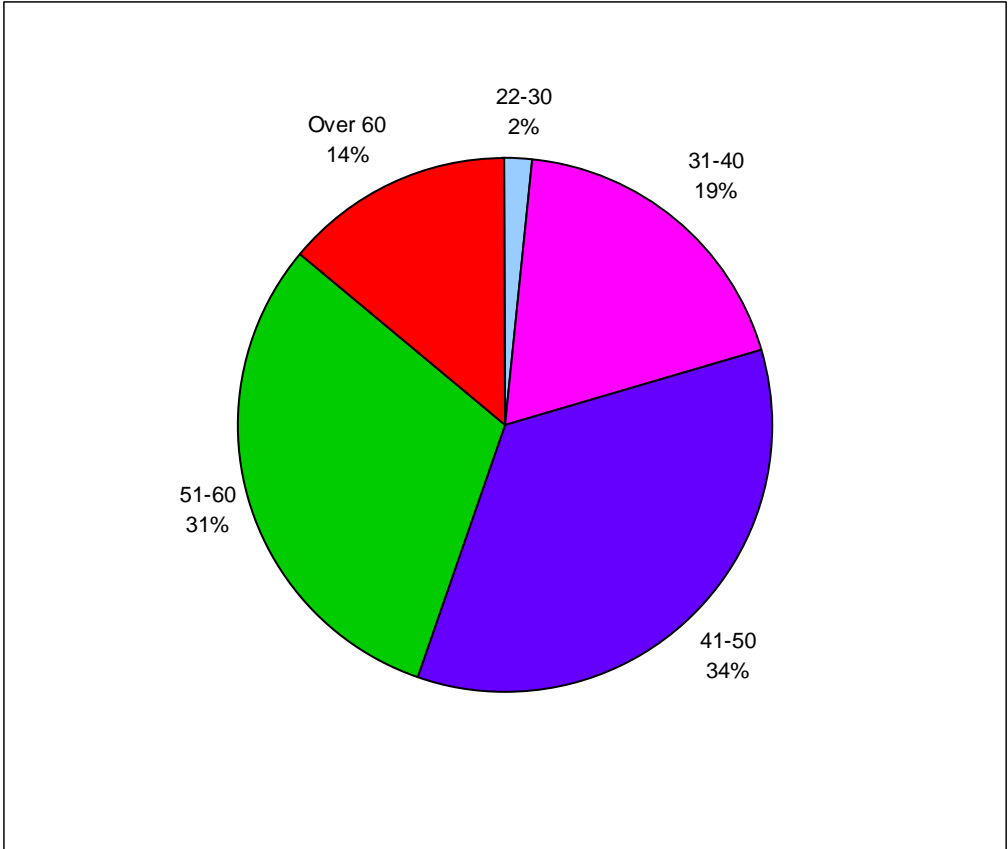


Figure 2.2. Client-reported age range percentages.

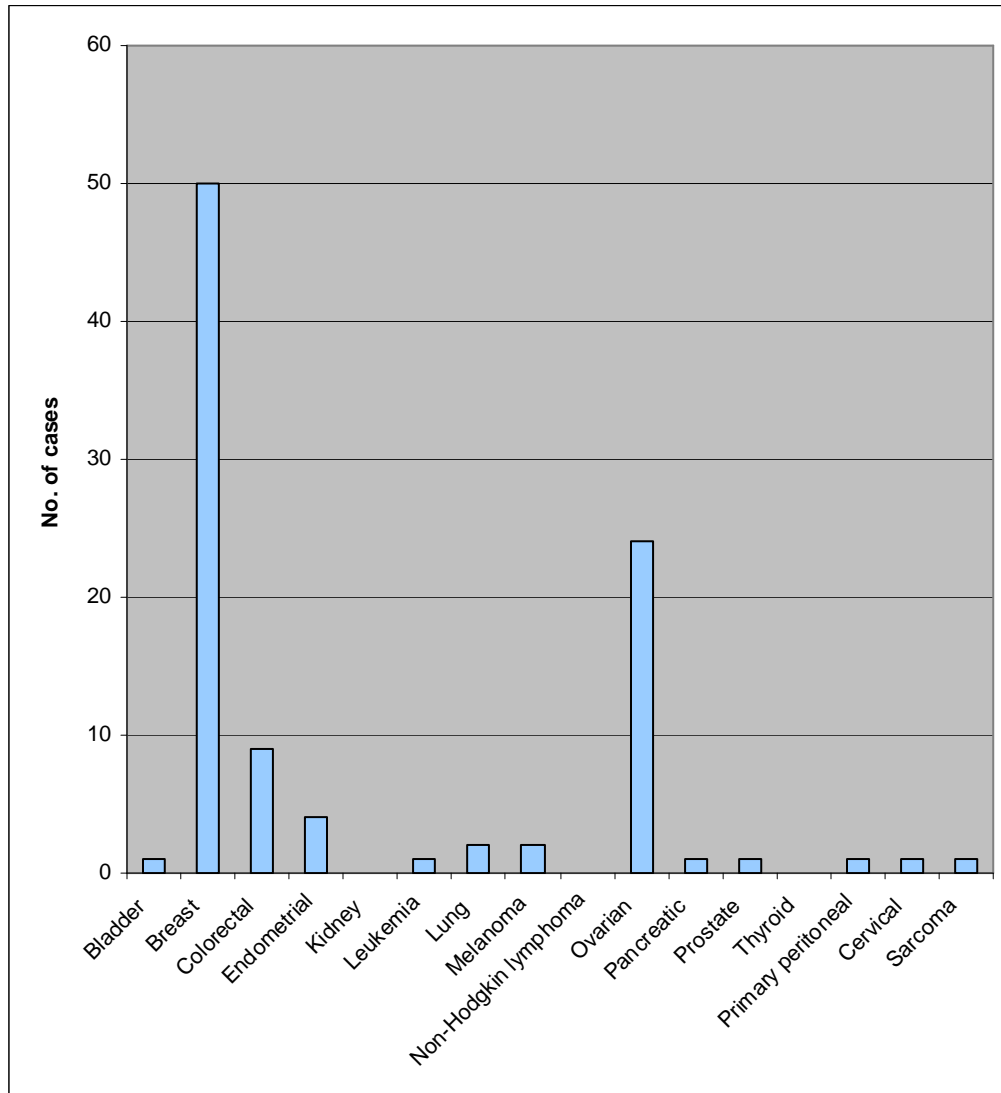


Figure 2.3. Types of cancer discussed in the genetic counseling sessions.

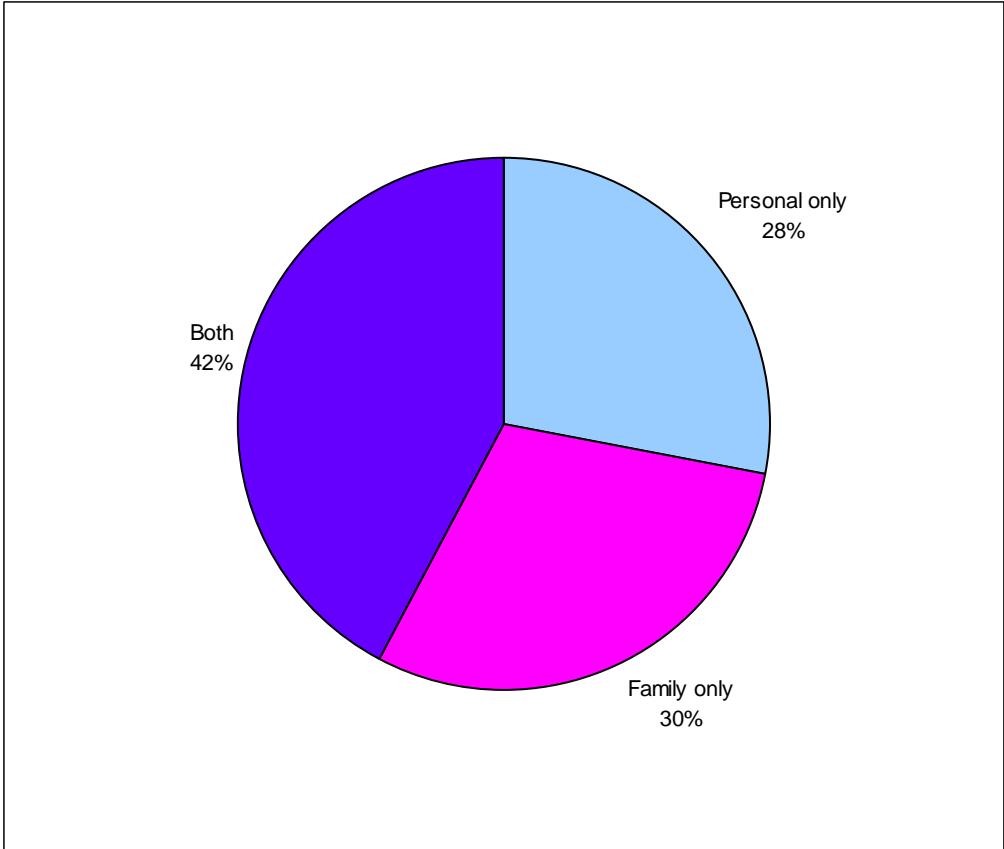


Figure 2.4. Types of cancer history discussed in the sessions.

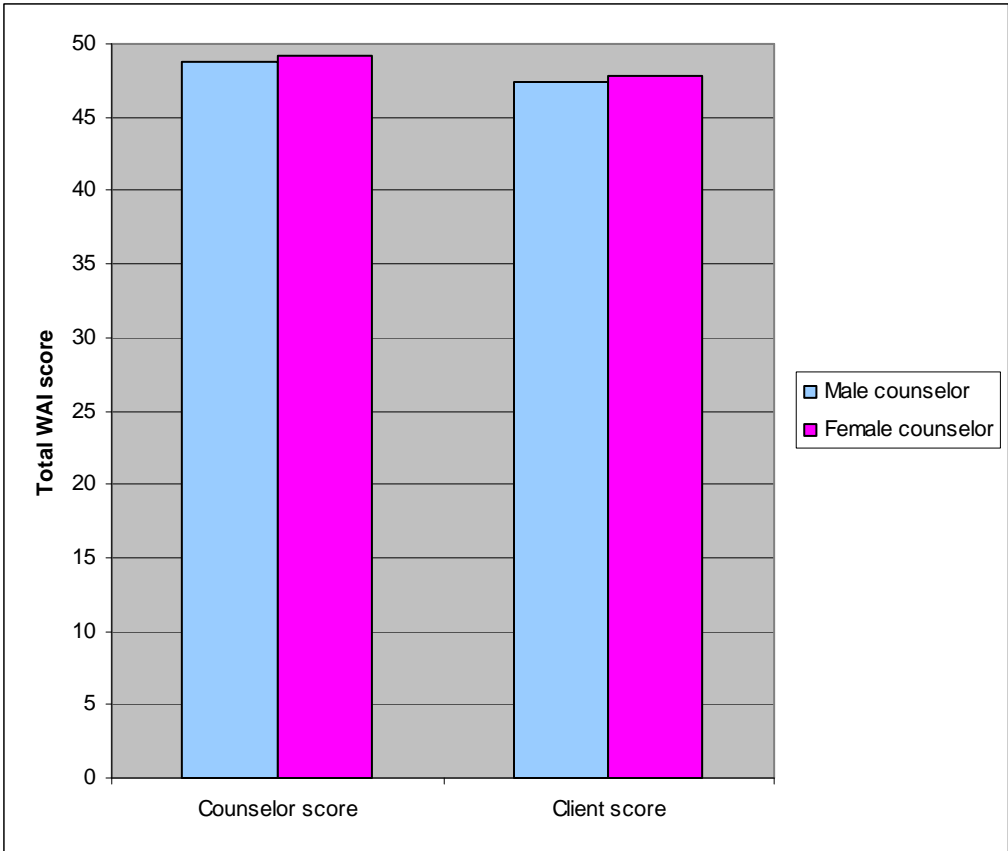


Figure 2.5. Total WAI score for counselors and clients.

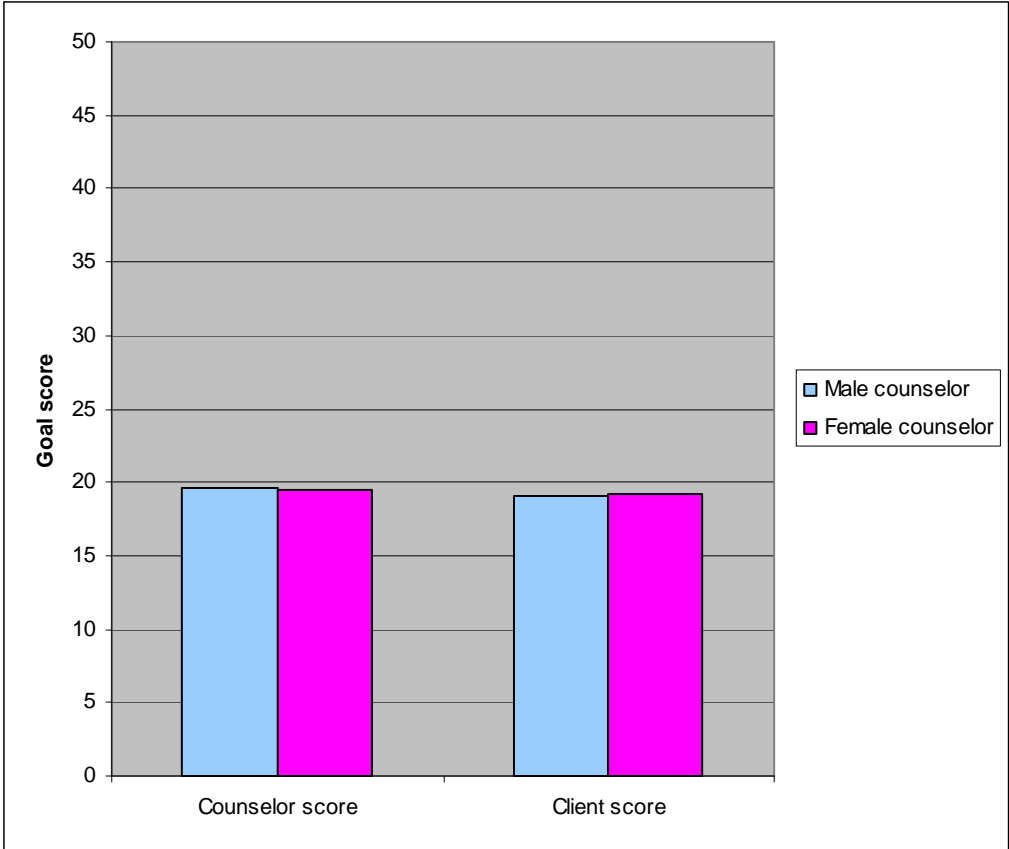


Figure 2.6. Goal score for counselors and clients.

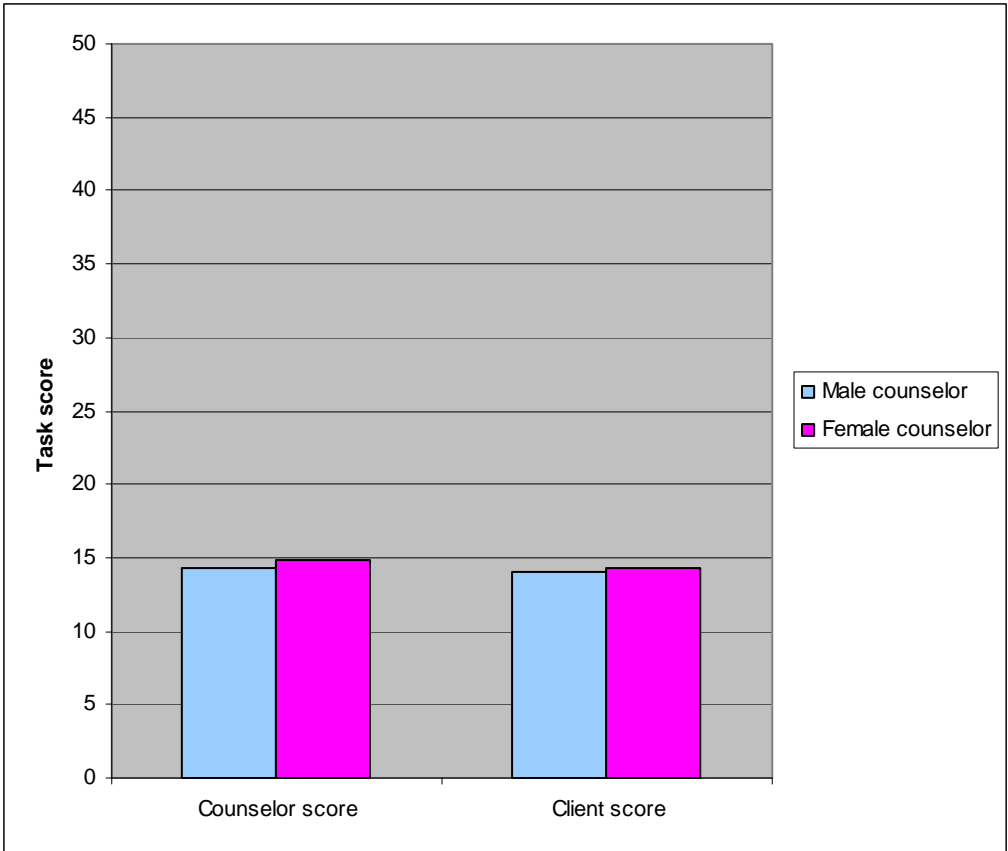


Figure 2.7. Task score for counselors and clients.

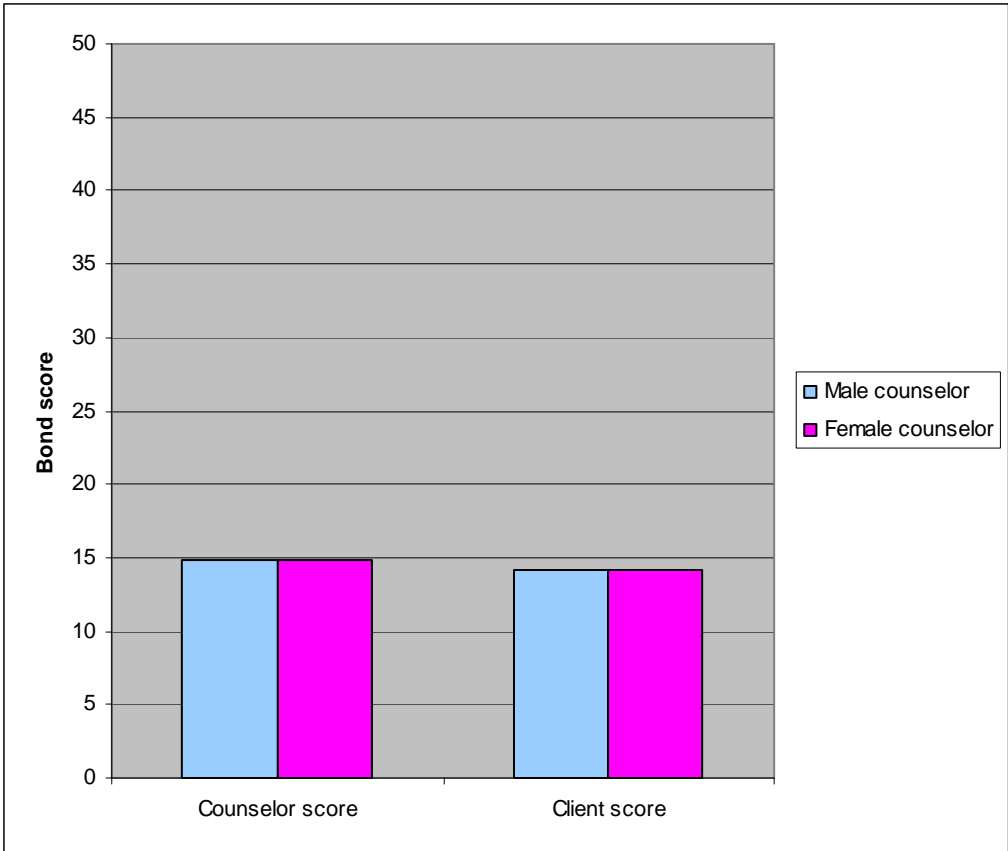


Figure 2.8. Bond score for counselors and clients.

Chapter 3. Conclusions

This study aimed to determine if cancer genetic counselors' gender made a difference in client-counselor rapport, as measured by a 10-question survey tool. This tool measured factors such as Goal, Task, and Bond, and asked specific questions regarding the agenda and steps taken during a session, and psychological concepts such as trust and respect. While gender of the genetic counselor was not found to be a significant moderator, it was shown that genetic counselors were reporting higher Total WAI scores, specifically Bond scores, than their clients. These findings may be useful to review and replicate on a larger scale to determine if the results apply to many different genetic counselors, or whether this was a function of the individual genetic counselors involved in the study or the field of cancer genetic counseling in particular. The use of this tool and others like it may be beneficial to improve counselor self-assessment and increase client-counselor rapport. Additionally, taking on an advisory role to other genetic counselors may have a similar effect.

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Appendix A. Letter of Participation

Exploring the Differences in Rapport Between Male and Female Genetic Counselors and Their Clients

Principal Investigator: John Abernethy

Invitation to Participate: Letter to Clients of Genetic Counseling

Dear Potential Participant:

You are invited to participate in a graduate research study conducted through the University of South Carolina School of Medicine Genetic Counseling Program. My thesis project involves one objective: to examine how the gender of both the client and the genetic counselor influences a genetic counseling session.

Participation in this study is intended to benefit genetic counselors and their clients as a way to determine if matched gender pairs (male-male or female-female) have a different relationship between clients and counselors compared to unmatched gender pairs.

If you would like to participate, please complete our anonymous paper survey and demographics form. The survey will ask a series of questions related to your perspectives and experiences with your genetic counselor today. The survey and demographics form should take less than 15 minutes to complete. Your responses will not be seen by your genetic counselor.

All responses are anonymous and confidential. If you do not feel comfortable answering a given question, please skip that question and continue with the remainder of the survey or demographics form. The results of this study may be published or presented at academic meetings, but participants will not be identified.

Your participation in the survey is completely voluntary. By completing the survey, you are consenting that you have reviewed this information and understand that results from this research may be published. At any time, you may withdraw from this study by not completing the survey without any consequences to you. Although there is no direct benefit to you for participating in this research, your responses will aid in the knowledge of how gender of participants affects genetic counseling sessions.

If you have any questions or would like additional information, please contact me (John Abernethy) using the contact information below. Feel free to contact the Office of Research Compliance at the University of South Carolina at 803-777-7095 if you have any questions about your rights as a research participant.

Thank you for your time and consideration. We greatly appreciate your participation.

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Appendix B. Demographics Form

Session # _____
Counselor ID _____
Client ID _____
Date _____
Edit Staff ID _____
Edit Date _____

1. Are you male or female?

Male
Female

2. What is your age?

Under 18
18-21
22-30
31-40
41-50
51-60
Over 60

3. What is the highest level of education you have completed?

Less than high school
High school/GED
Some college
2-year college degree (Associate's)
4-year college degree (BA, BS)
Master's degree
Doctoral degree
Professional degree (MD, JD)

4. Which type of cancer were you discussing with the genetic counselor today (check all that apply)?

Bladder
 Breast
 Colorectal
 Endometrial
 Kidney
 Leukemia
 Lung
 Melanoma
 Non-Hodgkin Lymphoma
 Ovarian
 Pancreatic
 Prostate
 Thyroid

Other (please specify): _____

5. Have you been diagnosed with cancer, currently or in the past, or has a family member been diagnosed (check all that apply)?

I have been diagnosed with cancer.

My family member(s) have been diagnosed with cancer.

Appendix C. Client Survey

Session # _____
 Counselor ID _____
 Client ID _____
 Date _____
 Edit Staff ID _____
 Edit Date _____

Working Alliance Inventory - Client Derived from WAIP0898

We want you to rate, as objectively as possible, your view of how you and your counselor work together. Use #5 if you strongly believe the statement is TRUE, and use #1 if you strongly believe the statement is FALSE. THIS QUESTIONNAIRE IS CONFIDENTIAL - YOUR COUNSELOR WILL NOT SEE YOUR ANSWERS. Work fast. Your first impressions are the ones we would like to see. You do not have to answer any question you do not wish to answer. You may stop filling out the questionnaire at any time.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. My counselor understands what I am trying to accomplish in the session.	1	2	3	4	5
2. My counselor and I are working towards mutually-agreed-upon agenda.	1	2	3	4	5
3. My counselor and I agree about what to discuss during the session.	1	2	3	4	5
4. My counselor and I have established a good understanding of the kinds of decisions that would be beneficial for me.	1	2	3	4	5
5. My counselor and I agree about the next steps to be taken in dealing with my situation.	1	2	3	4	5
6. My counselor gave me new options to consider while moving forward.	1	2	3	4	5
7. I believe the way we are dealing with my situation is beneficial to me.	1	2	3	4	5
8. I am confident in my counselor's ability to help me.	1	2	3	4	5
9. My counselor and I trust one another.	1	2	3	4	5
10. I feel that my counselor respects me.	1	2	3	4	5

Appendix D. Counselor Survey

Session # _____
 Counselor ID _____
 Client ID _____
 Date _____
 Edit Staff ID _____
 Edit Date _____

Working Alliance Inventory - Counselor Derived from WAIT0898

We want you to rate, as objectively as possible, your view of the client's alliance with you. Use #5 if you strongly believe the statement is TRUE, and use #1 if you strongly believe the statement is FALSE. THIS QUESTIONNAIRE IS CONFIDENTIAL - THE CLIENT WILL NOT SEE YOUR ANSWERS. Work fast. Your first impressions are the ones we would like to see. You do not have to answer any question you do not wish to answer. You may stop filling out the questionnaire at any time.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. The client feels I understand what he/she is trying to accomplish in the session.	1	2	3	4	5
2. The client feels that we are working on a mutually-agreed-upon agenda.	1	2	3	4	5
3. The client feels that we agree about what to discuss during the session.	1	2	3	4	5
4. The client feels like we have established a good understanding of the kinds of decisions that would be beneficial for him/her.	1	2	3	4	5
5. The client feels we are in agreement about the next steps to be taken in dealing with his/her situation.	1	2	3	4	5
6. The client feels I gave him/her new options to consider while moving forward.	1	2	3	4	5
7. The client feels the way we are dealing with his/her situation is beneficial to him/her.	1	2	3	4	5
8. The client feels confident in my ability to help him/her.	1	2	3	4	5
9. The client feels we trust each other.	1	2	3	4	5
10. The client feels I respect him/her.	1	2	3	4	5

Appendix E. Total Survey Response Data from All Participants

Statistics

		Client-verified gender	Client age range	Client education level	Type(s) of cancer history
N	Valid	58	58	57	58
	Missing	13	13	14	13

Client-verified gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	1	1.4	1.7	1.7
	Female	57	80.3	98.3	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Client age range

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	22-30	1	1.4	1.7	1.7
	31-40	11	15.5	19.0	20.7
	41-50	20	28.2	34.5	55.2
	51-60	18	25.4	31.0	86.2
	Over 60	8	11.3	13.8	100.0
	Total		58	81.7	100.0
Missing	System	13	18.3		
Total		71	100.0		

Client education level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school/GED	5	7.0	8.8	8.8
	Some college	8	11.3	14.0	22.8
	2-year college degree (Associate's)	5	7.0	8.8	31.6
	4-year college degree (BA, BS)	20	28.2	35.1	66.7
	Master's degree	12	16.9	21.1	87.7
	Doctoral degree	5	7.0	8.8	96.5
	Professional degree (JD, MD)	2	2.8	3.5	100.0
	Total	57	80.3	100.0	
Missing	System	14	19.7		
Total		71	100.0		

Type(s) of cancer history

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	My family member(s) have been diagnosed with cancer	13	18.3	18.3	18.3
	I have been diagnosed with cancer	18	25.4	25.4	43.7
	Both	16	22.5	22.5	66.2
	Total	24	33.8	33.8	100.0
Total		71	100.0	100.0	

Bladder

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	57	80.3	98.3	98.3
	Yes	1	1.4	1.7	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Breast

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	7	9.9	12.1	12.1
	Yes	51	71.8	87.9	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Colorectal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	48	67.6	82.8	82.8
	Yes	10	14.1	17.2	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Endometrial

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	54	76.1	93.1	93.1
	Yes	4	5.6	6.9	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Leukemia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	57	80.3	98.3	98.3
	Yes	1	1.4	1.7	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Lung

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	56	78.9	96.6	96.6
	Yes	2	2.8	3.4	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Melanoma

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	56	78.9	96.6	96.6
	Yes	2	2.8	3.4	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Ovarian

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	33	46.5	56.9	56.9
	Yes	25	35.2	43.1	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Pancreatic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	56	78.9	96.6	96.6
	Yes	2	2.8	3.4	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Prostate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	56	78.9	96.6	96.6
	Yes	2	2.8	3.4	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Primary Peritoneal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	57	80.3	98.3	98.3
	Yes	1	1.4	1.7	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Cervical

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	57	80.3	98.3	98.3
	Yes	1	1.4	1.7	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Sarcoma

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	57	80.3	98.3	98.3
	Yes	1	1.4	1.7	100.0
	Total	58	81.7	100.0	
Missing	System	13	18.3		
Total		71	100.0		

Descriptive Statistics

		Counselor_gender	Mean	Std. Deviation	N
Total_CO_WAI	Male		48.8261	1.19286	23
	Female		49.2273	1.82396	22
	Total		49.0222	1.52984	45
Total_CL_WAI	Male		47.3478	4.44776	23
	Female		47.7727	3.85365	22
	Total		47.5556	4.12617	45

Descriptive Statistics

		Counselor_gender	Mean	Std. Deviation	N
Counselor_Goal	Male		19.5652	.66237	23
	Female		19.4545	1.01076	22
	Total		19.5111	.84267	45
Client_Goal	Male		19.1304	1.84155	23
	Female		19.1818	1.59273	22
	Total		19.1556	1.70501	45

Descriptive Statistics

	Counselor_gender	Mean	Std. Deviation	N
Counselor_Task	Male	14.3478	.64728	23
	Female	14.8636	.63960	22
	Total	14.6000	.68755	45
Client_Task	Male	14.0435	1.63702	23
	Female	14.3636	1.21677	22
	Total	14.2000	1.43970	45

Descriptive Statistics

	Counselor_gender	Mean	Std. Deviation	N
Counselor_Bond	Male	14.9130	.28810	23
	Female	14.9091	.42640	22
	Total	14.9111	.35817	45
Client_Bond	Male	14.1739	1.58551	23
	Female	14.2273	1.23179	22
	Total	14.2000	1.40777	45