

The connection between parenting style and the achievements in mathematics and discipline of high school students from the Arab society

Yousef Methkal Abd Algani^{1*}, Younis Fareed Abu Alhaija^{2*}, Wafiq Hibi^{3*}

* The authors made equal contributions

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Abstract

The present study examines the relationship between the four main parenting styles and students' achievement and discipline. The four examined parenting styles are: authoritarian, resolute, lenient and indifferent. The main research question: Is there any relationship between parenting style and student achievement in mathematics and discipline at school? The study focused on high school students from Arab society. Questionnaires regarding parenting style were given to 50 parents from three high schools, a private one and two governmental. Subsequently, achievement and discipline questionnaires were given to teachers working in the same schools. The study's findings revealed a positive relationship between the resolute parenting style and the students' achievements in mathematics and a positive relationship between the resolute parenting style and the student's discipline. Besides, the study revealed a positive relationship between authoritarian parenting style and student achievement in mathematics and a positive relationship between resolute parenting style and student discipline. The study also revealed a negative relationship between the lenient parenting style and student achievement in mathematics and a negative relationship between the lenient parenting style and student discipline. Furthermore, the findings show a negative relationship between indifferent parenting style and student achievement in mathematics; and a negative relationship between indifferent parenting style and student discipline. Hence, the main research conclusion is that the resolute parenting style is the best and most influential of the four parenting styles. Students who are raised according to this style have the best achievements in mathematics and discipline. In contrast, the findings show that the indifferent parenting style is the worst because of the negative relationship and student achievement in mathematics and the field.

Keywords: parenting style; Academic achievement in mathematics; Student discipline; High School Students; Arab society.

Introduction

Parenting style can set goals and boundaries for children, besides giving mental, emotional and financial support. The combination of support and goal setting lead children to future success (Inam, Nomaan & Abiodullah, 2016). This study focuses on the relationship between parenting styles and their impact on student achievement in mathematics and school discipline. This issue is considered necessary because it can raise people's awareness about how they should educate their children. It sheds light on the importance of supervising children and the significance of intervention and provides the appropriate response to the child's life. The research literature emphasizes that parenting style has a very high impact on the child's future and success at school and in life, in general. resolute parents who get involved in their children's lives, give them the needed support and encouragement are parents who will most likely see their children succeed in the future. *resolute* parents give their children autonomy since being young, so they develop early and become more successful in the future. Parents who punish their children for every mistake they make are supervising parents, yet these acts may come back to haunt those parents. Beyond the other, some parents give their children everything they ask for but do not supervise them. At the same time, some parents are not involved in their children's educational process (Inam, Nomaan & Abiodullah, 2016). Hence, the present study aims to examine how parenting style affects student achievement in mathematics at school and their discipline. Therefore, the main research

¹ Department of Mathematics, Sakhnin College, Israel.

Department of Mathematics, The Arab Academic college for education in Israel
yosefabdalgani@gmail.com, <https://orcid.org/0000-0003-2801-5880>.

² Department of Education, Sakhnin College, Israel. aboelhi5@gmail.com, <https://orcid.org/0000-0003-1307-7712>

³ Department of Mathematics, Sakhnin College, Israel. wafiqhibi@gmail.com.

question is: Is there any connection between parenting style and student achievement in mathematics and field in the Arab society?

2.Literature Review

2.1 Parenting style

Parenting style is a psychological structure representing the standards and strategies parents set and use to raise their children. The quality of raising children can be vital and much more important than the number of time parents spend with their children. For example, parents can spend the whole afternoon with their children, but at the same time, they can be involved in other different activities like browsing on their smartphones; consequently, they will not show enough care towards their children. Hence, it can be said that parenting style is how parents respond to their children's needs and how they ask them to do things. Today, many studies deal with parenting styles and theories that describe the best parenting style for raising children (Huang & Gove, 2015). Children go through a lot of different stages during their life. Therefore, parents have to create a parenting style considering several factors that develop over time, with the development of children's personalities. During infancy, parents try to adjust to a new lifestyle after the birth of their baby. Psychologists differentiate between the relationship between parents towards children and the relationship between children towards parents. Children's relationship with their parents is related to dependence and affinity, while parents' relationship with their children is called connection. During infancy and early childhood, parents must determine a particular parenting style according to which they will raise their baby. In adolescence, parents have to make changes in their parenting style because they need new adjustments to their child's unique personality, which will require much more freedom. Parents always face such challenges throughout raising their children (Kuppens & Ceulemans, 2019). The child's mood and the parents' culture have a high impact on the parenting style that the child can accept. Likewise, adherence to education plays a large part in the subject. Previous studies on parenting and child's development have shown that parents who provide their children with proper independence, control and nurturing raise children who exhibit a higher social ability level. Showing the children love in addition to caring and affection encourage both the child physically and mentally. During the 1980s, researchers understood how different parenting styles affect a child's development during life (Kuppens & Ceulemans, 2019).

2.2 Theories of child-rearing

Previously written child-rearing theories are the source, or the basis, for the parenting-style theories that this paper discusses. This section presents a small portion of the most common and dominant theories that have historically been related to the topic of child-rearing and from which parenting styles were subsequently derived. In the early 17th century, two philosophers wrote two different books which specifically deal with raising children. John Locke's book "*Some Thoughts Concerning Education*", written in 1693, is a significant starting point in the pedagogical field. In his book, Locke emphasizes the importance of experience for the child's development. Locke recommends that the child develops physical habits first. In 1762, the philosopher Jean-Jacques Rousseau published a book on education entitled: "Emile, or on Education."

In his book, Rousseau suggested that the education a child should receive should be much less related to books and more dependent on the child's interaction with the world around him. Hence, it can be seen that both philosophers have two different approaches to raising children. While John Locke pays more attention to the children's physical ability and skills, Jean-Jacques Rousseau is more concerned with the slow-paced parenting style. Russo prefers the child to understand his environment at his own pace without parental pressure (Masud, Thurasamy & Ahmad, 2015). A theory close to Piaget's theory is that of Eric Erickson. According to the theory, the child develops in eight stages during life. To move on to the next level, the child must go through the previous level.

Moving from stage to stage is done by solving a problem related to the stage in which the child exists. According to the theory, the child has to face a crisis related to the stage he is in, solve the problem, and then progress to the next stage of development. Hence, parents' role is to choose a parenting style that will expose their children to as many dilemmas as possible that will help children develop their abilities at the stage they are at (Chen, 2015). According to Frank Furedi's theory, parents' actions are less influential on the children than the people think. According to his theory, governments always try to guide parents to raise their children. They make parents care about their children and look for specific practical ways to increase them. But in fact, children have the desire and ability to succeed in any situation. According to Furedi, development is a natural thing that will happen during life. Parental intervention can sometimes delay children's development, mainly if parents constantly intervene in anything related to their children (Chen, 2015). Another critical theory on raising children is Jean Piaget's "The theory of cognitive

development". This theory describes how children interpret the world around them. According to Piaget, children think differently from adults. According to the theory, at each stage of life, the children think differently, and the children's cognitive thinking develops according to their age. This theory has contributed much to the field of child-rearing and continues to this day to influence parents and teachers (Gralewski & Jankowska, 2020).

2.3 Baumrind's parenting typology

According to Sarwar (2016), Diana Baumrind is a researcher who has dealt with classifying parenting styles. Her research is known as Baumrind's Parenting Typology. In her research, she examined the difference between the way parents raise their children in the context of the following:

1. Reactive versus non-reactive parents
2. Demanding parents versus non-demanding parents

Parental responsiveness refers to learning in which parents respond to their children's needs in a supportive and accepting way. Demandingness relates to the rules that parents set for their children's behaviour, their children's expectations to obey the rules and the level of punishment expected if the children break the rules (Sarwar, 2016). Hence, Baumrind has identified three central and dominant parenting styles that most parents adopt and raise children according to:

1. resolute parenting style
2. Authoritarian parenting style
3. lenient parenting style

Baumrind believed that parents should not punish, but they should not also be lenient. Instead, they should set rules for their children that should not be broken, but at the same time, they should show their children their love. The researcher adds that parents' stress can affect parenting style in that the style will not be stable enough and consequently results in poor communication with the children. Stress can lead to less supervision, setting incomprehensible rules or, in some cases, failure in developing regulations. Besides, stress can cause parents to be responsive instead of being involved parents, i.e., parents who react after things have already happened, instead of being involved in everything related to their children's lives. Hence, parents should pay attention to the fact that stress is highly harmful to raising children. Therefore, they are required to keep their passive emotions away from their children as much as possible (Sarwar, 2016). After a more in-depth study of parenting styles, it was found that there is a fourth typical parenting style just like the other three parenting styles called: indifferent Parenting Style (Garcia & Serra, 2019).

2.4 Parenting Styles

2.4.1 Resolute parenting style

According to this parenting style, parents are both reactive and demanding. This parenting style is characterized by the fact that it puts the child at the centre, and thus the expectations from the child are very high, i.e., children should reach adulthood very quickly. Although this style positions high expectations from children, specifically in showing maturity, parents who raise their children according to this parenting style offer forgiveness when the child does not meet their expectations. Parents who raise their children according to this parenting style encourage their children to be independent, but they also set boundaries for their children's actions. Parents do not rule out negotiations with their children, and they try to be warm and caring (Kim et al., 2018). Parents who use this style are less controlling than parents who use the authoritarian style, giving their children more freedom. As a result, they allow their children to make their own decisions according to their judgment. Children raised according to this style are independent children who usually trust themselves. This style is born when the parents are reactive and demanding (Doinita & Maria, 2015). Parents who raise their children according to this parenting style expect mature and independent behaviour from their children. Punishment for misconduct is a stable punishment that matches the size of the offense the child committed. There is also consistency in the punishment so that the punishment is not arbitrary or violent. In many cases, parents have a conversation with their child and analyze the matter with him/her in a way that will allow him/her to see the mistake he has made. In some cases, it helps the child understand and change his/her behaviour. As a result of this parenting style, children tend to be more successful, loved by the people around them, more generous and able to make decisions independently (Radcliff et al., 2018).

2.4.2 Authoritarian parenting style

Under this parenting style, parents are demanding but unresponsive. Authoritarian parents are restrictive and severely punishing. Besides, parents make their children obey the rules they have set without explaining why these rules should be followed. This style puts the status of the family at the centre and not the children. Punishment such as shouting

and corporal punishment are the most common forms of punishment that characterize the authoritarian parenting style. This punishment aims to teach the child how to behave and how to grow up in a rude atmosphere after adulthood. Furthermore, this punishment prepares children for the negative reactions of society they might encounter in the future, such as anger and aggression (Jadon & Tripathi, 2017; Friendson, 2016).

Despite this, it cannot be argued that this parenting style is not successful worldwide. This parenting style is culture-dependent. In Asian and Eastern countries, this parenting style is successful, as seen in countries like China and Japan that raise their children according to the authoritarian parenting style. One explanation for this phenomenon is that parents and adults in these countries receive more respect than adults in Western countries (Rauf & Ahmed, 2017).

2.4.3 Lenient parenting style

According to this parenting style, parents are responsive but not demanding; they have no children's demands. This parenting style is characterized by parents being lenient. This style is also characterized by a lack of expectations from the child's behaviours. According to this style, parents are very involved with their children but do not set the goals or means of supervision. Parents accept their children and respond to their needs. Parents who raise their children following this style do not ask them to behave in a certain way. In adulthood, children being raised according to this parenting style will be inattentive to avoid behaviour that causes harm to others (Fuentes et al., 2015).

Parents who raise according to this parenting style try to be friends with their children and do not adequately fulfil the parent's role. Expectations from children are very low, and discipline is not shown in the children's behaviour. They also allow their children to make their own decisions without supervision. According to this parenting style, children are not punished. Some lenient parents try to give their children what they missed in childhood. The Baumerind's study conducted among those children showed that those children are undeveloped, uncontrollable and irresponsible (Checa & Abundis-Guiterrez, 2018). Children who have grown up in a lenient parenting style grow up to be more impulsive and are incapable of controlling their behaviour. (Odongo, Aloka & Raburu, 2016).

2.4.3 Indifferent parenting style

According to this parenting style, parents are not involved in everything that happens during their children's lives. They are disconnected from their children's reality. Parents are both unresponsive and unassuming. Parents who raise their children according to this parenting style do not know what is going on in their children's lives. They also do not spend time with their children and usually do not know where their child is most of the day (Garcia & Serra, 2019). Besides, parents of this type are unaware of what their children are doing; there are almost no rules for their children, and their children do not receive guidance from them, love or attention. Indifferent parents do not invest time and energy to meet their children's basic needs. It cannot be argued that indifferent parents are not involuntarily involved. Sometimes, parents do not have enough awareness about raising children, and parents are often involved in other serious problems like financial and other problems (Garcia & Serra, 2019).

2.5 Academic achievements in mathematics

In many cases, people limit student achievement in mathematics to their grades at school. While grades are an excellent assessment of student achievement in mathematics, there are plenty of other issues people need to consider regarding student achievement in mathematics. Besides grades, teachers judge their students' achievement according to the investment each student performs during the lessons and at home. It can be said that student achievement in mathematics consists of student's participation with the teacher during the study, adherence to homework and assignments, and the most significant percentage that reflects student achievement in mathematics are the grades (Muller, 2018). This is because other elements are involved in the teacher's evaluation, such as the students' different abilities. While some students do not make mistakes during tests, others make mistakes that cause grades to drop. These mistakes do not change the teacher's assessment of a particular student; this is because students work with their teachers during an extended school year, and grades are not the only factor teachers usually take to evaluate students (Muller, 2018).

2.6 The relationship between parenting style and student achievement in mathematics

While elements such as maternal and paternal education, parental employment, and parental socioeconomic status have been explored as elements that affect children's achievement, there is another element of great significance that affects children's achievement. This element is, of course, parenting style (Inam, Nomaan & Abiodullah, 2016). When examining the resolute parenting style, it can be seen that most researchers rank this style at the top of the scale of types. According to the researchers, this parenting style is the best for raising children because there is a certain balance

between parents' demands from their children and parents' responsiveness to their children's needs (Inam, Nomaan & Abiodullah, 2016).

Many studies that have examined the impact of parenting styles on children's achievement, comparing parenting styles and knowing which of them have the most significant positive impact on student achievement in mathematics, have found that resolute parenting style is the most successful. The reference here is not limited to achievement in grades; students who grow up in an resolute parenting style are more proficient and happy children. These children have great self-confidence, which makes them believe that they can face new challenges and overcome them. They are also highly aware that disappointments can happen from time to time when they are not trying significantly. According to these findings, these students blame themselves and the effort they put in when they fail at school or encounter a particular obstacle. They also place more excellent value on success when they achieve it (Pinquart, 2016).

While children who grew up in an authoritarian environment are children whose academic condition is not harmful and can be equally successful, the vast majority claim those children do the work out of fear of the punishment that awaits them at home. These children's motivation is not derived from their desire to learn and know more but from their parents' desire to succeed. These children are often insecure, stressed quickly and showed high anxiety when encountering situations that are difficult to overcome (Cenk & Demir, 2016).

The students who grew up in an atmosphere of lenient are less successful children. These children are mainly dependent on their teachers at school. They do not do homework, do not attend class and do not show a high desire to learn, but they expect their teachers to push them towards success for no justifiable reason. Those students, along with the children raised by indifferent parents, are the least successful (Cenk & Demir, 2016).

2.7 Discipline and Behavior at School

Just as parenting style affects student achievement in mathematics at school, it does the same with student's behaviour. Children who grow up in an resolute parenting style are children with a better ability to interact. They are sociable with their peers and with their teachers; they can have conversations and play games with their friends in the schoolyard (Ugurlu & et al., 2015).

They equally respect their teachers, show no impudence and generally exhibit far fewer discipline issues than children who grow up under a different parenting style. Children of parents who grow up in an authoritarian parenting style can also show great respect for the teacher, just as they show great respect to their parents. Those children obey their parents without the parents explaining; it can also happen at school. But what can happen at school with these children is that they come to school to release and express their energies that result from the massive pressure that their parents put on them. Hence, although those students are usually good students with fewer discipline issues, they are more problematic than children who grow up in an resolute parenting style (Ugurlu & et al., 2015).

Children who grow up in a lenient parenting style are children with a discipline problem. These kids think there are no boundaries in life; no limits at home mean no school boundaries. They are not used to obeying rules; they believe they can do and get what they want. Those children often encounter serious discipline problems. Children who grow up without parental involvement have the worst record when it comes to discipline issues. Those children are trying to draw attention from their environment in the most wrong ways. They adopt the stigma that children who are not academically good are children with discipline problems. So, it can be seen that those children exhibit the most disciplinary issues within the school (Ugurlu & et al., 2015).

2.8 Purpose of the study, research question and research hypotheses

The present study aims to examine the relationship between parenting styles, student achievement in mathematics and discipline in high schools in the Arab society to answer the main research question:

Is there a connection between parenting style, student achievement in mathematics, and the discipline of high school students from Arab society?

The hypotheses of the research

- There will be a connection between parenting styles, student achievement in mathematics and their discipline.
- There will be a connection between the components of parenting styles, students' achievements in mathematics and their field.

From the main hypotheses, the following sub-hypotheses are derived:

1. A positive relationship will be found between the resolute parenting style and student achievement in mathematics.
2. A positive relationship will be found between the resolute parenting style and student discipline.

3. A positive relationship will be found between the authoritarian parenting style and student achievement in mathematics.
4. A negative relationship will be located between authoritarian parenting style and student discipline.
5. A negative relationship will be found between the lenient parenting style and student achievement in mathematics.
6. A negative relationship will be found between the lenient parenting style and student discipline.
7. A negative relationship will be located between indifferent parenting style and student achievement in mathematics.
8. A negative relationship will be situated between indifferent parenting style and student discipline.

3. Methodology

3.1 The research method

The study examines the relationship between parenting styles, student achievement in mathematics and school discipline. Examining the relationship among the three variables necessitates carrying out the quantitative method. The three concepts, parenting style, student achievement in mathematics, and student discipline, defined in the literature review, constitute the three research variables to be examined.

3.2 Study population

The study population consists of parents of students from Arab high schools in Israel. A total of 300 questionnaires were administered. One hundred fifty of them were given to parents. Besides, 50 questionnaires were handed out to teachers who teach in those schools. Parents and teachers were selected from the same schools to answer questions related to those students. Thus there would be no biases in the study findings. To diversify the study participants, both mothers, fathers, male and female teachers responded to the survey.

3.3 Research tools

The study uses questionnaires to examine parents and teachers' responses concerning the study population. To elaborate, parents got the parenting style questionnaire. A parenting style questionnaire is a questionnaire that asks questions about the way parents raise their children. The purpose of this questionnaire is to differentiate between parenting styles Arab parents adopt to raise their children. Parents were asked to respond to 10 statements.

Besides, a questionnaire of student achievement in mathematics and discipline was also handed out to the students' teachers whose parents participated in the study. The questionnaire included ten additional statements. The questionnaire asks questions about the students' behaviours in class and within the school building. Besides, it asks questions about students' achievements in mathematics, participation and cooperation with their teachers.

3.4 Research variables

3.4.1 Dependent variables:

3.4.1.1 Student achievement in mathematics in mathematics

Student achievement in mathematics is divided into two parts: academic achievements in mathematics that relate to student grades, and cultural achievements in mathematics that relate to students' involvement in class, their participation, courtesy and respect they show towards their teachers. Therefore, both constitute the research two variables that examine student achievement in mathematics.

These two variables are ordinal scale variables, which rate student achievement in mathematics from 1 to 6, where value 1 means "it is not good at all", while value 6 means "excellent".

3.4.1.2 Student discipline

Student discipline is divided into two variables as well. The first variable is students' behaviour in class, whereas the second is the students' behaviour in the schoolyard. These two variables are listed on a scale, according to which the teacher is asked to rate student discipline from 1 to 6. Accordingly, value 1 means that "students exhibit discipline problems and their discipline is not good at all", while value 6 indicates "excellent discipline".

3.4.1 Independent variables

3.4.1.1 Resolute parenting style

The variable is a dummy variable. The variable answers the question of whether the parenting style is resolute or not. Value 1 means that the parenting style is resolute, while value 0 means that the parenting style is not resolute.

3.4.1.2 Authoritarian parenting style

This variable is also a dummy variable. The variable answers the question of whether or not parenting style is authoritarian parenting style. Value 1 means that the parenting style is authoritarian, while value 0 means that the parenting style is not authoritarian.

3.4.1.3 Lenient parenting style

The variable is a dummy variable. The variable answers the question of whether or not parenting style is lenient parenting style. The value 1 means that the parenting style is lenient, while the value 0 means that the parenting style is not lenient.

3.4.1.4 indifferent parenting style

This variable is a dummy variable that checks whether the parenting style is an indifferent style or not. The value 1 means that the parenting style is indifferent, while the value 0 indicates that this style is not an indifferent style. This variable was constructed from the parents' agreement or disagreement with the statement "the parents are not responsible for supervising children".

4. Finding

After collecting the data, the data was fed into the SPSS software to analyze and display them. This chapter is divided into two parts. The first part is a descriptive part in which the research participants' demographic variables and their answers are presented. In contrast, the second part presents the research findings and the relationship between the variables.

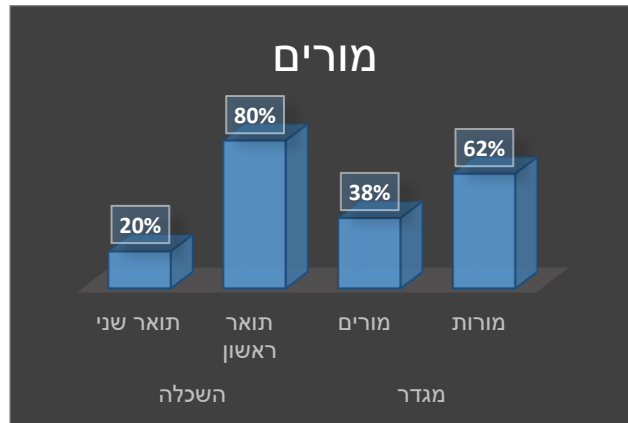
4.1 Descriptive statistics

Table 1: Description of the study population

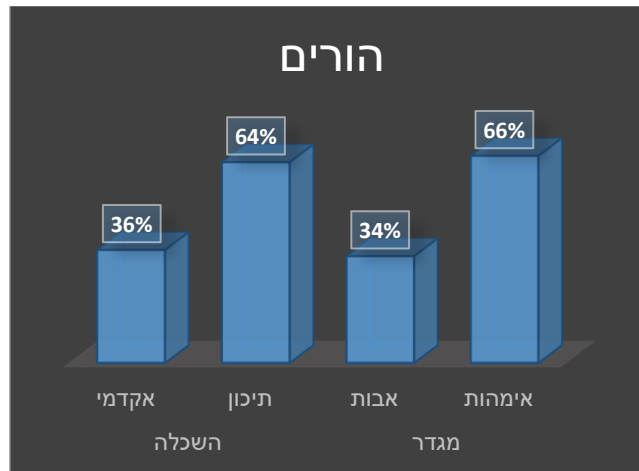
	Teachers	Parents
Gender	Female: 62% Male: 38%	Mothers: 66% Fathers: 34%
Education	B.A: 80% M.A: 20%	High-school: 64% B.A & more: 36%
Age means	35.84	45.18
Standard deviation	(8.2)	(5.39)
No' of participants	50	150

Table 1 shows that 62% of the study participants were women, and 38% were teachers. Only 20% of the teachers a master’s degree. The average age of the teachers participating in the study was 35.84 years. 66% of the parents who participated in the study were mothers. It can also be seen that most parents do not have a higher education, with 64% of them having a high school education and below. Only 36% of the parents had a bachelor’s degree or a higher one. The parents' average age was 45.18 years, as shown in graph (2) and 35.84 for teachers as shown in diagram (1).

Graph (1): distribution of the research sample according to teacher



Graph (2): distribution of the research sample according to parents



From these data, it can be concluded that most of those involved and interested in the education system are women; this is because most of those who agreed to participate in the study were women. It can also be seen that the parents' education figures are low.

Table 2: Distribution of research variables by parenting style

Variable	Resolute Means	Authoritarian Means	lenient Means	Indifferent Means
Means	5.66	5.53	3	1.76
Standard deviation	(0.49)	(0.51)	(1.34)	(0.92)
Academic achievement				

Cultural achievements in mathematics	(0.45) 5.75	(1.45) 4.53	(1.31) 3.5	(0.65) 1.61
Classroom discipline	(0.65) 5.66	(0.89) 4.84	(0.99) 2.91	(1.18) 2.07
Discipline in the school yard	(0.77) 5.33	(0.94) 4.3	(1.12) 3	(0.86) 1.61
Number of participants	(24%) 36	(26%) 39	(24%) 36	(26%) 39

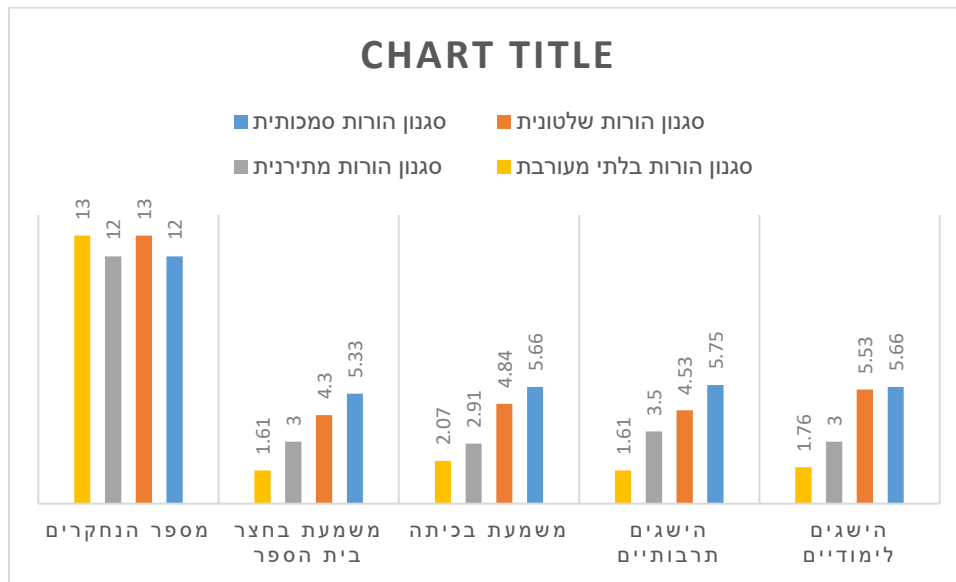
Table 2 shows that students' achievements in mathematics whose parents educated them according to an resolute parenting style are much higher than those whose parents educated them according to other parenting styles. These results are accurate both for academic achievement as well as for cultural achievement. Moreover, the table shows that the average student's academic achievements in mathematics whose parents educate them according to an resolute parenting style stand at 5.66; this average is very close to excellence. The standard of mathematics achievements of students whose parents educate them according to an authoritarian parenting style is 5.53. This average ranges from 'good' to 'very good, and is much higher than the averages of children whose parents educated them using the lenient style or indifferent one, with standards in both types that stand at 3 and 1.76 respectively.

In the context of cultural achievement, it can also be seen that children whose parents educated them according to an resolute parenting style had the highest average, with 5.75. In contrast, the standard of the children whose parents educated them according to the authoritarian style was 4.53, which ranges from 'good' to 'very good'. The average of students whose parents educated them according to the lenient style and the indifferent parenting style was 3.5 and 1.61, respectively. These averages range from 'not good at all to 'not good'. So when looking at student achievement in mathematics in general, it can be noted that: students whose parents educated them, according to an resolute parenting style have the best achievements in mathematics, then children who are educated according to the authoritarian style, then those whose who were educated following the lenient manner. In the end, lies students whose parents were not involved in their educational process.

The table also shows that the discipline average of students educated according to an resolute parenting style was the highest concerning two aspects, discipline within the classroom and field in the schoolyard. Moreover, the table shows that the average class discipline among these students is 5.68, an average close to excellence. In contrast, the average among students whose parents educate them according to authoritarian style was 4.84 - between 'good' and 'very good'. This average was higher than the average of students whose parents educated them according to the lenient style and the indifferent, which stood at 2.91 and 2.07, respectively. These averages range from 'not good at all to 'not good'.

The table also tells the readers that the average of discipline in the schoolyard among students whose parents educated them according to an resolute parenting style is 5.33. This average is considered the highest among the rest and lies between 'very good and 'excellent. After that comes the average of students whose parents educated them according to the authoritarian style, which stands at 4.3; an average that is also considered very high but is slightly lower than that of children educated according to the resolute style. At the bottom, there exists the lenient style along with the indifferent parenting style. The average of the lenient parenting style stands at 3. This average is found between 'bad' behaviour and 'reasonable' behaviour in the schoolyard. This happens when the average of students whose parents are not involved in the educational process is 1.61. When looking at students' discipline, in general, it can be seen that students who are educated according to an resolute style are the students with the best field, followed by students whose parents are authoritarian. At the bottom, unsurprisingly, are students whose parents are not involved in the educational process, as shown in graph 3:

Graph 3: Summary of the averages of the research variables according to parenting styles



4.2 Inferred Statistics

Table 3: Logistic regression model for predicting the relationship between resolute parenting style and student achievement in mathematics and discipline.

List of variables	First model	
	resolute parenting style	
	B (S.E.)	Exp(b)
Academic achievement	0.41 (0.2)	**2.66
Cultural achievement	0.27 (0.19)	**1.75
Discipline in class	0.06 (0.2)	*1.87
Discipline in school yard	0.11 (0.08)	***2.12
Fixed		-4.34
-2 log likelihood		50.04
N		150

Level of significance: p < 0.05* p < 0.01** p < 0.001*** L

Table 3 presents findings regarding the relationship between resolute parenting style and student achievement in mathematics and discipline. The association was examined by analyzing the results of the logistic regression model. The two research hypotheses tested in this model are:

1. There is a positive relationship between the resolute parenting style and student achievement in mathematics.
2. There is a positive relationship between the resolute parenting style and students discipline.

The table shows a significant positive relationship between the resolute parenting style and the children's academic achievements in mathematics. In other words, parents who raise their children according to the resolute parenting style increases the chance that their children's achievements in mathematics will be good at 2.66 (wald = 6.28, p < 0.01).

Also, the table indicates a significant positive relationship between the resolute parenting style and the students' cultural achievements in mathematics. Thus, parents raise their children according to the resolute parenting style increases the chance that their artistic achievements in mathematics will be good at 1.75 (wald = 7.09, p < 0.01).

Besides, the table also indicates a significant positive relationship between resolute parenting style and student discipline class. Parents who educate their children according to the resolute parenting style increase the likelihood that their discipline in class will be significantly better at 1.87 (wald = 8.1, $p < 0.05$).

In the end, a significant positive relationship was found between resolute parenting style and student discipline in the schoolyard. Thus, parents educate their children according to an resolute parenting style increases the probability in 2.12 that their behaviour in the schoolyard will be significantly better. (wald = 11.79, $p < 0.001$).

Table 4: Logistic regression model predicts the relationship between authoritarian parenting style and student achievement in mathematics and discipline.

List of variables	Second model	
	Authoritarian parenting style	
	B (S.E.)	Exp(b)
Academic achievement	**0.28 (0.16)	1.72
Cultural achievement	0.41 (0.12)	1.32
Discipline in class	**0.07 (0.11)	2.07
Discipline in school yard	*0.27 (0.12)	1.01
Fixed		0.87
-2 log likelihood		48.17
N		150

Level of significance: $p < 0.05^*$ $p < 0.01^{**}$ $p < 0.001^{***}$

Table 4 presents findings regarding the relationship between authoritarian parenting style and student achievement in mathematics and discipline. The association was examined by analyzing the results of the logistic regression model. The two research hypotheses tested in this model are:

1. There will be a positive relationship between the authoritarian parenting style and student achievement in mathematics.
2. There will be a negative relationship between the authoritarian parenting style and students' discipline.

The table shows a significant positive relationship between the authoritarian parenting style and its academic achievements in mathematics. Thus, parents who educate their children according to the authoritarian parenting style increase the probability by 1.32 that the students' academic achievement will be significantly good (wald = 2.86, $p < 0.01$).

The table also indicates an insignificant positive relationship between the authoritarian style and students' cultural achievements in mathematics. Thus, parents who educate their children according to the authoritarian style increases the chance in 1.52 that students' cultural achievements in mathematics will be exemplary (wald = 10.53, n.s).

The table also shows a significant positive relationship between authoritarian parenting style and student discipline in class. Thus, parents who educate their children according to the authoritarian parenting style increases the chance in 1.07 that students' discipline in class will be good. (wald = 0.36, $p < 0.01$).

In the end, the table also shows a significant positive relationship between authoritarian parenting style and student discipline in the schoolyard. Thus, parents who educate their children according to the authoritarian parenting style increases the chance that their discipline in the schoolyard will be good at 1.31. (wald = 4.99, $p < 0.05$).

Table 5: Logistic regression model for predicting the relationship between lenient parenting style and student achievement in mathematics and discipline.

List of variables	Third model	
	lenient parenting style	
	B	Exp(b)

	(S.E.)	
Academic achievement	*-0.24 (0.24)	1.28
Cultural achievement	*-0.41 (0.27)	1.51
Discipline in class	*-0.17 (0.21)	0.84
Discipline in school yard	*-0.19 (0.13)	0.82
Fixed		0.87
-2 log likelihood		44.06
N		150

Level of significance: $p < 0.05^*$ $p < 0.01^{**}$ $p < 0.001^{***}$

Table 5 presents findings regarding the relationship between lenient parenting style and student achievement in mathematics and discipline. The relationship was examined by analyzing the results of a logistic regression model. The two research hypotheses tested in this model are:

1. There will be a negative relationship between the lenient parenting style and student achievement in mathematics.
2. There will be a negative relationship between the lenient parenting style and students' discipline.

Table 5 shows a significant negative relationship between the lenient parenting style and the students' academic achievement. Thus, according to the lenient parenting style, parents who educate their children lowers the chance by 1.28 that the students' academic achievement will be good. (wald = 1.02, $p < 0.05$).

Table 5 also shows a significant negative relationship between lenient parenting style and the students' cultural achievements in mathematics. Thus, according to the lenient parenting style, parents who educate their children lowers the chance by 1.51 that the students' cultural achievements in mathematics will be good. (wald = 2.25, $p < 0.05$).

The table shows a significant negative relationship between the lenient parenting style and the discipline of students in class. According to the lenient parenting style, parents who educate their children lowers the chance at 0.84 that the students' field in the category will be good.

(wald = 0.65, $p < 0.05$).

Finally, the table shows a significant negative relationship between the lenient parenting style and students' discipline in the schoolyard. Thus, according to the lenient parenting style, parents who educate their children lowers the chance by 0.82 that the students' discipline in the schoolyard will be good. (wald = 1.91, $p < 0.05$).

Table 6: Logistic regression model for predicting the relationship between indifferent parenting style and students' achievement and discipline.

List of variables	Fourth model	
	lenient parenting style	
	B (S.E.)	Exp(b)
Academic achievement	*-1.38 (0.57)	0.24
Cultural achievement	*-1.14 (0.46)	0.31
Discipline in class	*-1.11 (0.52)	0.32
Discipline in school yard	*-1.07 (0.53)	0.34
Fixed		15.74
-2 log likelihood		29.25
N		150

Level of significance: $p < 0.05^*$ $p < 0.01^{**}$ $p < 0.001^{***}$

Table 6 presents findings regarding the relationship between indifferent parenting style and students' achievement and discipline. The relationship was examined by analyzing the results of a logistic regression model. The two research hypotheses tested in this model are:

1. There will be a negative relationship between the indifferent parenting style and students' achievement
2. There will be a negative relationship between the indifferent parenting style and students' discipline.

Table 6 shows a significant negative relationship between the indifferent parenting style and student achievement in mathematics. Parents who are not involved in their children's educational process lowers the chance by 3.24 that their children's academic achievement will be good. (wald = 5.79, $p < 0.05$).

Table 6 also shows a significant negative relationship between the indifferent style and students' cultural achievements in mathematics. So, parents who are not involved in their children's educational process lowers the chance at 4.31 that their students' cultural achievements in mathematics will be good. (wald = 6.16, $p < 0.05$).

Table 6 also indicates a significant negative relationship between the indifferent parenting style and student discipline in class. Thus, parents who are not involved in their children's educational process lowers the probability by 4.32 that their children's discipline in class will be good. (wald = 4.56, $p < 0.05$).

Finally, a significant negative relationship was found between the schoolyard's indifferent parenting style and student discipline. Thus, parents who are not involved in their children's educational process lowers the chance that their children's field in the schoolyard will be significantly better at 4.34, wald = 4.07, $p < 0.05$).

Discussion

The study examined the relationship between the four main parenting styles and student's achievement and discipline. The four parenting styles discussed are the resolute, the authoritarian, the lenient and the indifferent. Students' achievement was divided into academic achievement that constitutes student grades and cultural achievement such as respecting schedules and timetables, submitting homework and participating in class. Moreover, student's discipline was also divided into two parts, student behaviour in class and student's behaviour in the schoolyard. The study examined the relationship between each parenting style individually with student achievement in mathematics and discipline.

The first hypothesis tested was:

There will be a positive relationship between the resolute parenting style and students' achievement. The study's findings revealed a significant positive relationship between resolute parenting style and students cultural and educational achievement. These findings matched the first research hypothesis and what is found in the literature review. According to the literature review, this kind of education positions children at the centre; this is because the children's parents behave with their children to give the children self-confidence. Parents treat their children like adults, explaining to them every step and every decision made. In this way, parents maintain a good relationship with their children and make them feel that they have autonomy. Here, parents set high goals for their children and exercise control over their children's accomplishments. If they see that their children are having a hard time, they intervene. Here, parents maintain their children's independence and only intervene if necessary. Punishment, according to this style, is not required. If parents choose to punish their children, they explain to them the reason for the sentence. Parents who educate their children according to this parenting style are characterized by being both demanding and responsive. They demand from their children, and at the same time, they respond according to the child's behaviour (Doinita & Maria, 2015). From this, it can be concluded that this parenting style is the best of the other types. Findings show that children have the best achievements in mathematics.

The second hypothesis:

There will be a positive relationship between the resolute parenting style and students discipline.

In addition to the positive relationship between resolute parenting style and student achievement in mathematics, the study's findings show a positive and significant relationship between the resolute parenting style and student discipline, both in class and in the schoolyard. This finding is consistent with the research hypothesis and the literature review. According to the literature, parents who educate their children according to an resolute parenting style do not put pressure on their children; they give them their space and express themselves. Children have autonomy, but at the same time, there is a feeling that they are responsible for their actions. Hence, they choose to behave in a good way that is compatible with their responsibility. Parents avoid punishing their children as much as possible. Instead, they let them feel that it is their responsibility to behave well (Radcliff & et al., 2018). Punishment gives children a feeling of lack of autonomy. Therefore, I see that parents should avoid the penalty as much as possible. When children feel autonomous, they take on the responsibility of not being intrusive children. Moreover, having conversations with the

children and explaining why their behaviour was not good is better than punishing them without knowing why they are being punished.

The third hypothesis:

There will be a positive relationship between the authoritarian parenting style and student achievement in mathematics findings. It also shows a positive relationship between the authoritarian style and student achievement in mathematics. This finding is partially consistent with the third research hypothesis. This is because there was a significant relationship between this parenting style and only academic achievement. Still, there was not a meaningful relationship between the authoritarian style and the cultural achievement. According to the literature, parents who educate their children according to this parenting style set high school goals. In addition to the high goals, they also exercise slave supervision over their children. Parents barely give their children space and autonomy, and they control their children by issuing commands and instructions (Jadon & Tripathi, 2017).

What is written in the literature explains the children's academic achievements in mathematics. Studying the cultural achievements in mathematics, the literature suggests that children educated according to this parenting style are severely punished if they make a mistake (Jadon & Tripathi, 2017). This issue indicates that fear motivates children and makes them successful at school, so parents achieve their high grades. But when looking at their responsiveness to their teachers at school, it can be imagined that these students are not as responsive as students who are educated according to an resolute style, which is the reason for the lack of the relationship significance. Hence, despite the children's exemplary achievements, it is still clear that children who are educated according to the resolute style have better achievements in mathematics. To compare both parenting styles, one can examine table 2, which shows that students' achievements in mathematics raised by resolute parents are higher than children raised by authoritarian style.

The fourth hypothesis:

There will be a positive relationship between authoritarian parenting style and discipline among students

The findings also indicate a positive and significant relationship between authoritarian parenting style and student discipline. This is true for the field in class and also within the schoolyard. This finding contradicts the research hypothesis and what is found in the literature review. This hypothesis was written because their parents pressure children raised by authoritarian style, so they turn to school to relieve stress. This education style can behaviorally disappoint parents due to the stress and lack of autonomy they exert on their children. However, the present study's findings show that this is not true of children in Arab society. Heavy punishment exposes children to negative reactions and negative behaviour, although the parents' goal is educational. This parenting style can cause emotional damage to their children and lead to negative behaviour in the schoolyard (Friendson, 2016).

Nevertheless, the study's findings revealed. Otherwise, children's behaviour raised by this style is good behaviour both in the schoolyard and in class. It is conceivable that Arab society is closer to East Asian communities, which educate their children according to the authoritarian parenting style, making the children behave well in class and at home. Child's supervision may be very significant here. It helps parents controlling the discipline of their children as well. Nevertheless, when comparing the authoritarian parenting style to the resolute style by looking at the data in table 2, it can be seen that the discipline average among the students educated according to the resolute style is higher. So, it can be said that although education according to the authoritarian style is good, still the resolute style is better.

The fifth hypothesis:

There will be a negative relationship between the lenient parenting style, and student achievement in mathematics findings also show a negative and significant relationship between the lenient parenting style and the students' academic and cultural achievements in mathematics. These findings are consistent with the research hypothesis and the literature review. Based on these findings, it can be said that the lenient style is considered unsuccessful compared to the first two styles. This is because this parenting style stems from the parents' lack of awareness concerning the educational procedure.

Parents do not exercise supervision over their children and give them too much freedom, but on the other hand, they care about their children and are willing to provide them with all the needs they want. The result is that children get everything they want, but at the same time, there is no one to guide them on the right path to reach their goals. This model is abundant in Arab society (Fuentes & et al., 2015). This parenting style is prevalent in the Arab community. Parents think that by satisfying their children's needs, they make them appreciate them. Yet, in practice, children are educated without knowing that there are boundaries; consequently, their mathematics achievements are low, which has far-reaching consequences in the future.

The sixth hypothesis:

There will be a negative relationship between the lenient parenting style and students' discipline

The study's findings revealed a negative and significant relationship between the lenient parenting style and students' discipline in class and the schoolyard. These findings matched the literature review and research hypothesis. According to the study, children educated according to the lenient style are not used to having boundaries. Their parents do not set them educational goals either behavioural. Consequently, children develop habits that they are allowed to do what they feel like doing without limits. They think it is natural to behave this way at school, and they are even surprised with boundaries at school. Hence they are expected to be problematic at school (Checa & Abundis-Guiterrez, 2018). This behaviour has future consequences because if the child does not realize that his behaviour is incorrect, he can be violent in adulthood and cause him and his family many problems. The last two findings place this parenting style at the bottom of the scale of the effective parenting styles.

The seventh hypothesis:

There will be a negative relationship between the style of indifferent parenting style and student achievement in mathematics

The study's findings revealed a negative and significant relationship between indifferent parenting style and student achievement in mathematics. In this case, the research hypothesis was confirmed, and it is consistent with the literature review. It is not surprising that when parents are not involved in their children's educational process, children have no boundaries, no goals and no one to guide them on the right path. These children have no one to ask them what they have done at school or who help them with homework. They are isolated both at home and at school (Garcia & Serra, 2019). Hence, it is not surprising they have the lowest achievements in mathematics in school.

The eighth hypothesis:

There will be a negative relationship between indifferent parenting style and students' discipline

The study's findings revealed a negative relationship between indifferent parenting style and student discipline. This finding confirms the research hypothesis and illustrates what is written in literature. This finding reinforces the claim that this parenting style is the worst of the four types. According to this style, parents do not exercise supervision neither provide children with their needs. Parents are not involved in the educational process. This creates serious problems such as discipline issues. As found in the latter finding, there is a negative relationship between indifferent parenting style and student discipline, consistent with the research hypothesis and reinforcing the literature review. Children whose parents are not involved cannot be expected to be successful children in school (Garcia & Serra, 2019). Hence, it can be said that these children are victims in our society who can eventually turn to the world of crime, drugs and alcohol with a lack of their parents' supervision and involvement.

Summary and Conclusions

There are four common parenting styles. From them, other parenting styles are derived. The four most common parenting styles are the resolute, the authoritarian, the lenient and the indifferent. According to the resolute parenting style, children are at the centre. They get the love and warmth they need, and their parents set goals they need to accomplish. This style is considered the most effective because its impact on student achievement in mathematics and discipline is most favourable. According to the authoritarian style, parents determine their children to achieve goals. Still, there is no balance with the parents' responsiveness, so they have to obey without any explanation. This style's effect on student achievement in mathematics is positive, but its impact on the child's behaviour can be both positive and negative. The two worst parenting styles are the lenient style, according to which the child receives a lot of attention from his parents, but no goals are set for him. Hence, parents expect to be appreciated by their children just because they give them everything they want. According to the literature, this parenting style is ineffective because children develop habits of carelessness and irresponsibility and believe they deserve everything without putting in any effort. This style negatively affects student achievement in mathematics and behaviour at school. Finally, the fourth parenting style that this study discusses is indifferent. Following this style, children do not receive attention from their parents, and parents do not set goals or rules for their children. Hence, parents are detached from their parents. The result is translated into poor school performance, in addition to serious discipline issues.

This study examined the relationship between parenting style and student achievement in mathematics and discipline. The aim was to determine whether parenting style could influence student achievement in mathematics and their school behaviour. Student achievement in mathematics was defined as an academic achievement when the reference

here is the student grades. In contrast, mathematics's cultural achievements relate to students' adherence to schedules and their collaboration with their teachers. Besides, students' discipline was defined as their discipline in class in the schoolyard.

The conclusions of the studies show:

1. The resolute parenting style is the best of the four. Children who are raised according to this style had the best results in terms of achievement and discipline.
2. Authoritarian parenting style is a perfect and successful style because the children's mathematics achievements in terms of grades were exemplary. Still, in terms of meeting deadlines and class participation, students of authoritarian parents were less good than resolute parents.
3. Contrary to what is found in the literature, the authoritarian parenting style has a good effect on student discipline in class and the schoolyard.
4. lenient and indifferent parenting styles were the good minor styles. The lenient style was better than the indifferent one, but children's achievements in mathematics and their discipline were not good in both of these parenting styles.

Ethics

To maintain research ethics, the participants were informed that the information they provide would be used solely for the present study; the information would not be published either accessed by anyone other than the researchers. Participants were told about the purpose of the study. They were informed that filling the questionnaire express their consent to participate in the study. Besides, to avoid bias in the findings, the questionnaire's link was sent exclusively to those who agree to participate.

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