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CHANGES IN COMMUNICATION BETWEEN MOTHERS AND DAUGHTERS  
DURING A MOTHER'S BREAST CANCER DIAGNOSIS

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## **ABSTRACT**

Breast cancer affects 1 in 8 women in the United States (American Cancer Society, 2012). While this statistic is true in saying that 1 in 8 women are diagnosed with breast cancer, it does not take into account the many other people in a woman's inner circle that are affected during her diagnosis. Many changes will occur in a woman's life, and these changes can in turn affect her partner, her children, or her close friends as they adapt to these changes as well. A breast cancer diagnosis can change the lives of all those deeply involved. In particular, it can affect the female bond between mother and daughter.

This research examines how the challenges of a woman's breast cancer diagnosis affect her daughter. Does the mother-daughter relationship change during this experience? In particular, how does communication between mother and daughter change when a mother is undergoing her diagnosis and treatment? This research aims to find changes in the frequency of communication and topics of conversation between mother and daughter during a mother's breast cancer diagnosis.

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## **Chapter 1**

### **Literature Review**

For this study, I aim to answer how a breast cancer diagnosis changes the communication between a mother and daughter. Communication is defined as verbal disclosure and exchange of information. Using an online survey format, this study seeks to discover changes in openness in communication between mother and daughter. It aims to uncover everyday topics of conversation that frequent the mother daughter relationship before a diagnosis and how these topics change during the mother's diagnosis and treatment. I also plan to examine what methods of communication mothers and daughters choose to use during the diagnosis, as compared to the methods they chose before the diagnosis. This study will examine the new breast cancer related topics of conversation that enter the mother-daughter relationship, as well as uncover which of these new topics are difficult for mothers to talk to their daughters about.

#### *Review of Prior Research*

To begin, it is important to review the research that has been conducted on mother daughter relationships as a whole. A study conducted by Mudita Rastogi and Karen S. Wampler examines adult daughters' perceptions of the mother-daughter relationship. Although this study was conducted to compare these perceptions across various cultures, the results still hold significance. The main points of interest were connectedness, closeness, interdependence, dependency, and trust. Thirty daughters ranging in age from

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25 to 35 from 3 different cultures were asked open-ended questions about these topics. The daughters were asked to describe these points of interest in their “actual” and also their “ideal” relationship with their mother in a semi-structured interview. This study stuck to face value context without any interpretation. Overall, the study found that daughters’ “actual” perceptions of their relationship with their mother were very similar, across various cultures (Rastogi & Wampler, 1999).

A study conducted in 2000 takes a more detailed look at the communication between British parents and children about maternal breast cancer. Breast cancer was the chosen topic in this study because it affects one in 12 women in the United Kingdom. This study reached out to women who were treating stage I or stage II breast cancer and also had at least one child between 5 and 18 years of age. Thirty-two women, with a mean age of 43, met these criteria and agreed to participate. All but 5 women were married and there were a total of 56 children among the 32 women. This study, like many others that look at communication, used semi-structured interviews to collect data. The interview started with demographic data, moved on to yes or no questions, and finally ended with open-ended questions. These questions asked about “the history of the illness and treatment, communication with children and other family members...children’s understanding of the illness and treatment, and any emotional or behavioral problems in the children” (Barnes, Kroll, Burke, Lee, Jones & Stein, 2000). The transcripts of these interviews were analyzed by three researchers. The results of this study found that nearly all women interviewed told their partners at the earliest stages, but waited to tell their children. “At the stage of surgery, 44 children had been told that their mother was ill, but only 32 [children knew] that her illness was cancer” (Barnes, Kroll, Burke, Lee, Jones &

Stein, 2000). Many women cited fear of questions as their reasoning for not telling their children. Others said they wanted to protect their child from anxiety and stress. Those who told their children said they wanted to keep their children's trust and that their children had the right to know.

Upon a breast cancer diagnosis, women experience many stressors. These stressors have been identified and further researched by Kirsten M. Weber and Denise Solomon in their study *Understanding Challenges Associated with Breast Cancer: A Cluster Analysis of Intrapersonal and Interpersonal Stressors*. The aim of their research was to better understand how these stressors differ from woman to woman and how the breast cancer experience can impact relationship surrounding the patient. Through a web-based survey, Weber and Solomon collected data from 80 female breast cancer patients. The survey asked women about 12 previously researched and identified stressors. These included waiting for results, coming to terms with having breast cancer, making a treatment decision, dealing with the logistics of getting treatment, experiencing the side effects of treatments, coping with body image, coping with feelings of sexuality, getting social support from others, feeling isolated or alone, managing information sharing and privacy issues, managing other life events and addressing financial problems. Participants rated each of the stressors on a 5-point Likert scale, strongly agreeing or disagreeing that they had experienced this stressor. Respondents were then asked if they had discussed each stressor with their romantic partner. One hundred ten of the total stressors were reported not to have been discussed with a partner and 220 stressors were discussed.

The study concluded that some stressors were indeed easier for women to talk to their partners about than others. Stressors that fell into the cluster of intrapersonal and



identity concerns were reported as less distressing and more encouraging conversations than those dealing with fitting cancer into one's life. "Clearly, these findings indicate that people are talking relatively openly about intrapersonal and identity concerns...on the flip side, however, other types of stressors appear to be more difficult for breast cancer patients and their partners to talk about" (Weber & Solomon, 2008). The researchers suggest that upon a breast cancer diagnosis, more focus should be put on teaching families how to communicate about fitting breast cancer into one's life. These topics include communicating about feeling alone, making treatment decisions, support and financial burdens.

When Mothers Turn to Their Adolescent Daughters: Predicting Daughters' Vulnerability to Negative Adjustment Outcomes was a study conducted in 2000. This study found that maternal disclosure and negativity were positively correlated with daughters' anxiety and psychological distress (Koerner, Jacobs, & Raymond, 2000). Although its main focus is on financial adjustments after situations such as divorce, these financial problems and instability relate directly to the impact of a breast cancer diagnosis in a family. Disclosure among mothers and daughters is a controversial issue among scholars, as stated in the introduction of this study:

"Mother-daughter disclosure in the targeted topic areas would constitute a violation of boundaries...Other scholars suggest that children-even most adolescent children-do not have the emotional capacity to be in a confidante role vis-à-vis their parent, and therefore may feel overwhelmed or burdened by maternal disclosure" (Koerner, Jacobs, & Raymond, 2000).

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This study reached out to 267 mother-daughter dyads that had recently gone through divorce. Sixty-two of these dyads chose to participate. Daughters ranged in age from 11 ½ to 17 ½ years of age. Participants completed a variety of measures in the research. First, daughters were given a forced-choice scale. This scale had a range of topics to which daughters responded on a scale of 0-4. 0 represented the statement that “my mother never says anything to me about this topic” and 4 represented the statement that “my mother has talked with me about this topic, going into quite a bit of detail” (Koerner, Jacobs, & Raymond, 2000). Next, daughters were given open-ended questions, where they were asked to write down their feelings during times when their mother talked or did not talk to them about these topics. To compare, mothers were asked to do these same open-ended questions. Lastly, daughters were asked to specify from a list what risk taking behaviors (such as cutting class) they had participated in during the past six months (Koerner, Jacobs, & Raymond, 2000).

The results concluded that the majority of mothers disclosed sensitive information about their divorce to their daughters. After thorough analysis, it appears that mothers talk to their daughters about these topics not to confide as a friend, but to perform impression management. They want to impact their daughters’ perceptions of the situation. This study seemed to see this in a negative light, but this can be helpful as well. A mother talking to her daughter about a breast cancer diagnosis can impact a daughter in a positive light, when done the right way. Further research about mother-daughter communication during this time can help create this positive structure.

In the *Clinical Social Work Journal*, a summer 2000 article was published discussing the impacts and implications on adolescent daughters when their mothers have

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breast cancer. During a breast cancer diagnosis, “ill mothers may feel more vulnerable and uncertain of their role than healthy mothers” (Spira & Kenemore, 2000). There is confusion and uncertainty for adolescents during this time as well. Adolescent years are a time when most parents loosen their grip and restrictions on young adult children, but sometimes this process can be reversed when a mother is ill. Parents will strive to hold the family together and aim for cohesion, rather than independence. During this time, mothers may feel guilty for doing this to their children. In particular, mothers may feel guilty for making their daughter a higher risk for breast cancer now (Spira & Kenemore, 2000). For this reason, communication needs to be wide open, so that daughters can know their risk. Women with breast cancer are now tested for BRCA 1 and BRCA 2 to tell if their breast cancer was genetic. This is a crucial piece of information for a woman and her daughter.

Breast cancer can also prompt the role reversal of mother and daughter, such that a daughter may find herself suddenly being interdependent with her mother. She may have to help out around the house, carpool, or feel the need to protect her mother. Some daughters, though, speak of times when their mothers’ dependence on them was taxing though. Many fears associated with a daughter in this situation. Daughters will fear their own health, as well as the health of their mother. When ill informed, daughters may not understand the preventative measures they can take. These measures could potentially ease their fears. “The more communication there is about the disease process, the easier it may be for adolescent girls to have their own reactions” (Spira & Kenemore, 2000). Without communication, daughters feel alone or left out. Little to no communication can leave daughters feeling lost or even angered. Younger daughters may feel guilty, thinking

they caused the disease: “one twelve year old interviewed feared that the biting of her mother’s nipple she did during breast-feeding caused the cancer” (Spira & Kenemore, 2000).

Marcia Spira and Ellen Kenemore make a concluding point that some mothers may find difficulty in speaking to their daughters. Likewise, some daughters may find difficulty in listening to such a sensitive topic. In order to facilitate this communication, a family therapist can be used, as well as clinicians.

In 2006, as part of her dissertation, Meredith Burles conducted research about changes in roles, responsibilities, and relationships between mothers and daughters during a breast cancer diagnosis. Through twelve qualitative interviews of four mother-daughter pairs, Burles found that all four pairs needed to adapt and change to the situation, but the degree to which they needed to adapt their relationship varied among the pairs. The first major theme that emerged in Burles research was the shift of responsibility. Daughters often had to take on many of the motherly roles for their family, as their mother underwent treatment. In this same respect, mothers felt a change in responsibility as well. Most mothers had to relinquish responsibility to their daughters or outside family members for tasks they could not longer financially or physically complete. Although it may appear that daughters were loaded up with work, many were able to push through and complete the work based on their mother’s support and need for the work to be completed (Burles, 2006). This is an important note about mother-daughter communication during treatment. Mothers must convey to their daughters tasks that are absolutely vital and necessary to be completed. It appears that this will help daughters complete the most necessary tasks at hand.

Another theme Burles uncovered in her interviews with the mothers was their use of optimism for support. “When mothers adopted a positive attitude towards their illness, others in the family appeared to do so as well” (Burles, 2006). This optimistic approach can help shape the way daughters handle the illness as well. One daughter from the study described her mother’s positivity and strength to not only fight, but also beat this disease. She adopted her mother’s optimistic approach and believed her mother would in fact win this fight (Burles, 2006). This outlook can help daughters cope with their mothers’ illness and also allow them to remain strong and supportive during the situation. These are effective messages for mothers to convey to their daughters.

“The mother-daughter communicative nature of breast cancer has been ignored” claims Carla Fisher in her 2010 study. In her study, Fisher aimed to answer how mothers and their adult daughters adapt their supportive communication during a breast cancer diagnosis. Fisher’s methodology is influential in bridging the gap in research in this field because it takes an interpretative look that most studies have not. Participants in this study included women who had been diagnosed and undergoing breast cancer treatment within 36 months of the study. Forty diagnosed women were used for the study, coupled with 38 of their respective mothers or daughters. Interviews were conducted that lasted about 90 minutes and consisted mostly of open-ended questions. The participants were asked to describe communication in their mother-daughter relationship from start of diagnosis to present time. The results were narrowed down by common themes that appeared in most interviews and these themes were separated by age groups and points in life (Fisher, 2010)

One common theme that emerged among all age groups was the need for someone to listen. Another common theme was a noticeable increase in showing affection. Mothers and daughters both claimed that they included many more smiles, hugs, and “I love you” sayings after diagnosis. A third theme common among mothers and daughters was using humor to show support. Some daughters told stories of being humorous in the hospital with their mother. Mothers spoke of nicknaming their tumors or baldheads (Fisher, 2010).

An important finding in Fisher’s study was the impact of talking instead of withdrawing. It is not uncommon for teenage daughters to withdraw in this situation with their mother. But midlife mothers, talking about their daughters, claimed, “just [my daughter] being willing to talk versus withdrawing was the most prominent form of influence in...[my] adjustment to cancer” (Fisher, 2010). This willingness to talk at least gave mothers reassurance that their daughter was by their side during their breast cancer treatment. It showed their daughter was concerned and allowed mothers to bond more with their daughters (Fisher, 2010). This demonstrates how important open communication during a breast cancer diagnosis is for mother and daughter. It is important for mothers to convey this need for willingness to talk to their daughters. More research should be conducted following up on Fisher’s findings. This can provide successful techniques for mothers to use to convey this need to their daughters.

### *Critique*

Some mother-daughter relationship studies that have been recently conducted are not broad enough in sample. For example, the Rastogi and Wampler admits in its discussion that its sample was not random and therefore could not be even come close to

apply to an entire population. This same study used yes or no questionnaires in their methodology and did not allow for much in depth observation or interview. The lack in open questions limits the results in this study and allows for little interpretation.

The 2000 study about mothers turning to their adolescent daughters during negative adjustment outcomes provides some valuable information and insight about the association of maternal disclosure with daughters' psychological distress, but takes a biased stance in its discussion. This study worked under the assumption that the reports from daughters were more accurate and honest than those of mothers. Although the researchers claim that studies from 1994 found this assumption to be true, this is not a fair bias to hold in their own study. This is an assumption I will not hold in my own study of mothers and daughters. Every mother-daughter relationship is different and it is unfair and unscientific to assume that daughters are more truthful.

One article brought light to the need for further research in the field of mother-daughter communication during a breast cancer diagnosis. This interview study of communication between parents and children about maternal breast cancer from 2000 provides insight to what parents wish they had had help with at the time of diagnosis. Some mothers were asked if they needed help talking to their children, but the majority were not offered this. Many wished they had been offered a family meeting with a health professional, with insight into the child's specific age and childhood development. These are important results to take into consideration. It is apparent that both parents would like more help learning how to talk to their child during a mother's breast cancer diagnosis. For this reason, more research needs to be conducted in the field of mother-daughter communication, as well as parent-child communication.

*Conclusion*

Mother-daughter relationships coupled with their relation to breast cancer was a popular topic in communication research in the early 2000s. Although some researchers, such as Carla Fisher, have begun to pick up on this field of study again, it is clear that it is time for more research to be conducted. Breast cancer has made strides in both scientific research and awareness in the past ten years. It is time to take its scientific advances and the openness many now have about the maternal breast cancer, and begin to make advances in coping strategies for mothers and daughters that are undergoing this together. It is time to close the gap in research.

After reviewing previous research, I plan to answer the following questions in this study: What forms of communication do mothers and daughters use to talk about these topics? Do mothers close up about certain everyday topics of conversation they would have talked about frequently before diagnosis? Do daughters close up about certain everyday topics of conversation? What breast cancer related topics do daughters want to know more about? Are there some breast cancer related topics that mothers feel they share frequently, but daughters think are talked about less? Which breast cancer topics related to a mother's diagnosis are the easiest or the hardest to talk to a daughter about? This study will look at all of these questions, the emotions daughters feel when their mother confides in them, as well as emotions felt when their mother does not confide in them about these topics.

I hypothesize that daughters will decrease the topics of everyday conversation they talk to their mothers about during her diagnosis. I hypothesize that mothers will decrease their level of openness with their daughters during her diagnosis, by increasing



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communication about everyday topics of conversation and decreasing conversation about breast cancer related topics. Finally, I hypothesize that mothers and daughters will both agree that mothers were the ones that could have helped open communication more often than daughters, other family or professionals.

## **Chapter 2**

### **Methods**

The participants of this study were limited to mother-daughter pairs, in which the mother had previously or was currently undergoing a breast cancer diagnosis. Daughters had to meet criteria of being 18 years of age or older at the time of the study, but did not have to be 18 at the time of their mother's diagnosis. Over the course of the mother's diagnosis and treatment, the mother-daughter pair had to live in separate households for the majority of the time (more than 50% of the time). This included, but is not limited to, adult daughters living on their own, daughters being away at college, or daughters living with another family member. This criterion was chosen to ensure a mother-daughter population in which communication was essential to maintaining a bond.

Once participants were considered as being eligible to participate, mother and daughter were sent separate online surveys to complete. To pair mother and daughter surveys for later analysis, participants began the survey by creating a unique identifier. By entering the month and year of their birthday, xx/xxxx, their first, middle and last initial, as well as the same information for their mother or daughter, this identifier would be the same for the pair. If a participant did not have a middle initial, they were asked to include an X. Identifiers looked as follows: 11/1990 TLN 03/1953 CLN. Once surveys were collected, these identifiers of mother and daughter were paired and then replaced with a number identifier. Mother identifiers included a 0 at the end. Daughters included a 1 at the end. For example, Participant 010 and Participant 011 made up a mother-daughter Pair 01, respectively.

*Participants*

By the end of data collection, 14 mother-daughter pairs had completed the surveys and were able to be paired. In addition to these pairs, 4 daughters and 4 mothers had filled out surveys, but these were not pairs, based on their unique identifiers. The data for these 8 unpaired participants was still kept for analysis.

Reported ages of daughters at the time of mother's diagnosis ranged from 12 years to 47 years. The average age was 27.54 for all 18 daughters (including the ages reported by mothers about daughters that did not complete their half of the survey). All daughters reported to be the biological daughter of their mother who experienced the diagnosis. Only one mother reported having multiple breast cancer diagnoses.

Daughters were asked to report their place of residence and how far this place of residence was from their mother during her diagnosis. Eleven daughters reported living in their own residence at the time of her mother's diagnosis. Six daughters reported living in a residence near the school they were attending. Only 1 participant reported living in a split residence between divorced parents. Nine daughters reported living less than 1 hour away from their mother. Three daughters reported living 2-3 hours away. Four reported living more than 4 hours away.

Upon completion of the survey, participants were given the opportunity to leave their email address to be contacted for a follow-up interview.

## **Chapter 3**

### **Results**

The surveys distributed to mothers and daughters (see Appendix) collected quantitative and qualitative data from both open and closed ended questions. Some questions asked both mother and daughter to evaluate their use of forms of communication before the breast cancer diagnosis and then during the breast cancer diagnosis. Other questions asked about the topics of conversation that frequented the mother-daughter pair before the breast cancer diagnosis and then during the breast cancer diagnosis. These questions were evaluated using a 5-point scale of frequency. Some questions asked mothers and daughters to evaluate communication as a whole during the breast cancer diagnosis. Finally, mothers and daughters were given open-ended questions to further describe how communication changed or did not change over the course of the diagnosis. Both the quantitative and qualitative data will appear in this section to assist in answering the research questions put forth at the beginning of the research.

#### *Research Question 1*

The first research question asked what forms of communication did mothers and daughters use most during the treatment time period? Insight into this question was gathered through closed ended questions on both mother and daughter surveys. Both mothers and daughters were asked to report how frequently they made use of 6 different modes of communication on a 5-point scale (1 = never used, 5 = frequently used). Frequencies were run for each variable to attain the data.

Results (Table 1) show that both mothers and daughters felt as though they used the phone as their most frequent form of communication during the diagnosis, with a mean of 4.24 for mothers and 4.56 for daughters. This ranges between often used and very frequently used. At the other end of the scale, mothers and daughters reported alike again, stating that letters and video chat were their least used forms of communication. These means ranged from 1.28 to 1.44, meaning never used to rarely used.

### *Research Questions 2 & 3*

The next set of research questions asked if either mothers or daughters closed up about certain everyday topics of conversation, during the breast cancer diagnosis, they would have otherwise talked about frequently. I presented the hypothesis that mothers will decrease their level of openness during their diagnosis and daughters would do the same. Insight into these related questions was gathered in two ways. First, 2 5-point scales were presented to both mothers and daughters. Daughters were asked to rate how frequently they talked about 6 different everyday topics of conversation with their mother before her diagnosis and then during. Mothers were presented the same question. The scale ranged 1-5, 1 being never talked about and 5 being very frequently talked about. Next, both mothers and daughters were asked how often they talked to one another using any form of communication before the diagnosis and then during the diagnosis. This scale ranged from 1 to 9, 1 being other, 2 being once a year, and 9 being multiple times a day. To formulate this data, paired sample t-tests were run for the answers of both mother and daughter.

Results for frequency of everyday topics of conversation (Table 2) indicated that both mothers and daughters significantly changed how much they talked about health topics. The mean for mothers talking about health topics to their daughter before diagnosis was a 3.50. During diagnosis, this increased to a 4.33. For daughters, the mean of talking about health topics before their mothers' diagnosis was a 2.94 and after, this changed to a 4.39.

Table 1

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*Frequency of forms of communication used during the diagnosis*

---

Mothers

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Mean</b>
Phone call	0	0	2	9	6	4.24
Text messaging	8	1	2	0	5	2.56
Email	4	4	2	5	2	2.82
Letters	12	2	2	0	0	1.38
Video Chat	13	1	2	0	0	1.31
In-person	1	0	7	3	6	3.76

Daughters

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Mean</b>
Phone call	0	0	2	4	12	4.56
Text messaging	10	0	0	2	6	2.67
Email	2	4	5	5	2	3.05
Letters	15	1	2	0	0	1.28
Video Chat	13	3	1	1	0	1.44
In-person	1	3	4	6	4	3.50

Looking at the level of openness before and during diagnosis (Table 3), both mothers and daughters reported increasing how often they talked to one another. Before diagnosis, mothers reported talking to their daughters an average of 6.94, which indicates “once a week” to “not everyday, but multiple times a week” on the scale. This average increased significantly to 7.44 during diagnosis. Daughters reported talking to their mothers an average of 7.00 before diagnosis and an average of 7.61 during the diagnosis. This indicates “not everyday, but multiple times a week” to “once a day” on the question scale.

#### *Research Question 4*

Research question 4 asked which breast cancer related topics did daughters want to know more about. Addressing this questions used qualitative data, which was obtained in the daughter’s survey through an open-ended question. Daughters were asked what breast cancer related topics they were most interested in. Daughters were then asked, in open-ended format again, how often did their mother talk to them about these topics that interested them.

Most daughters reported wanting to know more about the treatment, surgery and reconstruction options. One daughter wrote, “I was really nervous about her chances of survival. I knew they weren’t good and she wasn’t telling me the truth about that.” Other daughters reported being interested in how their mother was feeling and how she was being supported during her diagnosis and treatment. When answering how often they spoke to their mother about these topics they were interested in, most daughters reported answers of often, frequently, and all the time. Some daughters did report that their mother avoided these topics, even when they asked her about it. “I had to press her sometimes to get ‘true’ answers, but felt in general I did,” reported one daughter.

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Table 2

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*Frequency of everyday topics of conversation*

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<u>Mothers</u>	Before	After	t
Family	4.33 (0.77)	4.39 (0.78)	-0.44
Relationships	4.00 (1.03)	4.33 (1.03)	-1.84 <sup>x</sup>
Current Events	3.29 (0.98)	3.23 (1.03)	0.32
Health and well-being	3.50 (0.86)	4.33 (0.91)	-3.83***
Work	4.17 (0.86)	4.17 (0.92)	0.00
Other topics	3.89 (0.86)	3.94 (1.14)	-0.32
<u>Daughters</u>			
Family	4.22 (1.00)	4.50 (0.92)	-2.05 <sup>x</sup>
Relationships	3.83 (1.10)	4.00 (0.91)	-0.72
Current Events	3.06 (0.87)	2.78 (1.00)	2.05 <sup>x</sup>



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Health and well-being	2.94 (0.94)	4.39 (0.70)	-7.16***
Work	3.83 (0.86)	3.83 (0.86)	0.00
Other topics	3.19 (0.66)	3.19 (0.54)	0.00

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<sup>x</sup> p < .10

\* p < .05

\*\* p < .01

\*\*\* p < .001

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Table 3

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*Frequency of communicating*

---

<u>Mothers</u>	Before	After	t
	6.94	7.44	-2.47*
	(1.11)	(0.98)	

  

<u>Daughters</u>	Before	After	t
	7.00	7.61	-3.34**
	(1.50)	(1.24)	

---

<sup>x</sup> p < .10

\* p < .05

\*\* p < .01

\*\*\* p < .001

*Research Question 5*

Research question 5 asked if there were breast cancer related topics that mothers felt they shared frequently, but daughters thought were talked about less frequently. These data were collected quantitatively through a 5-point scale (1 = never talked about and 5 = very frequently talked about). Mothers were asked how often they talked to their daughter about several breast cancer related topics once they were diagnosed and undergoing treatment. Daughters were asked the same question.

The results (Table 4) showed no significant differences between mothers' and daughters' reported frequencies of breast cancer related topics of conversation.

*Research Question 6*

Research question 6 held two parts. It asked which breast cancer related topics of conversation were easiest for mothers to talk to their daughters about and which topics were hardest. Data was collected qualitatively through an open-ended question asked to only mothers in their survey.

Mothers' responses were descriptive. For topics that were easiest to talk about, a few mothers responded by saying that they could talk to their daughter about anything. More than half reported it easiest to talk about the diagnosis and treatment options, seeking their daughters' opinions. One mother reported it easiest to talk to her daughter about the urgency of the situation to be proactive and the risk for her daughters. Another mother wrote, "we also spoke about her sister and how much she needs to stay on top of having tests because she is 8 years younger." Other answers included ease with topics of reconstruction, side effects, support from family and friends, and logistics of treatment (who would be taking her to and from the hospital).

Table 4

*Frequency of breast cancer related topics of conversation*

<u>Topic</u>	Mothers	Daughters	t
Waiting for results	3.64 (1.21)	3.57 (1.50)	0.17
Coming to terms	3.78 (1.05)	3.57 (1.34)	0.68
Treatment decisions	3.78 (1.25)	3.57 (1.55)	0.59
Logistics of treatment	3.78 (1.25)	3.64 (1.45)	0.38
Side effects	3.86 (0.86)	3.86 (1.35)	0.00
Body image	2.86 (1.41)	3.36 (1.00)	-1.24
Sexuality	2.14 (1.51)	2.28 (0.99)	-0.29
Social support	3.50 (1.29)	3.50 (1.22)	0.00
Feeling alone	2.21 (1.48)	2.43 (1.28)	-0.51

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Sharing and privacy	2.78 (1.42)	2.43 (1.09)	0.81
<u>Topic</u>	Mothers	Daughters	t
Managing other life	3.57 (1.02)	3.36 (1.39)	0.52
Financial problems	2.07 (1.07)	2.28 (1.07)	-0.72
Other breast cancer topics	2.85 (1.14)	2.92 (1.32)	-0.20

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As far as topics that were hardest to talk to their daughters about, mothers cited many emotional topics of conversation. Fear was expressed in many ways as hard to talk to daughters about: fear that the cancer would return, fear of dying, “my fear of her going through the same thing,” what would happen if it was fatal. Many mothers commented on how hard it was to share if they were upset or how difficult her situation was. “You can’t put all that on a 19 year old’s shoulders,” wrote one participant. “I hid my feelings quite a bit from her, I did not want her to worry,” wrote another. “I tried to not burden her with a lot of details of discomfort, as that is not my way”. One mother reported the hardest topic to talk about was the diagnosis itself: “simply telling my daughter I had breast cancer”. One mother reported, “telling my daughter about the diagnosis and the test results when they weren’t what we had hoped for was very hard”.

Citing feelings of isolation and being alone as the hardest to talk about, one participant reported, “I was able to discuss this much easier with other breast cancer survivors. It was like you needed to be a survivor to really understand some of the emotions that came and went.” Other hard topics mentioned briefly by some participants include sex, financial and marital stressors, hair clogging the drain, and side effects. Only one participant reported that nothing was hard to discuss, except for the fact that the breast cancer could be genetic.

### *Hypothesis 1*

I hypothesized that mothers and daughters would both agree that mothers were the ones that could have helped open communication more during her diagnosis and treatment. To test this, mothers and daughters were asked who they felt could have helped open communication between the two of them. Choices included myself, my mother (for daughters), my daughter (for mothers), a professional, or other. Participants could check all answers that they felt applied. Data was then run through a crosstabs test to formulate the results. The results are only available for 14

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mothers and daughters because these were the 14 pairs that completed the study. The additional 4 mothers and 4 daughters that were not pairs were not included in this data.

Overall, 9 of 14 daughters chose themselves as someone who could have opened conversation more (see Table 5). In comparison, only 2 mothers felt their daughter could have done more to open communication. While those 2 mothers had daughters that felt the same way, in 7 pairs, the mother felt the daughter couldn't do more, while the daughter felt she could have. Turning to questions focused on the mother (Table 6), no mothers felt as though they could have done more to open communication. On the other hand, 7 of 14 daughters reported that they felt as though their mother could have helped open communication more.

Table 5

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*Daughters opening communication*

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Mother's response: "My daughter could have helped open communication"				
Daughter's response: "I could have helped open communication"		No	Yes	Total
	No	5	0	5
	Yes	7	2	9
	Total	12	2	14

Table 6

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*Mothers opening communication*

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Mother's response: "I could have helped open communication"				
Daughter's response: "My mother could have helped open communication"		No	Yes	Total
	No	7	0	7
	Yes	7	0	7
	Total	14	0	14



## **Chapter 4**

### **Discussion**

Although the sample for this study was small, some of the results are significant and worth noting. The most frequent mode of communication used by mothers and daughters over the course of the mother's diagnosis and treatment was the phone. Letters and video chat were the least used modes of communication, along with email. The frequency of most everyday topics of conversation remained the same, but both mothers and daughters reported an increase in health topics in conversation during the diagnosis. Both mother and daughter reported an increase in the frequency that they communicated with one another once the mother's diagnosis and treatment began.

Many qualitative themes existed among daughters and mothers. Most daughters disclosed that they were interested in how their mother was feeling during her treatment and how she was being supported emotionally. The majority of daughters reported that they talked to their mother often and frequently about these two topics that interested them the most. When asked what topics were easiest to talk to their daughters about, mothers all had a common theme saying diagnosis and treatment options, as they sought their daughters' opinions. Another theme among mothers was finding it easy to talk to their daughters about their own risk and taking steps to be proactive with their breast health.

When asked what topics were hardest to talk to their daughters about, mothers had a common theme of fear. This referred to the fear of recurrence of breast cancer, the fear of dying and the fear of their daughter going through the same thing. Most mothers found these topics hardest to talk about because they did not want to burden or worry their daughters. One

participant reported it was just easier to talk to other breast cancer survivors about certain topics, as they would better understand the emotions being felt.

The crosstabs results for who could have helped open up communication between mother and daughter revealed that mothers felt they had done enough. Mothers also felt that daughters did enough, as only 2 mothers reported that their daughter could have helped open communication more. Daughters on the other hand revealed that they felt that both themselves and their mothers could have helped open up communication. Nine of 14 daughters reported that they could have helped open communication and 7 of 14 reported that their mother could have helped open communication more.

### *Implications*

The average age reported by daughters of this study was 27.54. As mothers and daughters age, their relationship gets reshaped along the way. When daughters grow older, they are likely to grow closer to their mother or at least better understand the relationship they have with their mother. Keeping this in mind, one may question how the results of this study may have differed if the mean age of daughters were lower. If the mean age had been somewhere between 18 and 22, when the mother-daughter relationship is not as well established or perhaps goes through some major changes as a daughter enters adulthood, the results may have differed. Perhaps mothers would have reported different topics of conversation being easy and hard to talk to their daughters about.

Daughters at a younger mean age may be interested in different topics related to their mother's breast cancer. Instead of seeing themes of daughters being interested in how their mother was feeling and how she was being supported, they may be more interested in their own health. Daughters may instead have more questions, as they may not be getting clinical breast exams yet. Daughters between the ages of 18 and 22 are likely to be away at college. They may feel overwhelmed trying to communicate with their mother about what is going on in her life,

while also trying to stay on top of her own life at college, whereas daughters in this study were likely to be living an established life on their own for a while and understood how to interact with their mother, while maintaining their away-from-home lifestyle.

All daughters in this study were biological daughters. Many mothers reported talking to their daughters about being proactive with their own breast health and also their risk. This raises thoughts about this type of conversation occurring between a mother and her stepdaughter or adopted daughter. Without the genetic risk, would mothers still feel the need to talk to their daughters as much about risk and being proactive? Risk and being proactive are still very important topics to be discussed with young women, even without a family history of breast cancer. Not only should mothers be encouraged to share genetic risk, but also should share other risk factors with their daughters, whether they are biological or not.

Although the use of phone was reported as the most frequent mode of communication, it is important to look at the modes of communication that were least frequented. Letters and video chat were the least used methods of communication. Letters were most likely not used much because their inefficiency as related to time, and the convenience and availability of phones. The less used video chat could be a valuable and underused source of communication for mothers and daughters though. Video chat allows for face-to-face interaction to occur when mothers and daughters are actually very far apart. This allows for more emotion to be expressed to one another and will give more insight into how mother and daughter are feeling, without needing to say it verbally. Daughters should encourage their mothers to take advantage of the available technology such a video chat. Texting is another method less used of communication by the participants in this study. Especially for younger, college-aged daughters, texting can serve as a timesaving means of staying connected to their mother. If mothers feel comfortable, they should try texting their daughters to communicate, when appropriate. Texting does disallow a great deal of emotion, though, so it is important not to rely solely on this mode of communication.

Results show that, for the most part, mothers felt as though neither mother nor daughter could have done more to help open up communication. Results from daughters show something quite different, showing that they thought both themselves and their mother could have done more to help open communication. Within the qualitative data, it is apparent that mothers found it harder to disclose some information, wanting to lessen the burden on their daughters. It appears, though, that daughters are still putting a lot of responsibility on themselves to help out the communication relationship. Although mothers seemed to feel as though neither she nor her daughter could have helped make communication better, perhaps mothers are not expressing that they are satisfied with communication. Mothers should be encouraged to thank their daughters for the conversations they have with one another when they are satisfied with the communication at hand. This may help reassure daughters they are giving their mother what she needs during the conversation. To address the disconnect between daughters wanting more out of mothers to open communication, mothers should be made aware of this as well. Even if they choose to withhold information from their daughter in order to make her worry less, they should take the time to talk with her about some personal matters, to make her feel included. Daughters should also be encouraged to let their mothers know when they would like to know more information. Mothers can aid this by asking daughters if they have questions about anything. This will allow a time for daughters to show mothers there is information they would like to know that is not being shared. In turn, this would hopefully show daughters that mothers would like to work on opening up communication in the relationship.

The common theme of fear of death was found in the qualitative answers for mothers, as they found fear of death very hard to talk to their daughters about. It is clear that mothers could use help talking about this sensitive topic to their daughters. Although all of the women in this study were breast cancer survivors, one must think about the implications on a daughter when her mother does not survive. What questions will she be left with if her mother loses her battle with

breast cancer? Who will be there to answer these questions for her? When a breast cancer patient is undergoing treatment, it may be necessary for a healthcare professional to prepare her to have this type of conversation with her daughter or perhaps another friend or family member who will be there for her daughter if she passes. The communication then moves from the mother to the next figure in the daughter's life to help her understand breast cancer.

Participants in this study were asked to report on the communication that occurred before and during a mother's breast cancer diagnosis and treatment, but it is certain that the communication between mother and daughter did not stop once the mother reached cancer survivorship. One may wonder if the communication slowly regresses back to how it was before the breast cancer diagnosis or if it will forever change to center around health and very frequent communication. If daughters felt as though they could have done more, perhaps they need help coping with this burden within the relationship. Mothers may need more insight into this, in order to reassure their daughter that she was supportive enough communicatively throughout the treatment.

### *Limitations*

Although this study had great strength in using dyadic data with its mother-daughter pairs, it did have various limitations. The sample used for this study was very small and non-representative. The format of the study was conducted primarily through the Internet. Most recruitment was performed online and the study itself was conducted using an online survey format. This limited the number of participants available based on their ease with technology and availability to the technology being used.

## **Chapter 5**

### **Conclusion**

The aim of this research was to uncover changes in communication that occur between mother and daughter during a mother's breast cancer diagnosis and treatment. By looking at the frequency of communication, methods of communication and topics of communication, the study intended to reveal difficulties, changes and potential solutions to the challenging communication that occurs during a breast cancer diagnosis. In order to better understand the mother-daughter relationship and its connection to breast cancer, a literature review was conducted. Within this review, the mother-daughter relationship as whole was considered, along with the communication that occurs between mother and daughter during stressful events, including breast cancer. This review uncovered stressful breast cancer topics for the women diagnosed, as well as insight into why mothers withhold certain information related to their diagnosis from their daughter.

By collecting dyadic data through an online survey, views of communication could be compared between mother and daughter. Although the sample was of small size, this research was able to gauge how frequently mothers and daughters talked during the diagnosis, what modes of communication they used, and how the topics of conversation changed. This research also discovered that daughters feel as though both mother and daughter could do a lot to help open up communication more during this difficult time. For the future, a larger and more representative sample could yield more significant results.

**Appendix A**

**Survey Distributed to Daughters**

**Mother-Daughter Breast Cancer**

**Communication**

Thank you for participating in this study on mother-daughter breast cancer communication. The first step in this study will ask you to create an identifier that will link your survey with your mother's survey. This identifier is completely unique to you and your mother. It will be kept completely confidential.

\* Required

To create your unique identifier, please enter the month and year of your birthday and your initials, followed by the month and year of your mother's birthday and her initials. \* Sample: 11/1990 TLN 10/1953 CLN

(Note: if you or your mother do not have a middle initial, please use the letter X)

How old were you when your mother was diagnosed with breast cancer?

What year was your mother diagnosed?

What year did your mother conclude her treatment? If your mother is still undergoing treatment, please indicate this.

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Where was your place of residence when your mother was undergoing treatment? This pertains to the place you resided for the majority of time of her diagnosis.

- At a home in my mother's house
- In a residence near the school I attended
- Outside my parent's home, in my own residence
- In a residence with another family member, who was not my mother
- Other:

Approximately how long did it take you to get from your place of residence to where your mother was living when she was undergoing treatment?

- Less than one hour
- 1-2 hours
- 2-3 hours
- 3-4 hours
- More than 4 hours

Before your mother's diagnosis, how often did you talk to your mother? This includes all forms of communication: phone call, in-person, text, email, etc.

- Multiple times a day
- Once every day
- Not everyday, but multiple times a week
- Once a week
- Not every week, but multiple times a month
- Once a month
- Not every month, but multiple times a year
- Once a year
- Other:

After your mother's diagnosis, how often did you talk to your mother?

- Multiple times a day
- Once every day



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- Not everyday, but multiple times a week
- Once a week
- Not every week, but multiple times a month
- Once a month
- Not every month, but multiple times a year
- Once a year
- Other:

Please describe how the amount that you talked to your mother changed or did not change after her diagnosis. Please elaborate on the reasons for change or lack of change in frequency of communication.

During your mother's treatment, which form of communication did you prefer to use and why?

During your mother's treatment, please indicate how often you made use of the following forms of communication.

	Never used	Rarely used	Occasionally used	Often used	Very frequently used
Phone call	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Changes in Communication Between Mothers and Daughters During Breast Cancer 37

	Never used	Rarely used	Occasionally used	Often used	Very frequently used
Text messaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Letters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video chat (such as Skype)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In-person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you feel as though topics you talked about with your mother before her diagnosis changed after she was diagnosed and started treatment? Please discuss any topics of conversation that changed, their frequency to come up during her treatment, and any reasons for this change.

How frequently did you talk to our mother about following topics BEFORE her diagnosis?

Changes in Communication Between Mothers and Daughters During Breast Cancer 38

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
Your family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your own and your mother's relationships (with friends or significant others)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Current events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health and well-being (such as practicing health habits, eating a healthy diet, and information about how you were feeling)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your own and your mother's work (professional or school related)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Changes in Communication Between Mothers and Daughters During Breast Cancer 39

How frequently did you talk to our mother about following topics DURING her treatment?

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
Your family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your own and your mother's relationships (with friends or significant others)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Current events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health and well-being (such as practicing health habits, eating a healthy diet, and information about how you were feeling)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your own and your mother's work (professional or school related)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Changes in Communication Between Mothers and Daughters During Breast Cancer 40

How often did you talk about the following health and well-being topics with your mother BEFORE her diagnosis?

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
Nutrition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sinuses/allergies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cold/virus symptoms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feminine health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other health topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please describe how your conversations about health and well-being topics changed or did not change after your mother was diagnosed. Please elaborate on your perceptions of the reasons why your communication about health topics did or did not change.



When your mother was diagnosed and undergoing treatment, how often did you talk to her about the following breast cancer related topics?

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
Waiting for results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coming to terms with having breast cancer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making a treatment decision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dealing with the logistics of treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experiencing side effects of treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coping with body image	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coping with feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Changes in Communication Between Mothers and Daughters During Breast Cancer 42

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
and sexuality					
Getting social support from others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling isolated and alone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Managing information sharing and privacy issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Managing other life events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Addressing financial problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other breast cancer related topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Once your mother was diagnosed and undergoing treatment, who do you feel started conversations between the two of you of about breast cancer related topics more often?

- I started the conversations with my mother more often
- My mother started conversations with me more often than I did
- Both my mother and I started conversations with each other with equal frequency

Changes in Communication Between Mothers and Daughters During Breast Cancer 43

Please indicate how strongly you agree or disagree with each of the following statements Note: Openness and open communication refer to the amount of information disclosed

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My mother engaged in open communication with me during her treatment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mother would confide in me during her treatment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt comfortable asking my mother questions about her treatment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most of the time, I felt positive emotions when my mother confided in me during her treatment (important, useful, informed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Most of the time, I felt negative emotions when my mother would	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



confide in me during her  
treatment  
(overwhelmed, stressed,  
upset)

My mother shared all  
information about her  
treatment with me.

My mother shared no  
information about her  
treatment with me.

I wish my mother had  
communicated more  
openly with me during  
her treatment.

Please describe what breast cancer related topics of conversation were you most interested to talk to your mother about during her diagnosis? Please elaborate as to why you were interested in these topics.

How often did your mother talk to you about the above mentioned topics that you were interested in?

Please describe if you would change how often you and your mother talked about these topics.

How satisfied were you with the level of openness between yourself and your mother during her diagnosis?

- Completely satisfied
- Satisfied more than 50% of the time
- Satisfied 50% or less of the time
- Unsatisfied

If you were not satisfied, who do you feel could have helped improve the level of openness?

Please check all that apply. If you were completely satisfied, please skip this question.

- Myself
- My mother
- Other family members
- A professional (a therapist, a doctor, etc)
- Other:

Please feel free to add additional comments about the communication you experienced during your mother's diagnosis. Include any emotions, obstacles, or successes.

If you would be interested in participating in an interview to further explain your answers, please enter your email below. Thank you for participating this study!

**Appendix B**

**Survey Distributed to Mothers**

**Mother-Daughter Breast Cancer**

**Communication**

Thank you for participating in this study on mother-daughter breast cancer communication. The first step in this study will ask you to create an identifier that will link your survey with your daughter's survey. This identifier is completely unique to you and your daughter. It will be kept completely confidential.

\* Required

To create your unique identifier, please enter the month and year of your birthday and your initials, followed by the month and year of your daughter's birthday and her initials. \* Sample: 11/1990 TLN

10/1953 CLN (Note: if you or your daughter do not have a middle initial, please use the letter X)

What year was your breast cancer diagnosis?

How old was your daughter at the time of your diagnosis?

Before your diagnosis, how often did you talk to your daughter? This includes all forms of communication: phone call, in-person, text, email, etc.

- Multiple times a day
- Once every day
- Not everyday, but multiple times a week
- Once a week

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- Not every week, but multiple times a month
- Once a month
- Not every month, but multiple times a year
- Once a year
- Other:

After your diagnosis, how often did you talk to you daughter? This includes all forms of communication: phone call, in-person, text, email, etc.

- Multiple times a day
- Once every day
- Not everyday, but multiple times a week
- Once a week
- Not every week, but multiple times a month
- Once a month
- Not every month, but multiple times a year
- Once a year
- Other:

Please describe how the amount you talked to your daughter changed or did not change after your diagnosis. Please elaborate on the reasons for the change or lack of change in frequency of communication.

During your treatment, which form of communication did you prefer to use and why?

Changes in Communication Between Mothers and Daughters During Breast Cancer 48

During your treatment, please indicate how often you made use of the following forms of communication.

	Never used	Rarely used	Occasionally used	Often used	Very frequently used
Phone call	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Text messaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Email	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Letters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video Chat (such as Skype)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In-person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you feel as though topics you discussed with your daughter before your diagnosis changed after you were diagnosed and started treatment? Please discuss any topics of conversation that changed, their frequency to come up during your treatment, and any reasons for this change.

Changes in Communication Between Mothers and Daughters During Breast Cancer 49

Which of the following topics did you talk to your daughter about BEFORE your diagnosis?

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
Your family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your own or your daughter's relationships (with friends or significant others)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Current events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health and well-being (such as practicing healthy habits, eating a healthy diet, and information about how you were feeling)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your own or your daughter's work (professional or school related)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Changes in Communication Between Mothers and Daughters During Breast Cancer 50

Which of the following topics did you talk to your daughter about DURING your treatment?

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
Your family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your own or your daughter's relationships (with friends or significant others)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Current events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health and well-being (such as practicing health habits, eating a healthy diet, and information about how you were feeling)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your own or your daughter's work (professional or school related)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Changes in Communication Between Mothers and Daughters During Breast Cancer 51

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
Other topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often did you talk about the following health and well-being topics with your daughter BEFORE your diagnosis?

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
Nutrition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sinuses/allergies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cold/virus symptoms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feminine health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other health and well-being topics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Changes in Communication Between Mothers and Daughters During Breast Cancer 52

Please describe how your conversations about health and well-being topics with your daughter changed or did not change after your diagnosis Please elaborate on your perceptions of the reasons why your communication about health topics did or did not change.

When you were diagnosed and undergoing treatment, how often did you talk to your daughter about the following breast cancer related topics?

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
Waiting for results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coming to terms with having breast cancer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making a treatment decision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dealing with the logistics of treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experiencing the side	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Changes in Communication Between Mothers and Daughters During Breast Cancer 53

	Never talked about	Rarely talked about	Occasionally talked about	Often talked about	Very frequently talked about
effects of treatment					
Coping with body image		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coping with feelings and sexuality		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting social support from others		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeling isolated and alone		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Managing information sharing and privacy issues		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Managing other life events		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Addressing financial problems		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other breast cancer related topics		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Changes in Communication Between Mothers and Daughters During Breast Cancer 55

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
treatment					
I would confide in my daughter during my treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My daughter felt comfortable asking me questions about my treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt comfortable answering my daughter's questions about my treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I shared all information with my daughter during my treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I shared no information with my daughter during my treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish I had communicated more openly with my daughter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Changes in Communication Between Mothers and Daughters During Breast Cancer 56

Strongly Disagree    Disagree    Neutral    Agree    Strongly Agree

during my treatment

Please explain why you chose to be so open or so closed about the information you shared with your daughter.

What information did you feel was most important to share with your daughter? Why?

What information did you choose not to share with your daughter? Why?

How satisfied with the level of openness between you and your daughter during your diagnosis?

Openness refers to the amount of information you both would disclose to one another.

- Completely satisfied

Changes in Communication Between Mothers and Daughters During Breast Cancer 57

- Satisfied more than 50% of the time
- Satisfied 50% or less of the time
- Unsatisfied

Please explain why you were satisfied or why you were not satisfied with the level of openness.

If you were not satisfied, who do you feel could have helped improve the level of openness? Please check all that apply. If you were completely satisfied, please skip this question.

- Myself
- My daughter
- Both myself and my daughter
- A professional (therapist, doctor, etc.)
- Other:

Please feel free to add additional comments about the communication you experienced during your diagnosis. Including emotions, obstacles, successes, etc.

If you would be interested in participating in an interview to further explain your answers, please enter your email below. Thank you for participating in this study!

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# ACADEMIC VITA

Taryn Noll

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## Education

**The Pennsylvania State University**, University Park, PA  
Schreyer Honors College

B.A. in Communication Arts and Sciences, Graduation May 2013

Thesis: Changes in Communication Between Mothers and Daughters During a  
Mother's Breast Cancer Diagnosis

Thesis Supervisor: Dr. Denise Solomon

## Honors and Awards

Anna M. Vincent Scholarship Trust, BNY Mellon & Associates, 2009

Betty J. Lockington Memorial Scholarship, College of Liberal Arts, 2012

Nancy & Joseph Birkle Student Engagement Award, Center for Democratic Deliberation, 2012

Summer Discovery Grant, College of Liberal Arts, 2012

Stand Up Award, Rock Ethics Institute, 2013

## Research Experience

**Department of Communication Arts and Sciences, Penn State, University Park, PA**  
January 2013 – present

**Research Assistant to Lindsey Aloia**

Transcribes video data collection

Codes relational communication data in conflict

Assists in collecting new couple data in the lab

## Research Interests

I have broad interest in interpersonal communication and breast cancer communication, particularly with the mother-daughter bond. I am interested in how patterns of communication change between mother and daughter during a breast cancer diagnosis, as well as the emotional effects of this change in communication. Specifically, I hope to engage in research that discovers the reason for these changes in communication and creates literature on how to keep communication open during a breast cancer diagnosis.

## **Leadership Experience**

The Power of Pink at Penn State, University Park, PA

October 2009 – present

President and Founder

- Responsible for overseeing all aspects of fundraising and awareness events
- Lead weekly meetings to engage and support all members

Penn State Dance MaraTHON, University Park, PA

September 2011 - February 2013

Rules & Regulations Pass Team Captain

- Secured THON Weekend event facility, which sees thousands of spectators and volunteers
- Prepared committees of 40+ members over the course of 5 months for THON Weekend

## **Work Experience**

Philadelphia Affiliate of Susan G. Komen For the Cure, Philadelphia, PA

May 2012 – August 2012

Event Coordinator Intern

- Created professional relationships with vendors, sponsors and donors
- Assisted in acquiring items the Pink Tie Ball Silent Auction

Penn State Fitness, University Park, PA

September 2011 – present

Fitness Instructor

- Prepared and taught 2 fitness classes per week
- Fielded all questions for patrons in the facility and class

Pink Ribbon Stories, State College, PA

January 2011 – May 2012

Writer and Marketing Partner

- Collected 123 stories for final publication
- Developed marketing strategies to sell book