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A PILOT STUDY USING Q-METHODOLOGY IN AN ONLINE FORMAT WITH PARENTS
OF CHILDREN WITH AUTISM SPECTRUM DISORDERS

CHRISTINE GEORGEANNE KUTYS
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Reviewed and approved* by the following:

Kathryn Drager
Associate Dean for Research and Graduate Education
Thesis Supervisor

Ingrid Blood
Professor of Communication Sciences and Disorders
Honors Adviser

* Signatures are on file in the Schreyer Honors College.

ABSTRACT

Past studies have looked at what factors influence a parent's process when choosing interventions for their child or children with Autism Spectrum Disorder. In the interest of conducting a future study that will have parents prioritize already known factors by having them rank their influence on their decision, this study serves as a pilot. The current study is a feasibility study to determine if Q methodology is a viable research method for this field of study. The study found that several factors were revealed as having the most influence on decision making, and several factors had the least influence. The Q methodology was found to be a viable study method when used online.

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I'd like to thank my parents for always encouraging me to work hard and to pursue my interests whatever they may be.

Chapter 1

Introduction

Since the diagnosis of Autism Spectrum Disorder (ASD) was first created in 1908, the prevalence rate has risen significantly. Today, 1 in every 68 American children are on the Autism spectrum (Autism Spectrum Disorders, 2015). This rate shows a ten-fold increase in the past 40 years. With this increase in prevalence has come an increase in the amount of treatment options available for ASD. This makes trying to choose the “right” intervention from so many a difficult process for parents of children with ASD and so this has become a topic of interest for many researchers. While many studies have looked at what factors influence a parent’s decision-making process for choosing interventions for their child with ASD, few have looked at which of these factors are most influential or how the factors are prioritized. The purpose of the final study is to see how parents prioritize the factors in this decision-making process. This initial study’s focus is to pilot a procedure of using Q methodology for research in this subject field online, and see if it would serve as a viable methodology for the final study. In order to conduct this survey as an effective research study, it is essential to review the past studies on factors to develop background knowledge and to look into past studies using or focusing on Q methodology.

Chapter 2

Literature Review

Decision-making processes have long been studied in the past. However, is the process a parent goes through to make a decision on behalf of their child different than the process they would go through if they had been deciding something for themselves? Even more important, is this process affected when the decision is a major one, such as what treatment to use for their child? Lipstein, Brinkman, and Britto (2011) identified a continuum of parental involvement in the decision-making processes. This range goes from the parents having full responsibility for the decision, to the professional or physician having control over the decision. Between these two extremes are a broad continuum with involvement from both parties. The involvement of both the professional and the parent, called shared decision making, is considered to be the ideal.

Lipstein et al. (2011) scanned research and published articles for any previous studies that were related to a parent's decision making process for medical treatment for their child. With the 55 relevant articles found, the studies' findings were examined and the commonalities between them were compiled. In most of these examined studies, parents indicated that they would prefer to have an active role in the decision making process. Parents also prefer a shared decision making process, rather than having either full responsibility or no involvement in the process. The study also examined factors that influence a parent's decision making process for medical treatment for their child. The research studies examined by Lipstein et al. (2011) showed a variety of influences such as previous experience with similar situations; provider and professional recommendations; recommendations from other parents, family members, or community members; child preferences; and personal and emotional factors. Similar factors to those indicated in the Lipstein et al. (2011) study may also influence parents' decision-making

process when it comes to those of children with ASD. However, there may also be major differences, because these parents of children with ASD hold the primary responsibility for the decision of which interventions to use (Valentine, Rajkovic, Dinning, and Thompson 2010).

Valentine et al., (2010) conducted 49 interviews with 32 parents of children with ASD and 17 clinicians and service providers in Australia and surrounding areas. They found that after a child is diagnosed with ASD, the parents immediately begin to seek out information and research. Parents looked for information regarding ASD local programs, cost of programs, wait list options for treatment, and allied services. Some parents, but not all, were also interested in which treatments had supporting research evidence. The interviewees indicated that the information that they received through their research influenced the interventions that they chose. Parents said that the information they were provided by professionals and information provided at the time of diagnosis also influenced their intervention decisions for their child. Although the acquiring of this information is essential to determine the best option for their child, parents who were interviewed stated that the process could be very overwhelming at times. Even just going online resulted in an avalanche of information, making it hard for the parents to determine which information to listen to.

With so many treatment options available, it is understandable that different parents of children with ASD may choose to use different treatments for their child than other parents. Green, Pituch, Itchon, Choi, O'Reilly, and Sigafos (2006) completed a study that involved surveying parents of children with autism to identify the types and number of interventions they used. The researchers were also interested in seeing if there were certain child or parent characteristics that influenced the interventions a family used. The survey included a list of 111 possible interventions. For each intervention presented, parents were asked to respond if they: a)

were currently using the treatment, b) had used the treatment in the past, but no longer used it, or c) had never used the treatment. A total of 552 responses from parents were collected for the survey. Of the 111 interventions listed in the survey, 108 had been used or were currently being used by a parent survey respondent. The majority of the respondents indicated that they had attained an education level beyond high school (88%) and were from the United States (80%). The mean number of treatments used by a single family was seven, and the largest number of treatments used by one parent was 47. The study found that children with severe autism tended to use more treatments than children with mild autism or Asperger's syndrome. Research also indicated that parents of younger children with autism were likely to be using more treatment options than those of older children. Although the researchers were interested in determining parent factors that influence an intervention decision, the group who responded to the survey was very alike in many characteristics. This lack of diversity made it difficult for the researchers to determine any different traits that could lead to a change in decision.

Other studies focused more on the process that the parents went through to choose the interventions that they would use with their child. Miller, Schreck, Mulick and Butter (2011) conducted a survey to determine what sources parents used to determine and obtain a course of treatment. The survey was conducted online with 400 parents of children with ASD. They found that many parents chose interventions based on recommendations from professionals and other parents of children with ASD. A majority of these parents used many different interventions for their child at once, something they referred to as the "buffet approach." There are so many treatment options available to parents today that many parents choose more than one intervention for their child.

With the need for further research on the process of this decision-making process and the increasing prevalence of autism there have been recent studies that focused on what factors affect a parent's decision about interventions for their child with ASD. A study by Carlon, Carter, and Stephenson conducted in 2012 reviewed 16 previous studies that examined parents identified as having influence in their decision for their children with ASD. Carlon et al. (2012) took these studies and created a comprehensive list of all factors indicated by the studies and showed which were chosen in more than one research setting. The list was comprised of 26 factors that were previously identified by parents and recognized by more than one study conducted.

Through this research review, commonalities were found among studies. Parents most often use more than one intervention for their children with ASD. With so many options available, it makes sense that a family would choose to employ more than one at once. Parents also most often prefer an active role when it comes to medical decisions for their child and, in the case of treatment decisions for a child with ASD, the parent often has the main responsibility for the choice.

A few of the studies reviewed indicated that the evidence supporting an intervention does not always influence the interventions that a parent chooses to use. Since this factor is not the most influential one, as many would think it to be, it is important to determine what factors are highly influential in this process. Some of the studies such as Lipstein et al. (2011), Miller et al. (2011), and Carlon et al. (2012) named factors that may influence a parent's intervention decision for their child with ASD. The factors named in more than one study include recommendations from professionals and other parents, availability of programs in the area, child preferences, and cost of the program. These are just a few of the 26 factors that were found to

commonly influence decisions by the comprehensive study of Carlon et al. (2012). These factors will be the ones used in this research survey.

The studies highlight what factors may be present when making intervention decisions, and a few delved shallowly into how parents make this decision. However, few have focused on how parents prioritize the factors that influence this decision. The purpose of this research study was to see how parents of children with ASD prioritize the factors that influence their decision. In order to conduct the study to see how these factors are prioritized, we must also look first into the research method, Q methodology.

Q methodology is a quantitative research method for analyzing qualitative data (Barbosa, Willoughby, Rosenberg, and Mrtek, 1998) and is used to study subjectivity or a person's point of view. This research method serves to collect information that has both qualitative and quantitative data. It was first developed in the 1930s by William Stephenson who had the "desire to understand what made the individual person unique rather than what characteristics could be found across large populations of individuals" (Wigger and Mrtek 1994, p 9).

According to Corr, the Q methodology process has four phases: developing the Q sort pack, administering the Q sort, factor analyzing the data and interpreting the factors (2001, p 294). In developing the Q sort pack, researchers can draw statements from previous research studies or relevant literature. Then in administering the Q sort, participants are asked to organize the statements or item from the Q sort pack. Participants can first organize the items into three piles: disagree or least important, neutral, and agree or most important. Then, the factors are organized into a shape that has been predetermined by the researchers which is often a flattened normal distribution curve (2001 Corr, p 294). Analysis of the data and interpretation follow from there.

There are stated strengths and limitations to Q methodology. A large strength of this method is that it allows data to be collected on a person's viewpoints and unique characteristics. This may be especially useful for health fields which aim to be patient centered practices. This methodology also allows researchers to see differences in viewpoints among a population. Using this method provides data as to how much in agreement a participant is with something, but more importantly it asks the person to rank the items in order of agreement giving more insight than studies that simply put a label on items (Corr 2001).

There are also limitations to using this type of research method. This process takes time and does not often have a set time limitation for a survey. Participants may take longer to rank factors in relation to each other than they would if they were asked to simply put each item in a pile of agree, neutral, or disagree. Also, since the factors may be explained by researchers in the setting, research bias may occur (Corr 2001).

Q methodology has long been argued for use in health care fields in an in-person survey format. However, researching the method yielded little examples of researchers using this method in an online survey format. Before implementing a Q methodology survey with parents of children with ASD, it is important to test the feasibility of an online format. Therefore, the current study sought to address the following research question: Can a Q methodology survey be implemented in an online format with test subjects and yield results demonstrating high priority and low priority items?

Chapter 3

Method

Survey

The current study was conducted as a survey online with people selected from the general population. In developing the Q sort pack, the researchers chose 26 items that had already been named as influential factors in choosing an intervention for a child with ASD by the research study of Carlon et al (2012). The participants were asked to sort and prioritize these items using Q sort, first putting the items into three organized labels, and then further ranking them in order of importance. These factors included child benefit or progress or lack of progress with the intervention, parent satisfaction with the intervention, specific needs of the child, time management conflicts, and information from the popular media (TV, magazines). The full list of the 26 factors can be found in Appendix A.

Participants

Respondents for this study were found using a recruitment message sent out over social media and by recruitments made in person. Participants for this study were peers or family members of one of the researchers. For this feasibility study there were 11 participants. The ages of these respondents ranged from 20 to 53 years old. Of the 11 respondents, 5 were female and 6 were male. All are residents of one the areas of State College, PA, or Glen Mills, PA. Participant demographics are in Table 1.

Table 1. Participant Demographics

Participant	1	2	3	4	5	6	7	8	9	10	11
Gender	F	F	F	M	F	M	M	M	M	F	M

Age	21	37	20	21	53	21	20	53	27	21	20
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The survey was conducted online on a laptop. The researcher was present and in the same room when the participants were taking the survey. This allowed the participants to clarify any misunderstandings they had about the wording of factors or the research methods. These clarifications allowed for a more accurate response pool.

Procedure

The research consisted of two sections: a three part sorting and a Q methodology sorting. For the first sorting section, the participant took all of the 26 factors and sorted each one into one of three categories based on the importance of that factor in the parent's decision of interventions. These categories were least important, somewhat important, and very important. Participants could place as many factors into each category as they desired.

The second part of the survey used Q methodology. The process allows the respondent to rank items in relation to each other. For this study, the parents were asked to rank the factors in relation to each other by placing them into a pyramid. The picture below shows the pyramid model that the participants were asked to follow:

Pyramid sorting for Person 6:

	-4	-3	-2	-1	0	1	2	3	4

Figure 1. The sorting pyramid used for Q methodology

The pyramid sorted the factors in order of their influence on the process of choosing an intervention for a child with ASD. The columns ranged from -4, which is the least influential or

having no influence at all, to 4, which is the most influential factor. Following a pyramid format, only a certain amount of factors could be put into each column. The middle column, which was 0 and represented factors having somewhat of an influence, was allowed the greatest number of factors, six. The number of items allowed then dropped to four for the -1 and 1 columns, three for the -2 and 2 columns, and two for the -3 and 3 columns. The two extremes of -4 and 4, the least and most influential, were only allowed one factor each. The participants were given the chance to rearrange their factor pyramid as much as they desired before data collection.

Data Collection

For the first part of the survey, the data were recorded while the parents sorted the factors. The factors were given in a set order, so the participants would go through the items and tell the researcher which category they listed that factor in. The category of least important was coded as -1, somewhat important as 0, and very important as 1. The numbers for each factor were then summed to compare which were indicated the most as being very important to the parents. The highest possible total sum was 11 and the lowest possible sum was -11.

For the ranking section of the survey, the pyramid of each participant was recorded. The factors were each given a corresponding number that were used to record the responses. The number given by each participant for a certain factor was taken and put into a table. The numbers were then summed up for each factor to result in a total sum that represented that factor's influence. The lower the number, the less influence that factor has on the decision-making process. The higher the sum, the more influence that factor has on choosing an intervention. The sums of all of the factors were then compared to see the ranking of influence. The lowest sum that could possibly be given to a factor was -44. The highest possible sum was 44.

Chapter 4

Results

For the first portion of the survey, the data were recorded into a table using the corresponding integer for each category. This table can be found in Appendix B. There were three factors that were indicated as having the highest possible sum of 11 for this portion. This indicates that each respondent chose these factors as being very important in their decision-making process. These factors were child benefit or progress or lack of progress with the intervention, specific needs of the child, and negative effects from the intervention. There were no factors that received the lowest possible sum. Since these factors were items that had already been identified as having influence on this decision, respondents were less likely to indicate factors as being least important to them. The lowest sum given was -8 for the factor of information from the popular media (TV, media).

For the Q methodology portion of the study, the numbers were added up into total sums according to factor and presented in a table that ranked them from highest to lowest. The table can be found in Appendix C. The factor that had the highest total sum was child benefit or progress or lack of progress with the intervention with a sum of 36. The second highest factor was specific needs of the child with a sum of 30. The factor indicated as having the least influence was information from the popular media (TV, magazines) with a sum of -36. The second lowest factor was time management conflicts with a sum of -22. The table below shows the three highest and the three lowest factors ranked according to influence:

Factor	Total Sum
Child benefit or progress or lack of progress with the intervention	36
Specific needs of the child	30
Negative effects from intervention	23
Intervention is consistent with cultural and/or religious traditions	-20
Time management conflicts	-22
Information from the popular media (TV, magazines)	-36

Figure 2. Highest and lowest ranked factors

The factors that were given the highest influence tended to be those related to the personality of the child or certain characteristics of the child. These include child benefit or progress or lack of progress with the intervention, specific needs of the child, and negative effects from intervention which were the top three most influential factors.

For the extremes of the most and least influential factors, the responses for the second part of the survey corresponded with those of the first part. However, for the factors that were sorted more towards the middle of the Q methodology pyramid, respondents' placement of factors for the second portion contradicted some of their sorting for the first part. In many instances, participants would rank a factor that had been classified as less important in the first part as being above a factor that they had indicated before was more important.

Chapter 5

Discussion

According to Lipstein et al (2012), the majority of parents prefer a shared responsibility in the role of choosing interventions. This seems to match the data found in this study because factors that were recommendations from various professionals and sources tended to be ranked on the more influential half of the pyramid. Data collected from this study also corresponded with the Miller et al (2011) study showing that parents ranked the influence from recommendations from professionals and other parents of children with ASD highly.

The answers recorded from participant 5 tended to vary a lot from the other respondents. The top ranked influential factor of child benefit or progress or lack of progress with the intervention was chosen as the most influential factor in the second section by 6/11 respondents. Another four respondents put this in the next influential column. Respondent 5 was the only participant to put child benefit or progress or lack of progress with the intervention as something other than a 3 or 4. They recorded it as a 0, which was very different from the other data recorded.

The least ranked influential factor of information from the popular media (TV, magazines) was indicated as having the least influence by 8/11 respondents. The answer recorded from participant 5 once again differed greatly from this norm with a recorded 0 for this factor.

While this participant 5 did have answers that differed from the other respondents, this respondent's data did not have too much influence on the findings. Since so many other participants indicated the two extremes given, participant 5's answers did not affect these

extremes. Instead, this respondent's answers had more influence on the factors ranked more towards the middle of the pyramid.

The factors that were given the highest influence tended to be those related to the personality of the child. This trend shows that parent's first priority in treatment is the well-being of their child. These highly rated factors include child benefit or progress or lack of progress with the intervention, specific needs of the child, and negative effects from intervention which were the top three most influential factors. The least influential factors tended to be factors that did not relate as strongly to the characteristics of the child. These factors included information from popular media (TV, magazines) and time management conflicts.

The extremes were given sums that differed largely from the next closest influential factor. The factors more in the middle influential ranks had sums that were much more similar to each other. These findings could be due to the limitations discussed earlier of the methodology used. They could also indicate that these factors are just similarly weighted and these are the factors that differ most from person to person.

Using Q methodology did prove to be effective with this field of study. It allowed the researchers to collect information on individual's views and subjectivity. Using this study in an online format also proved to be effective. Participants indicated little confusion using this format. Any confusion shown was typically over clarifying what one of the items meant, and not over the use of the survey. Those taking the study still took their time and thought carefully about the sorting of their factors. This study found that Q methodology was an effective and valid research method for use online.

Study Limitations

There are some limitations to this study. First, the sample size was very small. The survey only studied a small group of people which may not make these answers representative of a whole population. Also, these participants were not parents of children with ASD, which could greatly influence any differences we will see between these data and that of the final study. This too may have influenced the participants to choose factors without true regard to their meaning, since they did not have a true experience with children with ASD to support their answers. Another factor that may not make this data representative is that all of the participants were residents of Pennsylvania. There was not much diversity in residential areas of respondents. This could skew the data being that some interventions may be more commonly used in this state.

There were some limitations to using Q methodology. While the method was a useful procedure to gain more insight into the ranking of the factors, there may be some ambiguity between the factors that were placed more towards the centers of the pyramids. The respondents seemed to be very certain when choosing the factors they placed as the two extremes of least and most influential. However, as the participants placed factors into the middle columns of the pyramids, they were much more hesitant and often switched factors last minute. If the same participants were asked to take the same exact survey again, the middle columns of their pyramids may end up being somewhat different. Therefore, the test may not have high reliability.

Future Research Directions

This study suggests that Q methodology is an effective research method to use in the fields of health care, speech-language pathology, and therapy interventions. Research using this method in these fields should be pursued. The study suggests that the final research study should implement the Q methodology survey in an online format with parents of children with Autism Spectrum

Disorders. It also suggests that Q methodology is a very useful research method that would be effective

Chapter 6

Conclusion

This study successfully answers the research question posed. Q methodology was found to be a feasible method of study when used in an online format. This methodology allowed researchers to collect data on the individuals' subjectivity. Q methodology is a promising research method that will be incredibly beneficial for use in health care and many other fields of study.

The data collected shows how parents may prioritize factors that influence their decision of interventions. The data collected in this pilot study allowed the researchers to hypothesize what these results might mean if they had been taken from a true participant pool of parents of children with ASD.

The data shows a common trend that participants tend to receive the most influence from factors that relate to their child personally. Factors that have less influence are those that do not take child characteristics into account. This allows the researchers to hypothesize that if these were true results, there are indications that parents' main focus for interventions is on how the interventions affect their child.

The second lowest indicated factor was time management conflicts. It may be interesting to see if the parents who indicated this factor as having little influence have other children. Seeing if the size of the family and factors such as other children affect the way they rank factors could be a topic of interest for future study.

Using Q methodology proved to be a benefit for this research study. This method made it easy to collect data on participants' subjectivity and see unique views of each survey taker. The survey was effective in an online format, and could be an extremely useful method for research in health care fields in the future. Knowing that the method can be used online can help to expand greatly the number of participants that can be reached in a survey and also the participant pool, making data more representative of a population.

Appendix A

Factors in the Decision-Making Process

This appendix shows a list of 26 factors identified in the Carlon et al study (2010) as having influence on the process a parent goes through when choosing interventions for their child or children with Autism Spectrum Disorder (ASD).

Factors:

- Recommendations from health professionals
- Recommendations from school professionals
- Recommendations from other parents of children with ASD
- Recommendations from ASD books
- Recommendations found on the internet
- Information received from lectures/conferences/workshops attended
- Information from the popular media (TV, magazines)
- Availability of programs in area and schools
- Availability of services through public/private health systems
- Availability of alternative interventions
- Wait time for the program
- Cost of the program
- Child benefit or progress or lack of progress with the intervention
- Parent satisfaction with the intervention
- Specific needs of the child
- Research evidence: scientifically proven therapy
- Time management conflicts

- Expected duration of the intervention
- Access to funding for interventions
- Child's willingness to comply with the intervention
- Negative effects from the intervention
- Compatibility with other interventions in place
- Impact of the intervention on the family
- Intervention is consistent with cultural and/or religious traditions
- Familiarity with the intervention
- Ability to implement the intervention at home

Appendix B

Data from the First Survey Section

This appendix shows a table of the data collected from the first section of the survey that had participants perform a three part ranking. The categories that participants were asked to place the factors into were least important, somewhat important, and very important. The respondents could place as little or as many factors in each category that they wanted. The categories were given corresponding numbers to code the data. Least important was recorded as -1, somewhat important as 0, and very important as 1.

DATA FROM 1st SURVEY SECTION												
ITEM	Person 1	Person 2	Person 3	Person 4	Person 5	Person 6	Person 7	Person 8	Person 9	Person 10	Person 11	Total Sum
Recommendations from health professionals	1	1	1	1	0	1	1	1	1	1	1	10
Recommendations from school professionals	0	0	1	-1	0	0	1	0	1	0	0	2
Recommendations from other parents of children with ASD	1	1	1	-1	0	1	0	0	0	0	1	5
Recommendations from ASD books	0	0	1	-1	0	0	1	-1	0	0	0	0
Recommendations found on the internet	0	-1	1	-1	0	0	0	0	-1	-1	0	-3
Information received from lectures/conferences/worksh	0	0	1	-1	0	1	1	0	1	0	0	3
Information from the popular media (TV, magazines)	-1	-1	1	-1	0	-1	-1	-1	-1	-1	-1	-8
Availability of programs in area and schools	1	0	1	0	0	1	1	1	1	1	1	8
Availability of services through public/private health systems	1	1	1	1	0	1	1	1	1	1	1	10
Availability of alternative interventions	0	0	0	-1	-1	1	1	0	1	0	0	1
Wait time for the program	0	0	0	0	-1	1	1	-1	1	-1	0	0
Cost of the program	0	-1	0	1	0	0	1	-1	1	0	0	1
Child benefit or progress or lack of progress with the	1	1	1	1	1	1	1	1	1	1	1	11
Parent satisfaction with the intervention	1	1	1	0	0	1	1	0	1	1	0	7
Specific needs of the child	1	1	1	1	1	1	1	1	1	1	1	11
Research evidence: scientifically proven therapy	0	0	1	1	0	1	1	1	1	0	1	7
Time management conflicts	0	-1	0	0	-1	1	0	0	-1	-1	0	-3
Expected duration of the intervention	-1	0	0	0	-1	-1	1	0	-1	0	-1	-4
Access to funding for interventions	0	-1	1	0	-1	0	1	-1	1	0	0	0

Child's willingness to comply with the intervention	1	1	1	1	-1	1	0	1	0	1	0	6
intervention	1	1	1	1	1	1	1	1	1	1	1	11
Compatibility with other interventions in place	0	0	1	0	-1	1	1	1	1	0	0	4
Impact of the intervention on the family	1	1	1	0	0	1	1	1	-1	1	1	7
Intervention is consistent with cultural and/or religious	1	0	-1	-1	-1	-1	-1	-1	-1	0	-1	-7
Familiarity with the intervention	-1	1	0	-1	0	-1	1	0	-1	-1	0	-3
Ability to implement the intervention at home	0	1	1	-1	0	1	1	0	1	0	0	4
KEY -1: Most Unimportant 0: Somewhat Important 1: Very Important												

Appendix C

Data from the Second Survey Section

This appendix shows a table of the data collected from the section portion of the survey which used Q methodology. Participants were asked to organize all of the 26 factors into a pyramid according to how much influence each factor had on their decision process. The pyramids ranged from -4, being least important, to 4 being very important. The column of 0, being somewhat important, was allowed the most items in their column, 6.

ITEM	Person 1	Person 2	Person 3	Person 4	Person 5	Person 6	Person 7	Person 8	Person 9	Person 10	Person 11	FACTOR SUM TOTAL
Child benefit or progress or lack of progress with the intervention	3	3	4	4	0	4	3	4	3	4	4	36
Specific needs of the child	4	4	0	1	4	2	4	2	3	3	3	30
Negative effects from intervention	2	1	3	2	3	1	0	3	2	3	3	23
Recommendations from health professionals	1	-1	2	3	0	2	0	3	2	2	1	15
Research evidence: scientifically proven	-2	0	2	3	3	0	2	2	4	-1	2	15
Parent satisfaction with the intervention	2	2	1	-1	1	2	3	0	0	2	1	13
Impact of the intervention on the family	0	3	0	1	1	1	2	1	-1	1	0	9
Child's willingness to comply with the intervention	2	2	0	0	1	0	-1	2	-1	2	0	7
Recommendations from other parents of children with ASD	1	2	1	0	1	-2	1	0	-1	1	2	6
Availability of programs in area and schools	0	-1	0	0	0	3	1	1	0	1	1	6
Recommendations from ASD books	1	1	-1	1	2	0	1	-2	-1	0	1	3
Availability of services through public/private health systems	0	0	-3	0	-1	3	0	1	1	0	2	3
Ability to implement the intervention at home	0	1	3	-2	0	0	2	0	0	1	-2	3
Recommendations from school professionals	0	0	1	-1	0	0	0	0	2	0	0	2
Information received from lectures/conferences/workshops attended	-1	0	0	-1	2	1	-1	-1	1	0	0	0
Compatibility with other interventions in place	-1	-2	2	2	-2	-1	-1	1	0	-1	0	-3
Availability of alternative interventions	1	1	0	-3	-4	0	0	0	1	-2	-1	-7
Wait time for the program	-2	0	-1	2	-2	1	-2	-2	1	-1	-1	-7
Access to funding for interventions	-1	0	-3	0	-3	-1	-1	-2	0	-2	0	-13
Cost of the program	-2	-2	-2	1	-1	-2	-2	-3	0	-1	-1	-15
Expected duration of the intervention	-3	-1	-1	0	-3	-2	0	0	-2	0	-3	-15
Recommendations found on the internet	0	-3	1	-1	-2	-1	-2	-1	-3	-3	-1	-16
Familiarity with the intervention	-3	-1	-2	-2	2	-3	1	-1	-3	-3	-2	-17
Intervention is consistent with cultural and/or religious traditions	3	-2	-2	-3	-1	-4	-3	-3	-2	0	-3	-20
Time management conflicts	-1	-3	-4	-2	-1	-1	-3	-1	-2	-2	-2	-22
Information from the popular media (TV, magazines)	-4	-4	-1	-4	0	-3	-4	-4	-4	-4	-4	-36

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ACADEMIC VITA

Christine Georgeanne Kutys
Cgk5057@psu.edu

VOLUNTEER EXPERIENCE

Pennsylvania State University Dance MaraTHON **Fall 2011- Present**

Positions held or currently held:

- Communications Captain
- Independent Dancer Applicant
- Committee Member (3 years)

Hours Donated

- Over the course of four years, donated over 480 hours

Supervisor

- Corbin Reno

Health and Human Development Honor Society **Fall 2012- Present**

Position currently held:

- Executive Board Service Chair

Hours Donated

- Over the course of 3 years, donated 60 hours of service within the community

Supervisor

- Jessica Zaverukha

Red Cross Fall 2014- Present **Fall 2014- Present**

Position currently held:

- Blood Drive Coordinator

Hours Donated

- Donated over 50 hours

Supervisor

- Wendi Keeler

EMPLOYMENT EXPERIENCE

Pennsylvania State University: Communication Sciences and Disorders Department: **Spring Semester 2014**

Position:

- Teaching Assistant for CSD 331: Anatomy and Physiology for Speech and Hearing

Job Requirements:

- Presented review sessions for exams, answered any student questions, and held weekly office hours
- Served as the communication liaison between the teacher and the students

Supervisor

- Ji Sook Park

Philadelphia Freedom Valley YMCA: **Summers of 2013- 2014**

Head Camp Counselor

Position:

- Head Camp Counselor

Job Requirements:

- Lead a group of counselors in working with campers aged 8 and 9 years

Supervisor

- Mike Franchi
-

CONTINUING EDUCATION EXPERIENCE

Not Applicable

RESEARCH/SCHOLARSHIP EXPERIENCE**The Pennsylvania State University: 2012-Present**Position:

- Research Assistant

Research Topic:

- Study how parents of children with Autism Spectrum Disorders choose interventions for their child

Supervisor

- Dr. Kathryn Drager

LEADERSHIP POSITIONS

- Communications Captain for THON 2015 **Fall 2014- Present**
- Executive Board Service Chair for Health and Human Development Honor Society **Fall 2014- Present**
- Vice President for Multicultural Interest Group **Fall 2014- Present**
- Blood Drive Coordinator for Red Cross **Fall 2014- Present**
- Teaching Assistant for CSD 331 at The Pennsylvania State University **Spring 2014 Semester**

HONORS AND AWARDS

- Schreyer Honors College Member **Fall 2012- Present**
 - o Awarded by The Pennsylvania State University
- The Honor Society of Phi Kappa Phi Member **Fall 2013- Present**
 - o Awarded by The Honor Society of Phi Kappa Phi
- Dean's List Every Semester **Fall 2011- Present**
 - o Awarded by The Pennsylvania State University
- Clifford E. Beavan Scholarship **Fall 2011**
 - o Awarded by The Pennsylvania State University Office of Student Aid
- James E. Miller Scholarship **Fall 2012- Spring 2014**
 - o Awarded by The Pennsylvania State University Office of Student Aid