

Spring 2021

## The Effects of Chronic Illness on Sibling Relationship Quality

Caitlin Burkwist

Central Washington University, burkwistc@cwu.edu

Follow this and additional works at: [https://digitalcommons.cwu.edu/undergrad\\_hontheses](https://digitalcommons.cwu.edu/undergrad_hontheses)



Part of the [Development Studies Commons](#)

---

### Recommended Citation

Burkwist, Caitlin, "The Effects of Chronic Illness on Sibling Relationship Quality" (2021). *Undergraduate Honors Theses*. 27.

[https://digitalcommons.cwu.edu/undergrad\\_hontheses/27](https://digitalcommons.cwu.edu/undergrad_hontheses/27)

This Thesis is brought to you for free and open access by the Student Scholarship and Creative Works at ScholarWorks@CWU. It has been accepted for inclusion in Undergraduate Honors Theses by an authorized administrator of ScholarWorks@CWU. For more information, please contact [scholarworks@cwu.edu](mailto:scholarworks@cwu.edu).

The Effects of Chronic Illness on Sibling Relationship Quality

Caitlin Burkwist

Senior Capstone  
Submitted in Partial Fulfillment of the Requirements for Graduation from  
The William O. Douglas Honors College  
Central Washington University

June 2021

Accepted by:

\_\_\_\_\_  
Katy Tenhulzen, Lecturer, Family and Child Life      4/29/21  
Date

\_\_\_\_\_  
Amy Claridge, Associate Professor, Family and Child Life      4/29/21  
Date

\_\_\_\_\_  
Director, William O. Douglas Honors College      May 6, 2021  
Date

Please note: Signatures were redacted due to security concerns.

## Table of Contents

Title Page.....	1
Table of Contents.....	2
Abstract.....	3
Introduction.....	4
Methods.....	8
Results.....	11
Discussion.....	12
Conclusion.....	15
Acknowledgments.....	16
Sources.....	17
Appendix.....	20

**Abstract**

Children with chronic illnesses have been studied for the psychological effects their illness has on them, such as their quality of life, social functioning, and attachment style. The siblings of these chronically ill children are becoming the topics of research in order to bring to light the effects a child's chronic illness has on this underrepresented population. However, the relationship between the sick child and their sibling has been minimally investigated. This study will add to the literature of how childhood chronic illness impacts the sibling relationship, with the hope that the results will inspire the creation of interventions because the greater understanding of the challenges and needs of siblings can influence future support. This study will investigate how the conflict, warmth, rivalry, and power/status aspects of the sibling relationship are affected when one of the siblings has a chronic illness. This will be accomplished by the use of the Sibling Relationship Questionnaire (Furman, 1968). This measure has been used to compare different relationships within a child's life, to study how a child's emotional understanding develops in certain contexts, and to study the effects of birth order has on the sibling relationship. Parents of both healthy and chronically ill children will be asked to fill out the questionnaire, which will ask them to rate certain aspects of the relationship with their siblings on a Likert scale with a range of answers provided. Results showed a significant difference between groups in regard to power/status, but not for any of the other three aspects. This implies that parents who have a chronically ill child reported more power/status within the sibling relationship than parents whose children are both healthy.

## **Introduction**

### *Chronic Illnesses*

Chronic illnesses are defined as conditions that are professionally diagnosed and last between three months to a lifetime (van der Lee et al., 2007). Cancer, cerebral palsy, diabetes, and asthma can all be classified as a chronic illness according to this definition. Sharpe and Rossiter (2002) states that between five and forty percent of children have been diagnosed with a chronic illness. Families within this five to forty percent of diagnoses generally experience a disruption in family dynamics. The diagnosis, treatment, treatment side-effects, hospitalization, and care for the child who is diagnosed has an impact on all family members (Houtzager et al., 1999). While studies have been developed to investigate the impact on chronically ill children's families as a whole, a focus on the siblings(s) of the ill children has recently increased.

### *Sibling Relationships*

Next to the relationship that consists of a child and its parents, the sibling relationship has the most durable emotional ties (Furman, 1985). By age one, siblings generally spend more time together than with their father and only spend a little more time with their mother (Lobato, et al., 1988). The sibling relationship has been shown to be qualitatively different than the relationship the children have with either their parents or peers (Minnett et al., 1983). According to Buist and Vermande (2014), a sibling relationship is seen as an emotionally intense relationship. Relationships between siblings are expected to be lifelong, whether they are positive or negative, and will have an impact on each other's development. Furthermore, according to McHale et al. (2012), due to the large amount of companionship and contact siblings have during their childhoods and adolescence they influence each other's behaviors and socioemotional adjustment. When discussing adolescence, Furman (1990) states that within sibling relationships, the older the children become, the more equal they become in regard to status/power. In other words, the older sibling, who naturally more nurturant and dominating, no longer holds the position of leader, but becomes equals with their younger sibling(s) (Furman, 1990). Nevertheless, these studies involve healthy siblings, and not ones who have been diagnosed to be clinically ill.

### *Healthy Siblings*

Studies have looked at the effects a diagnosis of a pediatric chronic illness has on the family as a whole and how impactful typical sibling relationship can be on the development of children. However, the siblings of chronically ill children themselves have often been overlooked. These children often view themselves as the forgotten member of the family due to their sibling's chronic illness (Davies, 1993). However, in recent years, these siblings have started to gain empirical interest. Fullerton et al. (2016) had the parents of chronically ill children fill out questionnaires about the sick child's siblings, and the results showed that these children had lower quality of life and more behavioral and emotional problems when compared to a control group. Concerns such as school disruptions leading to isolation, loss of peers, and falling behind in school can cause disruptions in the ill-child's psychological well-being (Barlow, 2005). However, this may be due to the healthy siblings not wanting to concern the rest of their family member's feelings and decide to push certain emotions to the side (Nabours et al., 2018). In addition, a study of siblings of children with cancer showed to have an increased risk of emotional problems (Long et al., 2018) and that for siblings of childhood cancer survivors, posttraumatic stress disorder symptoms were incredibly relevant, even years after recovery (Alderfer et al., 2003). Furthermore, siblings of chronically ill children have been shown to have impaired quality of life when compared to a control group. Concepts such as impaired motor skills and a constant presence of negative emotions were shown when this population took a quality-of-life questionnaire. This shows that a sibling's diagnosis of a chronic illness can affect the healthy sibling both emotionally and physically (Houtzager et al., 2003). The study by Sargent et al. (1995), furthers the pool of knowledge on this topic by explaining that siblings of chronically ill children report feelings of distress due to lack of attention, family disruptions, changes in the ill sibling's behavior, possible death of the sick sibling, and the negative emotions they report themselves having. In other words, siblings of a chronically ill child have to navigate an abundance of emotions and stressful situations, often without the help of their parents. Also, adolescents and young adult healthy siblings have been shown to report the highest level of distress and unmet needs (McDonald et al., 2015).

On the other hand, a study done by Cordaro et al. (2012) had parents fill out questionnaires about their healthy child's competencies, such as academic results and relations with their family, and it found that children with a chronically ill sibling had a greater psychological adaptation than those with healthy siblings. This, could be due to the parents having feelings of denial, wanting to answer in a way they thought the researchers would want to hear, or the child showing they have developed resiliency. Furthermore, the amount of distress a healthy sibling experiences can depend on their circumstances, family functioning, and the sibling's relationships with their family members (Drotar & Crawford, 1985).

The impact a chronically ill child has on siblings has begun to be studied intensely. Unfortunately, there is little research on how having a chronically ill sibling can impact the sibling relationship itself. Fullerton et al. (2016), studied the sibling relationship by using a questionnaire that showed the siblings had lower relative status, or had less power in the relationship, when compared to a control group. Weiss et al. (2001), conducted a study of siblings with children with chronic arthritis by using the Sibling Relationship Questionnaire-Revised to study the aspects of warmth and closeness, rivalry, relative power and status, and conflict within the sibling relationship.

### *Current Study*

There is an abundance of research on this topic. However, an aspect that can be further researched is the quality of the sibling relationship being the primary focus on a study. The current study will be able to focus on how a chronic illness can affect the quality of the sibling relationship. It will do this by focusing on four aspects of this type of relationship, which are warmth, conflict, power/status, and rivalry. Furthermore, a majority of previous studies focus on siblings of childhood cancer, so the focus of the current study will be to compare the parent's perceptions of the sibling relationship between those who have healthy children and those who have a chronically ill child.

The main question of this study is "What is the difference in parental reports on the four aspects of the sibling relationship when comparing sibling pairs with one chronically ill child those with two healthy children?" With that in mind, my hypothesis is that the parent of two healthy siblings will report higher rates of conflict, lower rates of warmth, lower rates of power/status, and higher rates of rivalry,

while the parent of a sick sibling will report lower rates of conflict, higher rates of warmth, higher rates of power/status, and lower rates of rivalry. This is my hypothesis because based on existing literature, siblings of a chronically ill children have been reported to push their feelings aside in order not to add more stress to the situation (Nabours et al., 2018). This may result in them acting in ways that guide the parents into thinking that the healthy sibling is acting in more positive ways than what they are truly feeling.



## Methods

### *Sample*

A total of 93 responses were collected. Unfortunately, 41 of those responses had to be excluded due to incompleteness of the survey. Overall, a total of 52 complete responses were collected. It was a requirement that all of the participants have at least two children who are both under the age of eighteen. If they reported that one of their children had a chronic illness, they were directed to a series of questions in which they were asked what chronic illness they were diagnosed with, if their child was born with the diagnosis, and when they were diagnosed. Over half of the participants stated they had one child with a chronic illness ( $n = 32, 60.4\%$ ) and the rest reported have at least two healthy children ( $n = 21, 39.6\%$ ).

The parents who participants were reported to be majority female ( $n = 46, 95.8\%$ ) with the rest identifying as male ( $n = 2, 4.2\%$ ). Further, this sample identified as mostly white, with 48 participants reporting this with the rest of the participants, unfortunately, not answering this particular question. They also identified themselves as being in their middle-age, with the age ranging from 29 to 62 ( $M = 42.7, SD = 6.5$ ). Also, over half of the participants reported to have a bachelor's degree at ( $n = 27, 56.3\%$ ). The participants also reported to be mostly working full-time with exactly half of the participants disclosing this. Overall, the participants of this study are majority white, middle-aged females who are highly educated.

As for the children who the parents were reporting on, thirty-two children within sibling pairs were reported to have a chronic illness with the remaining twenty-one pairs reporting both children to be healthy. For the children who are chronically ill, only one was diagnosed at birth. The rest were diagnosed at various ages, with the most being reported as being three when diagnosed ( $n = 4, 18.2\%$ ). Diagnoses included asthma, cerebral palsy, chronic kidney disease, heart disease, laryngomalacia, major depression and anxiety disorder, neurodegenerative disease of unknown etiology, osteogenesis imperfecta, PFAPA (Periodic Fever, Aphthous Stomatitis, Pharyngitis, Adenitis), SMA (Spinal muscular atrophy) Type 2, Thyroid disease, Type 1 Diabetes, and Celiac disease.

### *Demographics*

There were several demographic questions that the participant was asked to answer (please see Appendix). The first question asked how many children the participant had in order to make sure they had at least two. If they answer one, they were brought to the end of the survey due to not meeting the study's requirement of having two or more children. They were then asked if one of their children had been diagnosed with a chronic illness. If they answered "no", they were guided to the next section of the survey. If they answered "yes", they were brought to more demographic questions that asked what the chronic illness was, if the child was born at birth, and at what specific age the child was diagnosed at.

The next section of demographic questions asked the participants their age, what gender they identify with, if they are of Hispanic or Latino/a ethnicity, what race they identified with, the highest level of education they have completed, their current employment status, if they were currently in a romantic relationship, and what their current marital status was at the time of the survey. Once they were answered, they were guided to the main part of the survey.

### *Measure*

This study was conducted using the Sibling Relationship Questionnaire – Revised (Parent), or SRQ, that was created by Wyndol Furman (1968). This survey asks the participant questions in which they answered using a Likert scale format with the options "Hardly at all" and "Extremely much" on the opposite ends of the scale. There were also questions in which the answers range from "This sibling is almost always favored" to "\_\_ almost always is favored" (please see Appendix).

The 48 total questions on the scale ask about four aspects of the sibling relationship, which are warmth ( $\alpha = .96$ ), conflict ( $\alpha = .94$ ), power/status ( $\alpha = .74$ ), and rivalry ( $\alpha = .64$ ). This questionnaire asks participants to focus on one particular child in order to answer the questions. For those who have a chronically ill child, they were to focus on that child. If the participants children were both healthy, they were asked to focus on the child who demands the most attention from them. Focusing on one child allows the questionnaire to determine how the particular child interacts with its sibling and help determine what each aspect looks like within that

particular sibling relationship. While there is a version for the sibling themselves to answer, the questionnaire used for the current study was the parent version because the focus of this study is parents' perspective on the sibling relationship. Further, due to the large number of questions, I separated the questions into several sections in order to give the participant a break and not be overwhelmed by a long list of questions. I also changed the language of the answers slightly in order to better match the focus of my study. In the original survey, the answers provided included the statements "Not too much," "Very much," and "Extremely much." These were changed to "Not too often," "Very often," and "Extremely often" within my survey in order to better match the language of the questions themselves and to help that participants better understand what was being asked (please see Appendix). Finally, I changed the order of the questions slightly for their original version in order to make it more understandable for the participants as well as to have a better organization of the questions as well.

#### *Procedure*

This study was conducted through an online, anonymous survey. The SRQ was originally in a paper format, so I transferred it to an online version. The survey was posted via the social media platform Facebook on my personal account and was then re-posted by several other people. The survey was also shared by my faculty mentor in order to get participants as well. In order to recruit participants, I used both the convenience and snowball methods of recruitment.

## Results

### *Power/Status*

Using an independent samples t-test, the current study found that there was a significant difference in power/status between parents' reports of sibling relationships with and without a chronically ill child ( $t(50) = 1.86, p < .10$ ). Parents who reported that one of the siblings was chronically ill reported more power within the relationship ( $M = 2.97, SD = .36$ ), than those who reported about a sibling relationship that was made up of two healthy children ( $M = 2.68, SD = .5$ ). In other words, the sibling relationships in which one child is chronically ill reported higher rates of power/status than the relationships in which both children are healthy.

### *Warmth, conflict, and rivalry*

There were no significant differences found between the two research groups in regard to these three aspects of the sibling relationship.

### *Ad-Hoc Analyses*

When analyzing additional trends in the data, it revealed more power in the sibling relationship when chronically ill child was younger ( $M = 3.10, SD = .49$ ), compared to those in which the child was older ( $M = 2.66, SD = .61; t(44) = -2.67, p < .05$ ). In regard to age, correlation analysis revealed that a negative association between age of either the chronically ill child or the child who demands the most attention from the parent, and both warmth ( $r = -.33, p < .05$ ) and power ( $r = -.34, p < .05$ ). Further, as age increased, the study found an increase in rivalry ( $r = .42, p < .01$ ) as well. There was also a negative correlation between age at which the chronically ill child was diagnosed and reported warmth ( $r = -.58, p < .01$ ). Finally, the study found there to be a negative association ( $r = -.49, p < .01$ ) between conflict and warmth. In other words, the higher the conflict was reported, the less warmth reported within the relationship. Further, there was a positive association found between warmth and power ( $r = .5, p < .001$ ) in which the more warmth was reported within the sibling relationship, the more power was reported as well.

## Discussion

In the end, the only significant results that were found in regard to the study's hypothesis had to do with the power/status aspect of the sibling relationship. The data matched the hypothesis in that parents of a chronically ill child within the sibling relationship reported higher rates of power/status than those who were parents of two healthy children. This could be due to the healthy sibling within the relationship feeling the need to take on the responsibility of helping care for their chronically ill sibling, helping out around the house, or helping their parents by caring for themselves to relieve some of the parent's stress. Further, this could be due to the healthy sibling taking on a more leadership role as well within the relationship. They could be teaching their ill sibling daily tasks, helping them with homework, or simply spend time with them.

When the two groups were combined, the data was examined to find correlations between the sibling relationship aspects and whether the sibling in question was older than younger than their counterpart. The data showed that if the chronically ill child or the one who demanded more attention from their parent was younger, the report of power/status in the sibling relationship was higher. In existing literature, it is shown that the older sibling is naturally more nurturant and dominating than their younger sibling (Furman, 1990). In other words, the older sibling takes on the responsibility and leadership role in regard to their younger sibling. This matches what this current study has found in that if the sibling in question was younger, more power was reported because their older counterpart naturally has the more responsible and leadership role due to the order they were born in. There were no significant results found for the other three aspects of the sibling relationship.

In regard to the ages of the children that were reported on, again when the two groups were combined, the data showed that there was a significant negative correlation between age and power as well as warmth. In other words, as the age increased the rates of power and warmth decreased. In terms of power decreasing, this could be consistent with the siblings becoming more equal the older they become. This is consistent with existing literature that states that as sibling grow older, they become more equal in their power/status within the relationship (Furman, 1990). This could be due to siblings eventually

reaching the same level of development and no longer needing to have a leader of the dynamic that is there to help nurture and teach the younger child. As for warmth, this could decrease as the children age because, again, they are starting to become equals. This could lead the siblings to start living different lives and having different beliefs and perspectives instead of one sibling telling the other what is right and wrong. The older the children get, the less dependent they are on each other, which in turn makes them less warm towards one another. There was also a significant negative correlation found between the age the chronically ill child was at diagnosis and reports of warmth. The data found that the older the chronically ill child was at the time of their diagnosis, warmth was reportedly lower within the sibling relationship at that point in time. This could possibly be due to the fact that since rivalry was shown within this study to increase with the children's age, the siblings are already starting to compete with one another which results in lower warmth levels between the two already. This goes against my initial hypothesis in which sibling relationships who have a chronically ill member will have a report of higher rates of warmth.

A significant, positive correlation between age and rivalry was found as well. The data shows that as the children's age increase, rivalry increases as well. This could be due to the fact that since as the children get older, the more equal they become in power, which could lead them into trying to outperform on another. A sense of competition arises and the sibling begin to compete one another in order to gain their parents affections, to prove one is better than the other, or the youngest could be trying to prove themselves to the oldest. There were no significant correlations found between age and conflict.

#### *Limitations and Future Research*

A limitation for this study was the number of participants. A total of 52 responses were recorded, which resulted in a very small and limited data pool. Within this sample, diversity was lacking as well. The participants were overwhelmingly white, well-educated females. Further, the diversity of the diagnoses was a limitation as well. Each diagnosis reported only had one or two participants each as well as being incredibly different from each other. This makes the results non generalizable. Another limitation

of this study is that only one parent reported on the sibling relationship. Not all family members see things the same way, which would have resulted in different responses within the study.

There are many directions for future research that can be taken based off of this study. Research regarding increased power and declining warmth is a main one. Even with such a small sample, significant results about this were seen. In order to look into this further, qualitative methods or different measures can be used into this in order to investigate this concept in a different way. Further, future research into sibling order and its effects on the sibling relationship, particularly with a chronically ill child, should be explored. Again, qualitative methods or another measure could provide information to better understand this idea better as well. In regard to only one parent reporting on the sibling relationship, future research on this topic should include the perspectives of all family members. Finally, future research should have a larger sample in order to identify unique outcomes depending on the severity of the diagnoses reported and how much it impacts families' day-to-day lives.

## **Conclusion**

Sibling relationships are a complicated research topic to say the least. There are numerous factors that go into them that it can be hard to determine what exactly to research. Deciding to research how the various aspects of sibling relationships differ between two healthy siblings and a sibling relationship in which one is chronically ill was a daunting task. And while the results did not support the entirety of my hypothesis, it was still interesting to analyze the data and determine its possible meanings. There is a lot more to learn about this topic, and if there is one thing for sure that can be taken away from this study, it is that it can lead to numerous routes of future research.

Hopefully, this study contributes to a better understanding of sibling relationships in one way or another. Even with the significant limitations that this study has, it can lead to future research on the same topic in order to gain an even better understanding of the complexities of the sibling relationship. This was a study that was incredibly close to my heart, and it has been an amazing journey from start to finish. Even with the limited results, I learned and gained so much from this experience. I am excited to continue researching this topic in the future, and now know the number of successes and failures that comes with a task like this. It has allowed me the opportunity to utilize what I have been taught the past four years while studying the topic of child life and put it to the test. That is something that I am incredibly proud of and can not wait to continue doing.



**Acknowledgements**

I would like to express my appreciation for my primary mentor, Professor Katy Tenhulzen, who guided me not only throughout this project, but both inside and outside the classroom as well. I would also like to extend my thanks to Dr. Amy Claridge, who helped with the difficult task of analyzing and interpreting the valuable data collected.

### References

- Alderfer, M. A., Labay, L. E., & Kazak, A. E. (2003). Brief report: Does posttraumatic stress apply to siblings of childhood cancer survivors? *Journal of Pediatric Psychology, 28*(4), 281-286.
- Barlow, J. H. & Ellard, D. R. (2005). The psychosocial well-being of children with chronic disease, their parents, and siblings: An overview of the research evidence base. *Child: Care, Health, and Development, 31*(1), 19-31.
- Buist, K. L. & Vermande, M. (2014). Sibling relationship patterns and their associations with child competence and problem behavior. *Journal of Family Psychology, 28*(4), 529-537.
- Cordaro, G., Veneroni, L., Massimino, M., & Clerici, C. A. (2012). Assessing psychological adjustment in siblings of children with cancer. *Cancer Nursing, 35*(1), 42-50.
- Davies, L. K. (1993). Comparison of dependent-care activities for well siblings of children with cystic fibrosis and well siblings in families without children with chronic illness. *Issues in Comprehensive Pediatric Nursing, 16*(2), 91-98.
- Drotar, D., & Crawford, P. (1985). Psychological adaptation of siblings of chronically ill children: Research and practice implications. *Developmental and Behavioral Pediatrics, 6*(6), 355-362.
- Fullerton, J. M., Totsika, V., Hain, R., & Hastings R. P. (2016). Siblings of children with life-limiting conditions: Psychological adjustment and sibling relationships. *Child: care, health, and development, 43*(3), 393-400.
- Furman, W. & Buhrmester, D. (1985). Children's perceptions of the qualities of sibling relationships. *Child Development, 56*(2), 448-461.
- Furman, W. & Buhrmester, D. (1990). Perceptions of sibling relationships during middle childhood and adolescence. *Child Development, 61*(5), 1387-1398.
- Houtzager, B. A., Grootenhuis, M. A., Hoekstra-Weebers, J. E. H. M., & Last, B. F. (2003). One month after diagnosis: Quality of life, coping and previous functioning in siblings of children with cancer. *Child: care, health, and development, 31*(1), 75-87.

- Lobato, D., Faust, D., & Spirito, A. (1988). Examining the effects of chronic disease and disability on children's sibling relationships. *Journal of Pediatric Psychology, 13*(3), 389-407.
- Long, K. A., Lehmann, V., Gerhardt, C. A., Carpenter, A. L., Marsland, A. L., & Alderfer, M. A. (2018). Psychosocial functioning and risk factors among siblings of children with cancer: An updated systematic review. *Psycho-Oncology, 27*(6), 1467-1479.
- McDonald, F. E. J., Patterson, P., White, K. J., Butow, P., & Bell, M. J. (2015). Predictors of unmet needs and psychological distress in adolescent and young adult siblings of people diagnosed with cancer. *Psycho-Oncology, 24*(3), 333-340.
- McHale, S. M., Updegraff, K. A., & Whiteman, S. D. (2012). Sibling relationships and influences in childhood and adolescence. *Journal of Marriage and Family, 74*(5), 913-930.
- Minnett, A. M., Vandell, D. L., & Santrock, J. W. (1983). The effects of sibling status on sibling interaction: Influence of birth order, age spacing, sex of child, and sex of sibling. *Child Development, 54*(4), 1064-1072
- Nabours, L., Liddle, M., Graves, M. L., Kamphaus, A., & Elkins, J. (2018). A family affair: Supporting children with chronic illnesses. *Child: care, health, and development, 45*(2), 227-233.
- Sargent, J. R., Sahler, O. J. Z., Roghmann, K. J., Mulhern, R. K., Barbarian, O. A., Carpenter, P. J., Copeland, D. R., . . . Zeltzer, L. K. (1995). Sibling adaption to childhood cancer collaborative study: Siblings' perceptions of the cancer experience. *Journal of Pediatric Psychology, 20*(2), 151-164.
- Sharpe, D. & Rossiter, L. (2002). Siblings of children with a chronic illness: A meta-analysis. *Journal of Pediatric Psychology, 27*(8), 699-10.
- Tritt, S. G. & Esses, L. M. (1988). Psychosocial adaptation of siblings of children with chronic medical illnesses. *American Journal of Orthopsychiatry, 58*(2), 211-220.
- van der Lee, J. H., Mokkink, L. B., Grootenhuis, M. A., Offringa, M., & Heymans, H. S. (2008). Defining chronic illnesses and health conditions in childhood (0-18 years of age): National consensus in the Netherlands. *European Journal of Pediatrics, 167*(1), 1441-1447.

Weiss, K. A., Schiaffino, K. M., & Ilowite, N. (2001). Predictors of sibling relationship characteristics in youth with juvenile chronic arthritis. *Children's Health Care, 30*(1), 67-77.

## Appendix

# Parent SRQ Survey

---

### Start of Block: Introduction Block

**Q1 Research:** Hello, I am an undergraduate student in the Family and Child Life program at Central Washington University. As a part of my Douglas Honors College course, I am conducting a survey on parent perceptions of sibling relationships in two domains: families who have a child diagnosed with a chronic illness and families who do not have a child diagnosed with a chronic illness. I would very much appreciate you taking a few minutes to complete these questions.

**Purpose:** This research is examining the nature of sibling relationships in general as well as how they can be affected when one of the siblings has a chronic illness. This knowledge will help parents and child life specialists have a better understanding of how having a sibling with a chronic illness affects the sibling relationship.

**Procedure:** This survey should only take between 10-15 minutes to complete, and is completely online.

**Risks/Benefits:** All of the questions are self-report and assess your own opinions and experience. There are little to no risks for participating in this research.

**Confidentiality:** All of the information you provide will be anonymous. Reasonable and appropriate safeguards have been used in the creation of the web-based survey to maximize the security of your responses; however, when using technology, it is never possible to guarantee complete privacy. No efforts, however, will be made to tie any responses provided to you personally, and no identifying information will be requested.

**Voluntary:** Your participation in this survey is completely voluntary. You may elect to participate, and if you chose to begin, you may skip any question that you do not feel like answering or terminate your participation at any time. Declining to participate will in no way affect your relationship with Central Washington University, or with this researcher.

**Contact Information:** If you have any questions or concerns, please contact me at \_\_\_\_\_, or you may contact my faculty mentor, Katy Tenhulzen, at \_\_\_\_\_. I very much appreciate your time in helping me fulfill the requirements for my program!

Signature Statement: I am 18 years old or older, and I indicate my willingness to participate in this research.

Yes (1)

No (2)

Please note: email addresses on this page were redacted due to privacy concerns.

*Skip To: End of Survey If Research: Hello, I am an undergraduate student in the Family and Child Life program at Central Wa... != Yes*

---

Q2 How many children do you have?

- 1 (1)
- 2+ (2)

*Skip To: End of Survey If How many children do you have? = 1*

---

Q3 This survey is going to ask you to answer some questions about the relationship between two of your children. We are looking for two groups of participants: 1. caregivers who have one child with a chronic illness and at least one child not diagnosed with a chronic illness and 2. caregivers who have at least two children, neither of whom have been diagnosed with a chronic illness.

A chronic illness is a condition that is diagnosed by a doctor and lasts between three months to a lifetime. Examples include: asthma, diabetes, autoimmune disorders, heart disease, cancer, cystic fibrosis, sickle cell anemia, etc.

---

Q4 Has one of your children been diagnosed with a chronic illness?

- Yes (1)
- No (2)

*Skip To: End of Block If Has one of your children been diagnosed with a chronic illness? = No*

---

Q5 What is the chronic illness your child has been diagnosed with?

---

Q6 Was the child diagnosed at birth?

- Yes (1)
- No (2)
- 

Q7 At what age was the child diagnosed?

---

End of Block: Introduction Block

---

Start of Block: SRQ Block

Q8 This survey is going to ask you to answer some questions about the relationship between two of your children.

-If you have a child diagnosed with a chronic illness, please consider the relationship between that child and their sibling when you answer the following questions. If you have more than two children, please choose the sibling who is closest in age to the child diagnosed with a chronic illness.

-If you do not have a child diagnosed with a chronic illness, please decide which child generally demands the most attention from you. Then, please consider the relationship between that child and their sibling closest in age when you answer the following questions.

Within the study, the blank line ( ) refers to the sibling with a chronic illness OR the child who generally demands the most attention from you. The term "this sibling" refers to the sibling without a chronic illness OR the sibling who is closest in age to the child who generally demands the most attention from you.

---

Q9 Please answer each question to the best of your ability.

The blank line ( ) refers to the sibling with a chronic illness OR the child who generally demands the most attention from you.

The term "this sibling" refers to the sibling closest in age to the child the \_ refers to.

	Hardly at all (1)	Not too often (2)	Somewhat (3)	Very often (4)	Extremely often (5)
Some siblings do nice things for each other a lot, while other siblings do nice things for each other a little. How often do both _ and this sibling do nice things for each other? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often does this sibling show _ how to do things he or she doesn't know how to do? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often does _ show this sibling how to do things he or she doesn't know how to do? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often does _ tell this sibling what to do? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



How often does this sibling tell \_ what to do? (5)

How often do \_ and this sibling go places and do things together? (6)

How often do \_ and this sibling insult and call each other names? (7)

How often do \_ and this sibling tell each other everything? (8)

Some siblings try to out-do or beat each other at things a lot, while other siblings try to out-do each other a little.

How often do \_ and this sibling try to out-do each other at things? (9)

How often do  
\_ and this  
sibling  
disagree and  
quarrel with  
each other?  
(10)

Some  
siblings  
cooperate a  
lot, while  
other siblings  
cooperate a  
little. How  
often do \_  
and this  
sibling  
cooperate  
with each  
other? (11)

How often  
does \_ help  
this sibling  
with things he  
or she can't  
do by him or  
herself? (12)

How often  
does this  
sibling help \_  
with things he  
or she can't  
do by him or  
herself? (13)

How often  
does \_ make  
this sibling do  
things? (14)

How often  
does this  
sibling make  
\_ do things?  
(15)

    

---

End of Block: SRQ Block

---

Start of Block: SRQ #2

Q10 Please answer each question to the best of your ability.

The blank line ( ) refers to the sibling with a chronic illness OR the child who generally demands the most attention from you.

The term "this sibling" refers to the sibling closest in age to the child the \_ refers too.

	Hardly at all (1)	Not too often (2)	Somewhat (3)	Very Often (4)	Extremely Often (5)
Some siblings play around and have fun with each other a lot, while other siblings play around and have fun with each other a little. How often do _ and this sibling play around and have fun with each other? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often are _ and this sibling mean to each other? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do _ and this sibling share secrets and private feelings? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do _ and this sibling compete with each other? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do  
\_ and this  
sibling get  
mad at and  
get in  
arguments  
with each  
other? (5)

How often do  
both \_ and  
this sibling  
share with  
each other?  
(6)

How often  
does \_ teach  
this sibling  
things that he  
or she  
doesn't  
know? (7)

How often  
does this  
sibling teach  
\_ things that  
he or she  
doesn't  
know? (8)

How often  
does \_ order  
this sibling  
around? (9)

How often  
does this  
sibling order  
\_ around?  
(10)

Some kids spend lots of time with their siblings, while others don't spend so much. How often do \_ and this sibling spend free time together? (11)

How often do \_ and this sibling bug and pick on each other in mean ways? (12)

How often do \_ and this sibling tell each other things they don't want other people to know? (13)

How often do \_ and this sibling try to do things better than each other? (14)

How often do \_ and this sibling argue with each other? (15)

End of Block: SRQ #2

Start of Block: SRQ #3

Q11 Please answer each question to the best of your ability.

The blank line ( ) refers to the sibling with a chronic illness OR the child who generally demands the most attention from you.

The term "this sibling" refers to the sibling closest in age to the child the \_ refers to.

	Hardly at all (1)	Not too much (2)	Somewhat (3)	Very much (4)	Extremely much (5)
Some siblings care about each other a lot while other siblings don't care about each other that much. How much do _ and this sibling care about each other? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do _ and this sibling like the same things? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often does _ admire and respect this sibling? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often does this sibling admire and respect _? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often do _ and this sibling love each other? (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often do  
\_ and this  
sibling have  
things in  
common? (6)

How often  
does \_ look  
up to and feel  
proud of this  
sibling? (7)

How often  
does this  
sibling look  
up to and feel  
proud of \_?  
(8)

How often is  
there a  
strong feeling  
of affection  
(love)  
between \_  
and this  
sibling? (9)

How often  
are \_ and this  
sibling alike?  
(10)

How often  
does \_ think  
highly of this  
sibling? (11)

How often  
does this  
sibling think  
highly of \_?  
(12)

End of Block: SRQ #3

Start of Block: SRQ #4

Q12 Please answer each question to the best of your ability.



The blank line ( ) refers to the sibling with a chronic illness OR the child who generally demands the most attention from you.

The term "this sibling" refers to the sibling closest in age to the child the \_ refers too.

	This sibling almost always gets treated better (1)	This sibling often gets treated better (2)	The children get treated about the same (3)	_ often gets treated better (4)	_ almost always gets treated better (5)
Who usually gets treated better by mother, _ or this sibling? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Who usually gets treated better by father, _ or this sibling? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: SRQ #4

Start of Block: SRQ #5

Q13 Please answer each question to the best of your ability.

The blank line ( ) refers to the sibling with a chronic illness OR the child who generally demands the most attention from you.

The term "this sibling" refers to the sibling closest in age to the child the \_ refers to.

	This sibling almost always gets more attention (1)	This sibling often gets more attention (2)	The children get about the same amount of attention (3)	_ often gets more attention (4)	_ almost always gets more attention (5)
Who gets more attention from mother, _ or this sibling? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Who gets more attention from father, _ or this sibling? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: SRQ #5

---

Start of Block: SRQ #6

Q14 Please answer each question to the best of your ability.

The blank line ( ) refers to the sibling with a chronic illness OR the child who generally demands the most attention from you.

The term "this sibling" refers to the sibling closest in age to the child the \_ refers too.

	This sibling almost always is favored (1)	This sibling is often favored (2)	Neither of the children is favored (3)	_ is often favored (4)	_ is almost always favored (5)
Who does mother usually favor, _ or this sibling? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Who does father usually favor, _ or this sibling? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: SRQ #6

Start of Block: Demographics Block

Q15 How old is the child who ether has a chronic illness OR demands the most attention from you?

\_\_\_\_\_

Q16 How old is the sibling of the child who either has a chronic illness OR demands the most attention from you?

\_\_\_\_\_

Q17 What is the age difference between these two siblings?

\_\_\_\_\_

Q18 Is the sibling older or younger than the child who either has a chronic illness OR demands the most attention from you?

- Older (1)
- Younger (2)
- Other (please specify) (3) \_\_\_\_\_
- 

Q19 What is your age?

\_\_\_\_\_

---

Q20 What gender do you identify with?

- Male (1)
- Female (2)
- Other (3)
- 

Q21 Are you of Hispanic or Latino/a ethnicity?

- Yes (1)
- No (2)
-

Q22 What race do you identify with?

- White (1)
  - Black or African American (2)
  - Native American or American Indian (3)
  - Asian (4)
  - Native Hawaiian or Pacific Islander (5)
  - Other (please specify) (6) \_\_\_\_\_
- 

Q23 What is the highest level of education you have completed?

- Less than a high school diploma (1)
  - High school diploma or equivalent (2)
  - Bachelor's degree (3)
  - Master's degree (4)
  - Doctorate (5)
  - Other (please specify) (6) \_\_\_\_\_
- 

Q24 What is your employment status?

- Employed full-time (40+ hours) (1)
- Employed part-time (less than 40 hours) (2)
- Unemployed (currently looking for work) (3)
- Unemployed (not currently looking for work) (4)

---

Q25 Are you currently in a romantic relationship?

- Yes (1)
  - No (2)
- 

Q26 What is your marital status?

- Married (1)
- Divorced (2)
- Single (never married) (3)
- In a domestic partnership (4)
- Widowed (5)
- Separated (6)

**End of Block: Demographics Block**

---