

Impact of Kin on Social Skills; Comparing Singletons and Individuals with Siblings

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Abstract

The current study was designed to assess the differences in the social skills of adults who grew up as only children and adults who grew up with siblings. Research around social skills in respect to different home situations is vital as the healthy development of social skills impact many areas in a person's life including mental health and peer acceptance. (Soto-Icaza, Aboitiz & Billeke, 2015) To investigate the differences a survey was administered on the researcher's social media , which included the Abridged Social Skills Inventory, to gather participants who would remain anonymous throughout. An independent samples t-test was used to analyze the participants (n=50) responses. The results produced did not accept the hypothesis : adults who grew up with siblings will be more advanced socially than adults who grew up as only children. The findings of the study challenge the assumption that adults with siblings have more advanced social skills and correlate with studies that show no difference in the development of social cognition in both groups. The current study advances knowledge in this area and portrays the results that come from adults compared to the vast studies around children and their social skills. It highlights a gap in the research and implies that with a strong parent child relationship, based on past research, only children are not deprived of social interactions compared to children in siblings.

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Introduction

Siblings provide a healthy environment in which necessary developmental steps and social skills are honed and evolved. These early interactions with siblings can have great impact on the healthy development of children. (Dunn, 1983) Older siblings gain higher language and reading scores by instinctively taking on the role of caregiver as demonstrated by their parents and learn to balance their self-concerns in accordance with the needs of their younger siblings. (Brody, 2004) The younger of the two become more sensitive to people's feelings and beliefs due to the promotion of language and cognitive development, emotional understanding and perspective by their older brothers and sisters. (Dunn, 1988) Trust is a key characteristic in building and maintaining stable relationships in life (Wilkins, 2018), being an essential developmental step especially in adolescence the research points to siblings contributing to this developmental milestone by providing an adaptive and positive relational feature for future relationships. (Persram, Howe & Bukowski, 2021) "The Child's Theory of Mind" states that the child has a growing body of knowledge from a young age and can separate mental constructs from physical entities and fundamentally understand the "relationship between individuals' mental states and their covert actions." (Wellman & Cross, 2001) Perner, Ruffman and Leekam, (1994) built on this theory by carrying out research to evaluate how children from larger families compare to children from smaller families in theory of mind tasks. With a sample of eighty preschool children from Brighton, England they engaged in a 'false belief story' enacted with dolls to better interact with the children. There are two sets of stories, both have the same character and the theme of Max looking for his chocolate the difference is that in one story his mother moves it from the cupboard and doesn't tell him and in the second story his older brother tells him he saw someone move it. The set of questions are the same for both stories, one set of

questions is memory based and the other is knowledge-based questions. Results from the study showed that children from larger families could detect the character's mistaken action in the story more often than the children from smaller families, indicating that sibling relationships provide a wide variety of interactions necessary for building a theory of mind. Siblings contribute to an array of areas in their brother's and sister's psychological well-being to their healthy development, language skills and to their social skills also.

Social skills are enhanced in early years by the presence of siblings and the interactions between the two. (Brody,1998) These social skills are vital in preventing attention and cognitive difficulties and poor social functioning. (Mukhtar & Naz, 2021) Siblings have been known to contribute to a child's psychological and social development by providing the necessary social environment. (Chen & Liu, 2014) With the promotion of social skills by siblings they gain a social competence, which gives them the ability to initiate and maintain social interactions with their peers and form lasting bonds with people. (Sang & Nelson, 2017) While individuals from larger families gain these social skills from their siblings on the other side of the spectrum there are children from one child families, or singletons. Studies show to either support the concept of only children faring worse in this area or try to disprove the stereotype that only children tend to be lonelier without siblings, have a selfish streak and overall, not be as adjusted in life. (Falbo,1979) This can be due to overstimulation of attention upon them by their guardians leading to premature puberty and developing a dependent relationship to their parents. (Derakhshanpour et al.,2020) This can be due to the fact children without siblings are more self-motivated and therefore compensate for the lack of aid others have from their brothers or sisters. (Polit & Falbo, 1987) Also in Polit and Falbo's (1987) "siblings as resources" model they view siblings as a source of social capital suggesting that social learning background experiences are

earned from their siblings and those that lack siblings are deprived of these interactions that allow for the development of these social skills. In respect to social skills research points to individuals with siblings having more advanced skills socially than singletons. Children flourish in their friend groups, yet it has been found that singletons have fewer friend groups than their peers. (Miller & Mayurama, 1976) Not only are they less popular in their peer groups, but research points out that they are in turn more likely to be aggressive and be victimized. (Kitzmann, Cohen & Lockwood, 2002) Adolescents without siblings have been found to spend more time alone than with peers compared to the companionship patterns of larger household individuals, indicating a degree of loneliness in singletons. (Wikle, Ackert & Jensen, 2019) These diminished social skills compromise their capacity to benefit from schooling which may snowball in effect to limit their work opportunities as adults. (Richter et al., 2019) Young adults who grew up without siblings engage in fewer social events, suggesting that they may be less sociable. (Trent & Spitze, 2011) Other studies contradict the idea that individuals who grew up as only children lack the necessary interactions to develop their social skills normally.

Research conducted to specifically compare adolescent only children to those who have siblings academically and in respect to their psychosocial adjustment produced results that stated that there is no significant difference between the two with both singletons and adolescents with siblings scoring the same academically and socially and managing about the same in psychological distress. (Chen & Liu, 2014) In other studies conducted children with no siblings tested the same or higher in language ability, productive thinking and imagination. (Yang et al., 1980) Cognitively only children perform markedly better when analyzing cognitive abilities in comparison to their peers with siblings. (Jia, Ji & Jing, 1996) It is found that adolescent only children do tend to spend more time alone and with parents (on average two hours a day more)

than adolescents with siblings but express no happiness or sadness regarding spending more time alone. (Wikle, Ackert & Jensen, 2019) These studies contradict previous research papers and must be taken into consideration when conducting the current study.

Our social skills build the foundation for our imminent relationships. They develop early on in childhood and only continue to flourish and evolve as the years go by. For an individual their social skills are a vital key aspect of their life as long-lasting loneliness is paired with broad-based morbidity and eventually mortality. (Henriksen et al, 2017) Social skills are prominent in forming long lasting critical relationships and the ability to integrate in society to avoid the effects of loneliness. (Cacioppo & Cacioppo, 2014) Stating this it has been established that socialization with peers and family is essential in human development and survival. Yet singletons in early adulthood see their relatives relatively fewer times per year than adults with siblings. (Trent & Spitze, 2011) This current study aims to further knowledge and build on past research that analyzes individuals with siblings and individuals with no siblings in respect to their social skills as there seems to be a lack of research in this area. There is a primary focus on children's social skills and not on the social skills of adults who grew up with siblings or without. By taking these aims into consideration the hypothesis for the study is that siblings have an impact on social skills with the null hypothesis being that siblings have no impact on social skills.

Method

Participants

The sample consisted of 50 participants that were recruited through convenience sampling. Recruitment was approached through social media platforms on the researcher's personal social media pages on Facebook and Instagram. The participation criteria were noted as participants needed to be over the age of 18 to participate and fit into one of the two groups ; having grew up with siblings or grew up in a single child household. Before participation participants were thoroughly briefed on their status of anonymity throughout the study and of their rights to withdraw at any time right before completion of the survey. Informed consent was necessary for participation in order to ethically check that participants understood the information provided in the debriefing sheet and that they participate willingly. 9 participants came from single child homes and 41 came from homes with siblings. 7 participants were male, which made up 14% of the sample and females contributed to 84.6% of the sample with 43 participants. Non-binary and prefer not to say were included as an option when choosing gender as well but was not chosen by participants. Ages ranged from 18 to 42, with the average age of participants being 23. As participants could complete the study online on a device requiring Wi-Fi, and due to the researcher's double nationality the demographics varied. 36 participants from the sample lived in Ireland, 7 lived in Romania, 1 came from Poland and 1 from Spain. 4 participants stated they lived at home and 1 in the countryside.

Materials

The Abridged Social Skills Inventory was first published to assess the social skills and attachment styles for adult Facebook users by Oldmeadow, Quinn and Kowert in 2013. This is an abridged version of the standard Social Skills Inventory (SSI), which consists of six subscales and a 90-item questionnaire. 15 questions are allocated to each subscale. The SSI is composed of emotional and social domains, with: Emotional Expressivity (EE), Emotional Control (EC) Emotional Sensitivity (ES) assessing verbal and non-verbal emotional expressivity and control. The three social components are Social Sensitivity (SS), Social Control (SC) and Social Expressivity (SE). These verbal and non-verbal components assess an individual's ability to communicate, interpret and regulate social cues. (Riggio,1989) The twenty-four questions (four questions per subscale) were chosen in the Abridged Social Skills Inventory were identified by researching the four highest loading items by administrating the Social Skills Inventory to over 600 participants in a previous study conducted by Oldmeadow, Quinn and Kowert. To assess the new Abridged Social Skills inventory the researchers conducted a principal components factor analysis with oblique rotation. Cronbach's alphas were all above .8, with the exception of Emotional Expressivity (EE) which was .53. When performing correlations, the subscales ranged from .007 to .482. (Oldmeadow, Quinn & Kowert, 2013)

Design

The research design used for the study is a cross sectional research design as all the data is collected at a single point in time. By using the Abridged Social Skills Inventory which consists of a Likert scale the data is quantitative in nature. A codebook was formulated to create a summary as a first step to analyze the data. The independent variable for the study was the two groups (group 1= participants with siblings and group 2= only children) and the dependent

variable was the scores from the Abridged Social Skills Inventory. Descriptive statistics were obtained to provide information on the variables. Independent Sample T-tests was used to answer the research question whether there is a difference in the social skills of individuals who grew up with siblings and those who grew up in single child homes. An independent samples-test was conducted on the total scores of both groups, and an independent samples t-test was also conducted on the total for all subgroups on the survey as well. Independent Samples T-Test was chosen as it is used to compare the mean scores of two different groups of participants, which fits best with the research hypothesis.

Procedure

Data for the study was collected through an online platform (Google forms) that administrated the Abridged Social Skills Questionnaire, accompanied with a demographics survey, debriefing sheet and informed consent page. (See appendix 1 for Abridged Social Skills Inventory, appendix 2 for debriefing sheet and appendix 3 for informed consent page) The questionnaire was anonymous using self-report measures. The study was shared on the researcher's personal social media pages (Facebook and Instagram) through a link which could be accessed by clicking it. If participants decided to participate, they were brought to an information page. On this page the study was described in detail, including the area of study, information on the researcher and who was the supervisor involved. A consent sheet was provided specifying that all participants will remain anonymous throughout and that participants can decide to stop taking part in the study and back down at any time throughout by exiting the browser just before submitting their answers. Informed consent was then given by each participant in order to continue to the questionnaire. The first set of questions on the survey were demographic based asking about gender, if they have siblings or are single children and where

they live. After answering these questions, the participants were brought to the Abridged Social Skills Inventory to answer the 24 questions in the survey. The questionnaire was taken by the participants online and took approximately 5-10 minutes to complete. After the completion the participants submitted their responses and were thanked for their participation. As the questions involved did not produce an ethical risk to the participants psychological well-being no further help lines were provided. The researcher's college email was provided in the debriefing page in order to allocate a contact number in case any participants had further questions or concerns.

Results

Descriptive Statistics

Descriptive statistics was performed to generate information on the data. The sample consisted of 50 participants (n=50), which was broken down into our two groups. 82% of the sample were participants that came from homes with more than one child (n=41) and 18% of the data came from singleton participants (n=9). Females took up 86% of participants (n=43) with males 14% (n=7). Ages ranged from 18 to 42 with the mean age being 23 years old (M=23). Descriptive statistics were also performed for continuous variables, which are the total scores for Emotional Expressivity (EE), Emotional Sensitivity (ES), Emotional Control (EC), Social Expressivity (SE), Social Sensitivity (SS), Social Control (SC) and Total Scores (T). Minimum, maximum, mean and standard deviation were analyzed for these variables presented in table 1 below.

Table 1

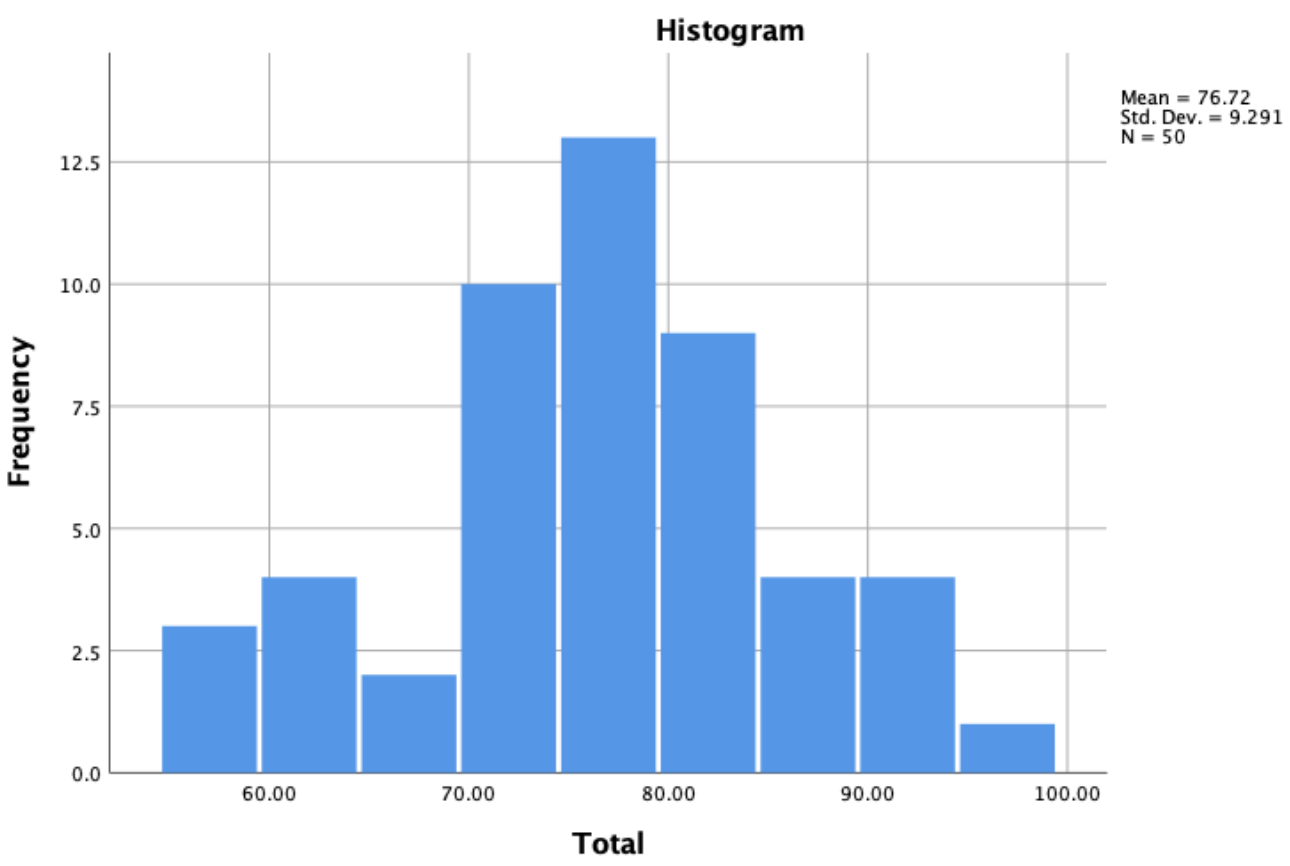
Descriptive statistics for continuous sets from inventory.

	Mean	SD	Minimum.	Maximum
Total EE	12.58	2.47	6	18
Total ES	15.66	3.17	6	20
Total EC	12.44	3.28	7	20
Total SE	12.76	4.45	4	20
Total SS	11.86	4.96	4	20
Total SC	11.42	4.33	4	20
Total	76.72	9.29	57	96

Inferential Statistics

Preliminary analysis was conducted to test for normality. The results of the analysis indicated that the variable Total Scores produced a non-significant result (Kolmogorov-Smirnov, $2.0 > .05$) which indicated normality. To analyze further a histogram was produced to check for a bell curve which can be seen in in Figure 1 below. Scores appear to be reasonably distributed suggesting normality further.

Figure 1



An independent samples t-test was conducted to compare the total social skills scores for singletons and individuals with siblings. Levene’s test for equality of variances produced results ($F=7.125$, $Sig.=.010$) which did not assume equal variances for both groups. Therefore, results from the statistics test were read from second line of the independent samples t-test. There was

no significant difference in scores for participants with siblings ($M=77.42$, $SD=8.21$) and singletons ($M=72.43$, $SD=14.44$; $t(50) = .89$, $p=.40$, two-tailed). The magnitude of differences in the means (mean difference = 4.99% CI: -8.40 to 18.38) was small (effect-size $r = 0.2$). An independent samples t-test was also conducted on the total scores for Emotional Expressivity (EE), Emotional Sensitivity (ES), Emotional Control (EC), Social Expressivity (SE), Social Sensitivity (SS) and Social Control (SC). These results can be seen in table 3 below.

Table 3

Independent-Samples T-test for total scores of EE, ES, EC, SE, SS and SC.

					Sig. (2-	Mean	Std. Error	95% Confidence	
	F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper
Total EE									
Equal variances assumed	.270	.606	.010	48	.992	.00997	1.01583	-2.03249	2.05242
Equal variances not assumed			.013	10.429	.990	.00997	.78967	-1.73977	1.75971
Total ES									
Equal variances assumed	6.397	.015	1.515	48	.136	1.93023	1.27371	-.63073	4.49120
			1.023	6.657	.342	1.93023	1.88730	-2.57961	6.44007

Equal variances not
assumed

Total EC

Equal variances assumed	1.307	.259	-.359	48	.721	-.48505	1.35035	-3.20011	2.23001
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Equal variances not
assumed

Total SE

Equal variances assumed	.147	.703	.666	48	.508	1.21595	1.82481	-2.45308	4.88498
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Equal variances not
assumed

Total SS

Equal variances assumed	4.166	.047	.654	48	.516	1.33223	2.03558	-2.76059	5.42504
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Equal variances not
assumed

Total SC

Equal variances assumed	.894	.349	.555	48	.582	.98671	-2.58983	-2.58983	4.56325
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Equal variances not
assumed

Equal variances not assumed			.447	7.121	.668	.98671	-4.21461	-4.21461	6.18803
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Discussion

The aim of this current study was to compare the social skills of adults who grew up with siblings and those with no siblings. By analyzing the results from the Abridged Social Skills Questionnaire from both groups a better understanding and greater knowledge into this area can be produced for future research. The set of results produced from the study did not accept the hypothesis that there is a significant difference in the social skills of individuals with siblings compared to single children but highlight the gap in literature where focus is brought to adults with and without siblings, whereas focus before was mainly on children. This lack of research around adults who grew up in different types of households can be seen by analyzing past research. By conducting this current study more information can be submitted towards this niche area.

The results produced from the total scores of the inventory did not assume equal variance which meant that results were read from the second line. The results produced from this did not support the hypothesis that there is a significant difference in social skills of participants with siblings and participants that are single children. To analyze this further an independent samples t-test was tested for all the subgroups of the inventory (emotional expressivity, emotional sensitivity, emotional control, social expressivity, social sensitivity and social control). There was no significant difference in these results either with all figures of Sig. (2-tailed) being over alpha .05. Therefore, all sets of results did not support the study's hypothesis.

Previous research points to adult singletons interacting significantly less with relatives and participating less in social activities as well. (Trent & Spitze, 2011) In the model that presents siblings as a resource, individuals without siblings are seen as being deprived of the necessary experiences in social learning that are gained only through interactions with siblings.

(Downey & Condrón, 2004) The results from our current study contradict previous research as no difference has been found between singletons and those with siblings. These findings correlate with the findings of Stronger et al (2019) where a small difference was found in the personality traits of the two groups, but no significant practical difference. With a large sample size of 21,937 New Zealand adults the study held reliability and validity by using the Mini-IPIP6. Prior findings have had a focus on children and social skills(Sand & Nelson, 2017) which may explain the difference in results as this research is focused on adults. Many social developmental milestones are experienced in adolescents (Hair et al , 2002) which may explain the difference in results of studies using children and those using adults. Most of the research that stereotypes individuals that grew up as only children as being less developed socially than individuals that grew up along siblings is centered around children. When analyzing research on adults a different outcome is generally generated as no difference is seen between the two groups, which can be seen in this current study as well. Another explanation for the results presented is that many individuals without siblings compensate for the lack of sibling interactions through close relationships and interactions with their peers and their parents. (Riggio, 1999) Riggio also investigated the differences in personality and social skills of adults with and without children and results portrayed in the study correlate with the ones in this study. No significant difference was found , the only small difference was in the trait neuroticism where adults with no siblings scored slightly higher. Polit and Falbo (1987) produced a quantitative review of only children and personality development where they concluded that the lack of major differences in only children and children with siblings is their parent-child relationships. In a previous meta-analysis of quantitative research papers focusing on only children conducted by Polit and Falbo (1986) no differences were found between singletons and those with siblings

either. In relation to achievements and intelligence only children surpassed their peers ,except for first-borns, in these areas. They argue in the paper that due to the attention from their parents not being shared with siblings only children have high quality interactions with their parents. These high-quality interactions make up for the lack of interactions with siblings. Singletons also tend to prefer activities that they can do alone such as reading. This may be caused by spending more time in the presence of adults and witnessing these activities or spending time alone due to no siblings. (Claudy, 1984) When only children are analyzed in respect to their social activities this may come off as them being socially deprived in comparison to their peers with siblings who contest to spending more time in social activities due to siblings. This may not however transfer to their social skills as they may be just as socially advanced as individuals with siblings but may prefer to spend more time alone. This may highlight a greater sense of independence felt by individuals without siblings as they feel comfort in solitude. Blake (1981) reports that adults who grew up as only children report that they see themselves as happy and satisfied in life and can be seen in the results of the analysis conducted. Studies on only children as adults in comparison to adults with siblings are consistent with previous evidence that discourages the notion that singletons are maladjusted and unhappy. (Glenn & Hoppe , 1984) Not only are individuals without siblings found to be equal to their peers but in many circumstances tend to excel. The stereotype that singletons fair worse in many areas of their life compared to those with siblings may influence previous research as it affects people's judgement and their outlook on single children. (Thompson,1974) This may be the case for children as they have not had time to fully develop and can explain the results produced , but for adult singletons they do not meet the stereotype presented above. The current study agrees with the statement that the stereotype is not

true and individuals that are only children have the same level of social skills as their peers with siblings.

Limitations

There are a number of limitations in the study that must be addressed as they may have impacted the results. Firstly, the sample was collected through convenience sampling on the researcher's social media. This may not be an accurate representation of the population as a whole as the sample pool is limited to online friends of the researchers. This creates a sampling bias. The sample is also at a disadvantage as it is not equally distributed between groups. This can be clearly seen as there are 41 participants with siblings and only 9 that stated they are single children. This led to unequal variances between sample groups, which can be seen in the results of the independent samples t-test. To avoid this sampling bias for further research a larger sample (>50) that is evenly distributed between groups should be used .

The measures used for the collection of data may have affected the thoroughness of collecting viable results. When asking the base questions at the beginning of the survey the researcher's wording confused the participants. The question that is referred to is "Where have you lived most of your life?". The error can be seen when analyzing the results as the researcher intended the question to refer to country of residence. 4 participants answered that they lived "at home" and 1 answered "in the countryside". The question was poorly worded which resulted in the wrong answers being given on demographics. This did not affect the study itself but should be noted as an error on the researcher's part. The Abridged Social Skills Inventory should be noted in this section as well. As it is a new survey it may not have been tested enough to accurately assess social skills. It has been used in 4 studies so far. (Olmeadow et al ., 2013 ;

Panganiban, 2018; Spinelli, 2018; Moeller & Seehus, 2019) The inventory has been used to assess social skills of participants in relation to video games, roleplaying games, loneliness and social media use. For future studies that may have larger financial funding the Social Skills Inventory may be more appropriate in conducting research into this area and more clear and concise wording should be used as to avoid confusion when answering questions in the survey.

A limitation that has affected the research at the beginning of the study was the lack of studies conducted around adult singletons in comparison with adults with siblings. An extensive amount of effort has been appointed to conducting research in the area of children and their social skills while the topic of adults has been neglected. This resulted in difficulty linking the current study to previous studies as the sample pool was different due to the contrast of children and adults.

Study Implications

The aim of this study from the start was to further knowledge into this area and bring attention as very little research has been conducted. The study highlighted the gap in research around adults who either come from single child homes or multiple child homes and their social skills. This specific area is important as with a series of interviews future research can be conducted to analyze how singletons have adapted to lacking interactions with siblings. As a person's social skills are vital to integrate into society it is necessary to contribute more research around this. As the study did not accept the hypothesis it has strengthened past research that has shown that there is not a difference in the social skills of only children and individuals with siblings. (Chen & Liu, 2014) Studies conducted in this area have noted that the parent-child relationship and interactions early on in life contribute enough to an only child's social

development that they are not deprived of any social interactions compared to their peers with siblings. (Kim & Lee, 2021) The current study highlights this as no difference can be found in the social skills of only children and concurs that more emphasis should be rewarded into the relationships of children with their parents. In Ireland, there are agencies and programs implemented that work towards improving parent- child relationships. Tusla designed a program that specifically targets the improvement of relationships between parents and their children as they acknowledge that “children benefit from positive parenting from birth, right through adulthood.” They have developed a strategy that support parents in order to improve outcomes for children that they named the Parenting Support Strategy. (Tusla, 2013) This shows progression in this area , but also highlights the need for further research around the topic of siblings and if parent-child relationships contribute the same as sibling relationships do to a child’s development.

Conclusion

The current study set out to examine the differences in social skills of adults who grew up around siblings and adults that grew up as only children. The hypothesis was rejected as no significant difference was found. This correlates with past research that supports the notion that only children do not develop differently from their peers with siblings. The similarity in development, despite the different upbringing, can be accounted by a positive parent-child relationship. Singletons are not deprived of any social interactions as emphasis is put on them by their parents from a young age. The current study expands on the knowledge around this area and creates a better understanding of the topic of siblings and singletons in respect to their social skills as adults. The study contributes to previous research as it focuses on adults whereas in past literature the focus point was children. Further research is required to better understand this as

more funding may be essential in programs that focus on the parent to help children develop normally in all situations.

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Appendices

Appendix 1.

Abridged Social Skills Inventory listing the items used to assess each component of social skills.

Responses were given on 5-point scales ranging from 1 (not at all like me) to 5 (exactly like me).

Emotional Expressivity (EE):

I usually feel uncomfortable touching other people *.

Sometimes I have trouble making my friends and family realize how angry or upset I am with them *.

I often touch my friends when talking to them.

I rarely show my feelings or emotions *.

Emotional Sensitivity (ES):

I can easily tell what a person's character is by watching his or her interactions with others.

I always seem to know what peoples' true feelings are no matter how hard they try to conceal them.

I can accurately tell what a person's character is upon first meeting him or her.

I can instantly spot a "phony" the minute I meet him or her.

Emotional Control (EC):

I am not very skilled in controlling my emotions *.

It is very hard for me to control my emotions *.

I am very good at maintaining a calm exterior even if I am upset.

I am rarely able to hide a strong emotion *.

Social Expressivity (SE):

I love to socialize. I always mingle at parties.

At parties I enjoy talking to a lot of different people.

I enjoy going to large parties and meeting new people.

Social Sensitivity (SS):

I am very sensitive of criticism.

It is very important that other people like me.

I am generally concerned about the impression I am making on others.

I am often concerned what others are thinking of me.

Social Control (SC):

When I am with a group of friends I am often the spokesperson for the group.

I find it very difficult to speak in front of a large group of people *.

I am usually very good at leading group discussions.

I am often chosen to be the leader of a group.

* Represents a reverse scored item.

Appendix 2.

Hello, my name is Jennifer Gherman and I am a student at the National College of Ireland. I am currently conducting research for my final year dissertation. The research study evaluates the impact of siblings on social skills by comparing the scores of this questionnaire from individuals with siblings and individuals from one child homes. The aim of this research is to assess if there is a difference in the social skills of people who grew up without siblings. You will remain anonymous throughout the study. I am the researcher on this study and will be supervised by Brendan Cullen.

In this study, you will be asked to complete a questionnaire. The questionnaire is called the Abridged Social Skills Inventory. It is composed of 24 questions where you must indicate on a scale from 1 (not at all like me) to 5 (exactly like me) how you feel about the question. The questions will be about social situations. Some questions may be sensitive as they inquire about emotional expressivity. An example of a question is: I am very sensitive to criticism. This will roughly take about 10 minutes to complete.

To take part in the study you must be over 18 and have grown up with siblings or in a single child home.

You may decide to stop being a part of the research study at any time without explanation. To withdraw you just exit the browser tab. As you will be anonymous throughout there is no way of knowing you have exited. Do not feel pressured in any way to take part just do so if you feel you would like to. If you do decide to take part you may withdraw at any point before you submit your answers. After you submit your answers you cannot withdraw as all answers are random and anonymous.

I will be glad to answer your questions about this study at any time. You may contact me at my college email: x18432952@student.ncirl.ie .

Thank You !

Appendix 3.

In agreeing to participate in this research I understand the following: This research is being conducted by Jennifer Gherman, an undergraduate student at the School of Business, National College of Ireland. The method proposed for this research project has been approved in principle by the Departmental Ethics Committee, which means that the Committee does not have concerns about the procedure itself as detailed by the student. It is, however, the above-named student's responsibility to adhere to ethical guidelines in their dealings with participants and the collection and handling of data. If I have any concerns about participation I understand that I may refuse to participate or withdraw at any stage. I have been informed as to the general nature of the study and agree voluntarily to participate. There are no known expected discomforts or risks associated with participation. All data from the study will be treated confidentially. The data from all participants will be compiled, analyzed, and submitted in a report to the Psychology Department in the School of Business. No participant's data will be identified by name at any stage of the data analysis or in the final report. At the conclusion of my participation, any questions or concerns I have will be fully addressed. I may withdraw from this study at any time and may withdraw my data at the conclusion of my participation if I still have concerns. Tick the box if you concisely understand everything that has been stated above and of your own free will agree to participate in this study.