

## The Psychological Impact of Bullying on Children's Personalities and Cognitive Development: A Case Study of Saudi Children

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Received:  
14/09/2023

Revised:  
25/09/2023

Accepted:  
05/02/2024

Published:  
30/02/2024

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Citation: Alassaf, U. F.  
(2024). The Psychological  
Impact of Bullying on  
Children's Personalities  
and Cognitive  
Development: A Case  
Study of Saudi Children.  
*Journal of Educational and  
Psychological Sciences*,  
8(2), 107–115.  
[https://doi.org/10.26389/  
AJSRP.C140923](https://doi.org/10.26389/AJSRP.C140923)

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**Abstract:** This research aims to identify the psychological impact of bullying on children's personalities and cognitive development, a case study of Saudi children. The researcher chose a set of variables (two dependent variables and one independent variable). The dependent variables are Child's personal development and Child's cognitive development. And to know its effect on the independent variable (bullying). The sample consisted of (110) individuals from the Kingdom of Saudi Arabia. The model used by the study was interviews as a tool for collecting data related to the study. The Google Docs tool was used to create the questionnaire. The questionnaire is distributed to a large number of people via emails on social media, WhatsApp, Twitter, and Facebook in both Arabic and English. The study discovered a link between bullying children's personalities and cognitive development the study found a statistically significant relationship between bullying of children's personalities and cognitive development. This study can help Psychologists, academics, and school principals by taking into account the independent variables in this study.

**Keywords:** Bullying, children's personalities, cognitive development, Saudi Arabia Schools, Saudi children.

### الأثر النفسي للتنمر على شخصيات الأطفال والنمو المعرفي "دراسة حالة لأطفال سعوديين"

د. عهد فهد العساف

تخصص علم النفس | كلية التربية والتنمية البشرية | جامعة بيشة | المملكة العربية السعودية  
المستخلص: هدف هذا البحث إلى التعرف على الأثر النفسي للتنمر على شخصيات الأطفال ونموهم المعرفي: دراسة حالة لأطفال سعوديين. وقد اختارت الدراسة مجموعة من المتغيرات (متغيران تابعان ومتغير مستقل). والمتغيرات التابعة هي النمو الشخصي للطفل والنمو المعرفي للطفل. ومعرفة تأثيره على المتغير المستقل (التنمر). وتكونت العينة من (110) فرداً من المملكة العربية السعودية. أما النموذج الذي استخدمته الدراسة فهو المقابلات كأداة لجمع البيانات المتعلقة بالدراسة. تم استخدام أداة Google Docs لإنشاء الاستبيان. ويتم توزيع الاستبيان على عدد كبير من الأشخاص عبر رسائل البريد الإلكتروني على وسائل التواصل الاجتماعي، الواتساب، تويتر، والفيس بوك باللغتين العربية والإنجليزية. اكتشفت الدراسة وجود علاقة بين التنمر على شخصيات الأطفال والنمو المعرفي وجدت الدراسة وجود علاقة ذات دلالة إحصائية بين التنمر على شخصيات الأطفال والنمو المعرفي. يمكن لهذه الدراسة أن تساعد الأخصائيين النفسيين والأكاديميين ومديري المدارس من خلال مراعاة المتغيرات المستقلة في هذه الدراسة.  
الكلمات المفتاحية: التنمر، شخصيات الأطفال، النمو المعرفي، مدارس المملكة العربية السعودية، أطفال سعوديون.

### 1.1 Introduction.

Bullying is defined as the sustained, purposeful hurting of a person or group through physical conflict or online intimidation (via social media). Victims of bullying cannot frequently defend themselves (Jacobs 2013). Physical aggression and bullying in schools both have a detrimental effect on students because they interfere with their academics or schoolwork, which raises the number of dropouts and suicides in schools (Hendricks & Tanga, 2019). Because victims of bullying and cyberbullying don't experience any physical consequences and may thus suffer in silence, the victimization eventually becomes too much for them to handle, and their only option is to end their life, suicide rates have risen over time in schools (Hendricks & Tanga, 2019)

Researchers have been interested in bullying since the first studies were done in Scandinavian nations in the late 1970s (Kodžopeljić et al, 2013). The results of research in many nations have revealed that the frequency of violent behavior among students has been increasing, even though it is very difficult to compare the results of violent behavior in different cultures and educational systems (Kodžopeljić et al, 2013). Additionally, various research findings have indicated that bullying has detrimental and long-lasting effects on all participants (increased depressiveness, anxiety, social isolation, withdrawal, reactive violence, etc.) in victims; (Kodžopeljić et al, 2013). Such findings may account for the ongoing fascination with the bullying issue.

### 1.2 Research Problem:

Bullying is a repetitive, conscious act that harms others due to an imbalance of power between the perpetrator and the victim. Bullying can affect children's development and cause other problems in children's lives. Various studies have shown an association between bullying behavior as perpetrators and victims with long-term cognitive impairment due to bullying. Bullying victimization among schoolchildren is endemic. A student is considered to be bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students. Negative actions can be classified as direct (hitting, kicking, insults, and threats) or indirect (gossip, spreading of rumors, and social exclusion) forms of aggression that cause harm to the victim. Countries across the globe have identified bullying as a leading adolescent health concern which can occur in any setting but typically occurs at school or on the journey to and from school. Children in schools may suffer from verbal or physical bullying, which indicates the presence of problems related to the development of the child.

According to a study (Hendricks & Tanga, 2019), it has been proven that bullying within the school environment negatively affects the psychological performance and academic progress of learners. Exposure to bullying impairs learners' emotions and cognition and ultimately leads to increased levels of anxiety and depression. Hence, it was revealed that low self-esteem, thoughts of self-destruction, and harsh behavioral conditions are long-term effects that victims face. One conclusion drawn from this study is that victims of bullying often choose to miss school out of fear. Therefore, the researcher seeks to identify the problem of bullying that students may face in schools and its impact on the mental, cognitive and personal development of school children.

### 1.3 Research questions

This study tries to answer the following questions:

- a. Is there a relationship between bullying behavior to the cognitive and personality development of primary school students in Saudi schools?
- b. Is there an impact of bullying on personal growth?
- c. How to find out the causes of bullying behavior in children and treatment?

### 1.4 Research objectives.

By doing this study, the researcher hopes to:

- a. determine the relationship of bullying behavior to the cognitive and personality development of primary school students in Saudi schools.
- b. analyze children's behavior and find out the impact of bullying on personal growth.
- c. analyze bullying behavior in children and find out its causes and treatment.

### 1.5 Research Significance:

Since bullying is a repetitive and conscious act that harms others, it can greatly affect the life of the child or the person in general. This study attempts to identify the most important causes of bullying, as bullying affects children's development and causes other problems in children's lives. Various studies have shown an association between bullying behavior as perpetrators and victims with long-term cognitive impairment due to bullying. Accordingly, the study contributes to finding a vital and effective psychological treatment to confront bullying. This is given that bullying is badly affecting the school environment, weakening learners' emotions and cognition and ultimately leading to increased levels of anxiety and depression.

Accordingly, the importance of the study lies in understanding the phenomenon of bullying prevalent among children in Saudi schools and understanding the relationship between bullying behavior and the cognitive and personal development of primary school students in Saudi schools. This comes in light of directing teachers, psychological counselors, and families to the importance of identifying the problem and how to deal with it according to the applied study.

## 2. Literature Reviews

Bullying can have immediate impacts on one's physical and psychological health, such as physical harm, or it can have long-term implications, such as headaches, disturbed sleep, or changing one's physical form. and link it to previous bullying conduct rather than other factors like worry or other unpleasant childhood experiences that can potentially have physical consequences in adulthood (Hager and Leadbeater, 2016).

Children who were bullied had worse physical health than their peers who were not involved, per research by Bogart and colleagues (2014). With regard to the seventh graders who had the worst physical health, 6.4% had never been the target of bullying, 14.8% had done so just in the past, 23.9% had done so only in the present, and nearly a third (30.2%) had done so in both the past and the present. When students were in the tenth grade, these benefits became less obvious. One of the study's drawbacks is that participants' physical health was assessed using subjectively defined bodily symptoms rather than their perceptions of their quality of life as it relates to their health. It is important to understand that this study, as well as previous studies looking at connections between conduct and events, cannot prove.

The hypothalamic-pituitary-adrenal (HPA) axis-based stress system is activated by a variety of psychological and physical stressors, including bullying (Dallman et al., 2003; McEwen and McEwen, 2015). Even though HPA and other hormones are produced to help with adaptation and survival, persistently elevated hormone levels may not always be a good thing. Numerous hormones and other markers alter in level as a result of stress, which also has a variety of physiological and cognitive effects and eventually affects behavior. In order to understand the long-term effects of bullying, it is therefore helpful to have a basic understanding of early adolescent stress as well as, where known, knowledge of specific links between stress and bullying.

Because bullying is typically not reported, researchers found that it had a detrimental psychological impact on victims' academic achievement. As a result, bullied individuals are frequently agitated and anxious without being aware. since of these activities, the victims' academic performance suffers since their attention is diverted from pursuing academic success to separating themselves from everyone else.

Bullying has a detrimental effect on students' (victims') academic progress either directly or indirectly, according to Hendricks & Tanga's 2019 study. Additionally, it has been demonstrated that absences brought on by stress have a negative impact on students' academic progress. Students who encounter bullying are therefore more likely to struggle in school with concerns like mental health problems, learning challenges, language impairments, and other neurocognitive problems. (Perkins and Graham Berman 2012). The interaction of these problems creates a complicated web of limitations, making it difficult to identify the appropriate access points for action. In difficulties, psychological problems and academic ones frequently coexist. (Perkins & Graham Berman 2012)

## 3. Research Methodology

### Research Approach:

The study used a qualitative technique for data collecting because the research design was exploratory in character and based on the researched phenomena. Participants can share their experiences and understanding without fear of criticism from

researchers when adopting a qualitative technique. An exploratory case study was selected as a qualitative research strategy. The case was described as the rise in bullying in Saudi Arabian schools and its negative psychological and interpersonal impacts on the victims. An exploratory case study simply implies that the case is investigated and reported using in-depth techniques from a variety of richly contextualized sources (Denzin and Lincoln 2012).

The researcher does not adopt any information that could change the meaning of anything the participant expresses. The qualitative approach allows the researcher to learn and understand diverse social and cultural contexts. Qualitative data takes the form of comprehensive explanations and experiences of the phenomenon that individuals are researching. This data can include interview transcripts, photographs, audio, and audio and video recordings (Denzin and Lincoln 2012).

### Research Model

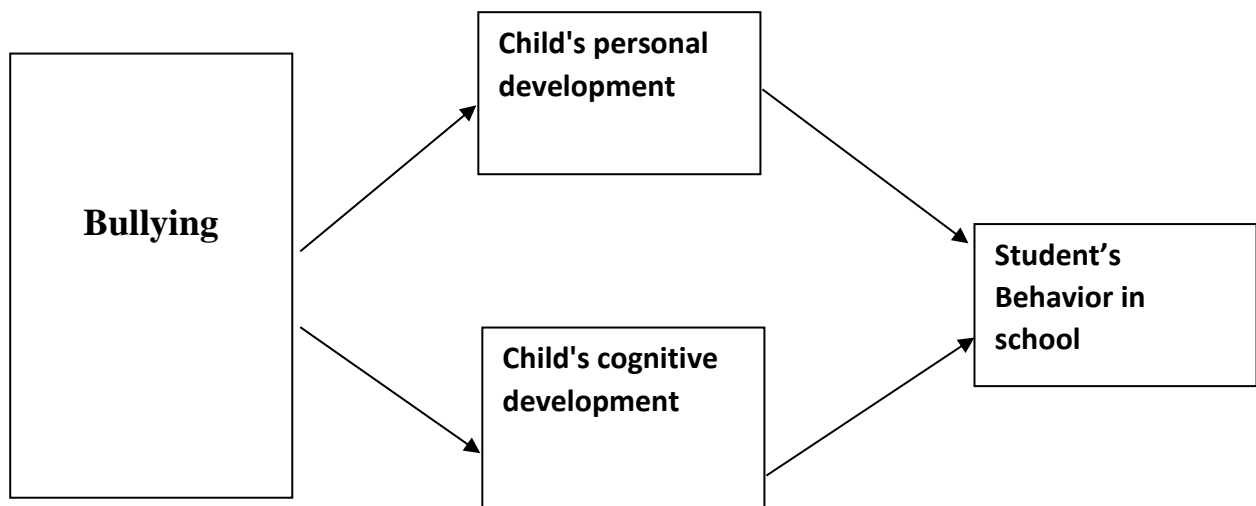


Figure (1) Research Model

### Research Hypothesis

Base on the previous literature following hypothesis are suggested:

**H<sub>1</sub>**: There is a positive relationship between Bullying and Child's personal development.

**H<sub>2</sub>**: There is a positive relationship between Bullying and Child's cognitive development.

### Research tools and participants

We will conduct the study in one of the villages in the Kingdom of Saudi Arabia, where all schools in the municipality can be affected by bullying, directly or indirectly. The population of this study consists of learners from primary grades, and primary school teachers in the school.

The purpose of the sample is to allow researchers to conduct a study using members of the population, to gather reliable results, and ultimately to conclude the population as a whole. It is very similar to the process of give and takes. The population "gives" the sample, and then "takes" conclusions from the results obtained from the sample (Strydom 2011).

Purposeful sampling, a type of non-probability sampling, will be used to select learners who have experienced being bullied. Learners (victims of bullying) who participated in the study were selected with the help of teachers who supervise disciplinary issues in the school, implying that learners and teachers were selected.

Teachers who manage disciplinary issues in the school with contact with child welfare social workers will also be selected to assist victims of school violence and to help support learners with severe behavioral problems. Thus, the sample for this study can be collected from 50 learners, 5 teachers, and 5 childcare social workers.

The inclusion criteria that were used to select participants stated that they should be aware of bullying and be fully able to express their feelings and experiences.

**Data collection:**

Data collection is an important aspect of research. Data were collected through semi-structured interviews. Semi-structured interviews allow for depth by providing the opportunity on the part of the interviewer to investigate and extend the responses of the interviewees.

As the previous point illustrates, semi-structured interviews have the advantage of enabling researchers to elicit rich detailed responses from participants through open-ended questions and allowing participants to express their opinions more freely than would otherwise be possible in structured interviews (Denzin and Lincoln 2012).

Punch (2013) further demonstrates that information obtained through semi-structured interviews is comparable, in which all participants are asked to express their feelings and experiences on the same general topics. Objective analysis as described by Robin and Robin (2012) was used to analyze the interviews. The process involved reading the interview transcripts after transcribing the recordings and encoding the descriptive concepts.

**Data Analysis:**

The researcher will analyze the data objectively by organizing the individual concepts into categories that share similar concepts. This was achieved by reading the various interviews and identifying individual ideas that share the same meaning and by using quotes from the participants to underline the selected themes. These concepts were grouped into topics that were expressed based on the concepts that emerged from the interviews.

**Research Ethics:**

1. Honesty, whereby data, results, methods, procedures, and status of publication are reported truthfully and not manufactured, falsified, or misrepresented.
2. Objectivity, as we are going to avoid bias in the methodology of this study and rely entirely on objectivity.
3. Realism and openness, as we share and evaluate a wide range of tools and data. Criticism of data or paths that have been relied upon is accepted.
4. Respecting intellectual property, as we refer through this study to patents and copyrights made by other researchers without resorting to plagiarism directly. Various data, methods or studies are quoted directly with reference to the author or researcher.

**4. Findings and Discussions**

This section aims to analyze the data collected as a descriptive analysis and as a deductive analysis. It highlights findings of the research. In this part of analysis, we give a brief description of the study participants based on their different characteristics.

**Table (1) The demographic characteristics of the study sample**

variable	Variable classes	frequency	Percentage%
age (years)	25 - 35	26	23.6
	36 - 50	70	63.6
	above	14	12.7
<b>Total</b>		<b>110</b>	<b>100.0</b>
Whom does the student live with	father	31	28.2
	mother	65	59.1
	with the father only	6	5.5
	with the mother only	00	00
	with others	8	7.3
<b>Total</b>		<b>110</b>	<b>100.0</b>
Current Job	school principal	83	75.5
	teacher	18	16.4
	educational supervisor	9	8.2

variable	Variable classes	frequency	Percentage%
Total		110	100.0
Numbers of years of experience	less than 5 years	18	16.4
	less than 5 to 10 years	37	33.6
	10 years and more	55	50.0
Total		110	100.0
Academic qualification	Educational	108	98.2
	Non-educational	2	1.8
Total		110	100.0
Training courses	There is	86	78.2
	There is no	24	21.8
Total		110	100.0

Table No. (1) shows the distribution of participants by age. The majority of participants are 36 - 50years (63.3%). 59.1% of the participants are live with mother. 75.5% of the respondents were school principal , also 50% of the respondents have 10 years and more years of experience, 98.2% were educational and 78.2% of the respondents have a Training courses.

**Table (2) Descriptive statistics for the study variables**

Clause	Mean	Std. Deviation	Level order
bullying	3.6344	.93059	high
Child's personal development	3.7642	.68783	high
Child's cognitive development	3.2745	.93148	high

Based on Table 2 above 110 valid answers' mean and standard deviation for each variable were analyzed. The results were derived from the highest mean score of the variable of the Bullying. based on the participant's answers. Also, the findings show the Bullying in the Kingdom of Saudi Arabia. It seems that there is no low and moderate level of mean scores, this indicates that all the reasons have a positive impact on Child's personal development and Child's cognitive development

- **First Hypothesis**

**H<sub>1</sub>**: There is a positive relationship between Bullying and Child's personal development.

**Table (3) Model Summary of Bullying and Child's personal development.**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.449 <sup>a</sup>	.202	.197	.898

The modified R square value is 0.202, as seen in the table above. This may be regarded as how much of the variance or change in Child's personal development. can be attributed to Bullying. As a result, if we translate this statistic into a percentage, we can explain 28.2% of the overall variation in Bullying. To put this result into context, the remaining 74.8% is explained by variables other than Bullying that are not included in our model.

**Table (4) ANOVA of Bullying and Child's personal development**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	30.440	1	30.440	37.714	.000c
Residual	120.262	149	.807		
Total	150.702	150			

As seen in the table above, the significant threshold is 0.000 with a F statistic of 37.714. As a result, there is a statistically significant link between Bullying and Child's personal development. This shows that the model using Bullying as the predictor or independent variable and Child's personal development as the dependent variable is significant.

**Table (5) Coefficients of Bullying and Child's personal development**

	B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	1.148	.296		3.883	.000

	B	Std. Error	Standardized Coefficients Beta	t	Sig.
Attitude towards behaviour	.484	.079	.449	6.141	.000

The values to create the model equation expressing the link between the two variables under investigation may be derived from the preceding table. From this we conclude, 1.695 is the constant ( $\beta_0$ ), 0.484 is the slope ( $\beta_1$ ), where this beta value is significant at 0.05 (as shown in the table, the significance value is 0.000 which is less than 0.05). Based on the results of the previous table, the typical equation for Bullying and Child's personal development. It can be written as, Child's personal development = 1.695 + 0.499 (Child's personal development) + e. Slope (1) indicates that if Bullying increases by one unit Child's personal development will be raised by 0.499 units. As demonstrated by the positive slope (positive coefficient) of the equation above and the significance level, this link is significant and positive, and so the H1 hypothesis of the study may be accepted.

- **Second Hypothesis**

**H<sub>2</sub>:** There is a positive relationship between Bullying and Child's cognitive development.

**Table (6) Model Summary of Bullying and Child's cognitive development.**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.466 <sup>b</sup>	.217	.206	.893

The corrected R square value is .217, as seen in the table above. This score may be viewed as how much of the variance or change in **Child's cognitive development**. can be attributed to Bullying. As a result, when this figure is converted into a percentage, Child's cognitive development for 14.7% of the overall variance in Bullying. To put this figure into context, the remaining 81.3% is explained by variables other than Bullying that are not included in this model.

**Table (7) ANOVA of Bullying and Child's cognitive development.**

	Sum of Squares	df	Mean Square	F	Sig.
Regression	32.690	2	16.345	20.499	.000 <sup>c</sup>
Residual	118.012	148	.797		
Total	150.702	150			

As seen in the table above, the significant threshold is 0.000 with a F statistic of 20.499. As a result, there is a statistically significant association between Bullying and Child's cognitive development. This suggests that the model with Absence of Bullying or independent variable and Child's cognitive development as the overall variable is significant.

**Table (8) Coefficients of Bullying and Child's cognitive development.**

	B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	0.678	0.406		1.670	.003
Perceived behavioural	0.265	0.158	0.182	1.680	.005

The values for developing the model equation expressing the link between the two variables under investigation can be derived from the preceding table. Accordingly, 0.678 is the constant ( $\beta_0$ ), and 0.265 is the slope ( $\beta_1$ ), for which this beta value is significant at 0.05 (as shown in the table, the significance value is 0.005 which is lower than 0.05). We conclude from these figures in the above table, the typical equation for Bullying and Child's cognitive development. Can be created as, Bullying = 0.678 + 0.265 (deficiency) + e. Slope (1) indicates that if the inefficiencies increase by 1 unit, Child's cognitive development will increase by 0.182 units. As proven by the negative slope (positive coefficient) of the above equation and the level of significance, it can be said that this relationship is a significant positive relationship, and therefore the H2 hypothesis can be accepted in the study.

## 5. Discussions of the results

The results of numerous studies by other researchers, including Roman and Murillo, found that elementary school students who engaged in bullying behavior—as both victims and perpetrators—in school significantly underperformed those who did not. This was especially evident in their acquisition of reading achievement and math scores (Román, 2011). According to a different Ladd study, adolescents who experience intimidation for the majority of their time in primary school run a considerable chance of receiving poor academic results. When the bullying stops, Ladd's research demonstrates the difference between children who are victims for only

the first year or for a little period of time and those who see an improvement in their self-esteem, academic achievement, and attitude toward school (Ladd et al., 2017).

According to numerous studies, bullying causes changes in brain structure that impair cognitive and academic performance. Bullying has been linked to a decrease in caudate and putamen brain volume, according to recent studies. The caudate is crucial for processing memories and learning new information. This area of the brain makes judgments and affects actions in the future by using knowledge from past experiences. The putamen controls how well body motions are coordinated and has an impact on thought. The caudate and putamen can change in older people who have undergone varied pressures in their lives. The connection between peer bullying and high levels of anxiety at a young age is explained by physical changes in the brain of bullying victims at a young age. This research is the first study to demonstrate how persistent bullying that begins at a young age can have an impact on adolescent neurologists by altering their brain morphology (Quinlan et al., 2018).

In addition to the caudate and putamen, the study discovered that the group of bullying victims had less gray matter in a number of regions, including the medial orbitofrontal cerebral cortex, both middle temporal lobes, and both supra-marginal gyri. A higher cognitive function, which includes motivation and decision-making, is centered in the cerebral cortex. The most active part of the brain is the gray matter, which contains the neuron cell bodies. Gray matter controls every aspect of cognitive coordination, perception, and personality. The extent to which the gray matter is covered can reveal whether or not bullying-related self-control is present (Kelly et al, 2018).

In the medial, lateral prefrontal, and temporal lobes, bullying was linked to a reduction in cortical thickness, according to other studies. It is hypothesized that diminished middle temporal gyrus thickness will modulate symptoms of generalized anxiety disorder. It is also projected that the thinner parahippocampal gyrus on the left and right will buffer the link between childhood bullying behavior and signs of antisocial conduct in adolescents (Busso et al, 2017). Many scientists have been examining the long-term effects of bullying stress on brain development. Neurological stress hormones are required by the organism in numerous ways. The body need stress chemicals like cortisol to work better, enhance memory and cognitive function, improve heart health, and even strengthen the immune system. Stress starts to affect the body when it transforms from a transient buzz to persistent chronic stress (Chen et al, 2017).

### **5.1. Conclusion**

This research aims to identify “the psychological impact of bullying on children’s personalities and cognitive development,” a case study of Saudi children. The study chose a set of variables (two dependent variables and one independent variable). The dependent variables are Child's personal development and Child's cognitive development. And to know its effect on the independent variable (bullying). The sample consisted of (110) individuals from the Kingdom of Saudi Arabia. The model used by the study was interviews as a tool for collecting data related to the study. The Google Docs tool was used to create the questionnaire. The questionnaire is distributed to a large number of people via emails on social media, WhatsApp, Twitter, and Facebook in both Arabic and English. The study discovered a link between bullying children's personalities and cognitive development

### **5.2. Implications:**

The results of this study are likely to help students, practitioners, academics, and psychologists. In practical terms, the results can help support the discovery of the impact of bullying on students’ psychological development, identify potential weaknesses so that corrective steps can be taken to proactively identify the quality identified, and predict the specifications of performance goals already before initiatives begin. In higher education, the study provided some additional ideas and reflections on various research related to the research topic, and has the potential to be used in creating or reformulating the topic and curriculum for academic activities.

### **5.3. Limitations:**

Many limitations were discovered when doing this study. For starters, the researcher was unable to locate sufficient literature on the subject issue. Second, contradictory perspectives and prejudiced personal concerns may encourage the research sample to pick only outcomes and facts that support their key claims. Furthermore, the difficulty of accessing all specialists at this time forces me to conduct the survey electronically, and while time constraints can have a negative impact on the research, we must



acknowledge and mention the need for future research to solve the main problem. I encountered difficulties in the interviews, which added time to the process. In reaction to the research sample's lack of response.

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