

Relationship between Parenting Styles, Emotion Regulation and Socioemotional Functioning of Typically Developing Siblings of Autistic Children in Central Selangor, Malaysia

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Abstract

This study aimed to examine the relationship between parenting styles, emotion regulation and socioemotional functioning among typically developing siblings of autistic children. A cross-sectional survey employed quantitative approach was conducted using questionnaires which included three research instruments: Parental Authority Questionnaire (PAQ), Strengths and Difficulties Questionnaire (SDQ) and Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CA). It was carried out at the schools which provide Special Education Integration Program in Central Selangor, Malaysia. Altogether, 163 respondents aged from 10 to 17 were recruited using fishbowl method. The results of Pearson product-moment correlation analysis revealed both paternal and maternal authoritative parenting style as well as emotion regulation have significant positive relationship with socioemotional functioning. On the other hand, paternal permissive parenting style were significantly negatively correlated to socioemotional functioning among the typically developing siblings of autistic children. This study has provided an insight for more profound future research on the topic of socioemotional functioning of typically developing siblings of autistic children with parenting styles and emotion regulation.

Keywords: Parenting Styles, Emotion Regulation, Socioemotional Functioning, Typically Developing Siblings, Autistic Children

Introduction

Siblings play a vital role in children's development, often forming relationships that endure longer than those with parents. Studies show that children typically spend more time with siblings than with parents, which significantly influences their social, emotional, and cognitive growth (Buist et al., 2013; Dirks et al., 2015). Research by McAlister and Peterson (2013) and Backer-Grøndahl and Nærde (2017) highlighted the benefits of growing up with a sibling, such

as improving daily life functioning and fostering social-emotional skills. However, for typically developing siblings (TDS) of children with Autism Spectrum Disorder (ASD), these benefits might be compromised. ASD is characterized by persistent deficits in social communication and interaction, as well as restricted, repetitive behaviours (American Psychiatric Association, 2013). The World Health Organization (2023) notes that ASD-related difficulties can significantly impact various life domains, which may challenge the socioemotional functioning of TDS. In Malaysia, the situation is compounded by societal challenges, as public awareness and understanding of ASD are relatively low (Chu et al., 2018, Low et al., 2021), even the school teachers (Majin et al., 2017) and pre-service special education teachers (Abdullah et al., 2022) also found themselves not having adequate knowledge about ASD. This lack of understanding could exacerbate the difficulties faced by TDS, affecting their ability to manage both societal pressures and daily challenges associated with having a sibling with ASD. Despite these challenges, there is a notable gap in research concerning TDS of children with ASD in Malaysia, with insufficient attention from government and non-governmental organizations.

Socioemotional functioning (SEF) is defined as a child's ability to understand, regulate, and express emotions, maintain good social relationships, and manage social conflicts (Kwong et al., 2018). SEF integrates a range of social and emotional skills and is fundamental to both healthy psychological functioning and optimal developmental trajectories. Substantial research indicated that higher levels of SEF are associated with children's well-being and future success, such as improved academic performance, better social adjustment (Curby et al., 2015; Wang et al., 2019), and a lower risk of severe psychopathology in adulthood (Jaffar, 2022; Weissburg et al., 2015). These findings highlighted the critical role of SEF in facilitating not only immediate social and academic success but also long-term mental health and well-being. Besides, children exhibiting poor socioemotional skills are more likely to experience victimization (Gardner et al., 2017), lead to significant impairments in daily functioning, such as diminished prosocial behaviours and heightened social anxiety. Moreover, compromised SEF often results in strained relationships with both parents and siblings, further exacerbating the challenges faced by these children (Hudson & Rapee, 2002).

The role of parents in shaping their children's development is well-established, with a substantial body of research demonstrating their profound influence on various aspects of their children's lives, including attitudes, behaviours, emotional functioning, and relationships outside the family (Dekovich & Meeus, 1997). Theoretical and empirical studies consistently highlighted the critical impact of parental influence on children's SEF (Istianti et al., 2023; Roy & Giraldo-García, 2018), noting that the socialization processes primarily unfold within the family through dynamic parent-child interactions (Adler & Oppenheim, 2023; Larsson et al., 2022). To understand how parental behaviour affects SEF of the TDS, researchers have categorized these behaviours into distinct parenting styles (PS). Among the various frameworks available, Baumrind's model (1971, 1991) is the most widely recognized and utilized. Baumrind's framework is predicated on two fundamental dimensions of parenting: responsiveness and demandingness. Responsiveness refers to the extent to which parents are attuned to their child's needs and emotions, while demandingness pertains to the level of expectations and control parents impose on their children.

ER is a process by which individuals have the influence to change their emotional response tendencies as how they wanted in respond to the situational demands and at the same time

to target at restricting, inhibiting, or minimizing the intensity and frequency of an emotional arousal (Gross & Ford, 2024). It is a critical aspect of SEF in children which influence their ability to manage emotions, interact with others, and navigate social environments and the impacts of ER on the SEF of TDS of autistic children are both significant and multifaceted. Effective ER could enhance children's social interactions, emotional well-being, and overall adjustment. The influence of ER on TDS is even more crucial as TDS are living in an environment that always present with challenges and stress (Chu et al., 2023; Mokoena & Kern, 2022; Singh et al., 2020) due to the condition of their autistic sibling.

Methodology

Study Design and Participants

This research used a quantitative approach which utilised a cross-sectional survey and correlational research design. In this approach, data on demographic background and SEF of TDS, and their perceptions of PS and ER were collected at a single point in time using structured questionnaires. The correlational design was used to explore the relationships between the main variables: PS, ER and SEF of TDS. This study was carried out in the central zone of Selangor state, Malaysia which has the highest number of Special Education Integration Program (Program Pendidikan Khas Integrasi; PPKI) schools and high population density. The targeted population was the 10 to 17 years old TDS of ASD students. The sample size was determined using the Krejcie and Morgan (1970) formula, which indicated a minimum of 132 respondents. The respondents must fulfil the following criteria:

- i. the respondent must be a typically developing sibling of ASD children AND
- ii. the respondent must be aged between 10 to 17 AND
- iii. the respondent is NOT sitting for the Sijil Pelajaran Malaysia (Malaysian Certificate of Education) examination on the academic year when the study was carried out.

Finally, 163 respondents were recruited in this study by using the fish bowl sampling process.

Measures

Three established instruments were utilised in this study: Parental Authority Questionnaire (PAQ; Buri, 1991), The Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) and The Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CA; Gullone & Taffe, 2011). The three instruments initially were in English. Both the PAQ and ERQ-CA were translated into Malay and Chinese, while the SDQ only required translation into Malay, as a Chinese version was already available. The translation process from English to Malay and Chinese used the back-translation procedures (Brislin, 1970). In addition to assessing these primary variables, background information about the respondents was also collected.

Parental Authority Questionnaire (PAQ; Buri, 1991)

PAQ (Buri, 1991) is a tool designed by Buri in 1991 to assess parenting styles and behaviours. It is grounded in the typology of parenting styles proposed by Baumrind (1967, 1971), which includes authoritative, authoritarian, and permissive styles. PAQ (Buri, 1991) is used for measuring different dimensions of parental authority, focusing on how parents manage and guide their children's behaviour and attitudes. It helps in understanding how parenting styles impact children's development and well-being.

There are three subscales in PAQ (Buri, 1991) that assess three main parenting styles, namely authoritative, authoritarian and permissive PS. Each subscale has 10 items rated on a 5-point

Likert scale ranging from 1=strongly disagreed to 5=strongly agreed to which respondents indicate their level of agreement or frequency of behaviours. The score on each subscale is from a minimum of 10 to a maximum of 50 where the total score of each subscale could be computed by adding up across all the 10 items to reflect the degree to which each parenting style is exhibited. The higher score result reflected the higher perceived parenting style is. The items in each subscale and some of their corresponding examples are listed in Table 1. The PAQ has been validated and shows good reliability and validity. Buri (1991) reported high reliability for PAQ with Cronbach coefficient alpha values range from 0.74 to 0.87 for paternal PS, and 0.78 to 0.86 for maternal PS.

Table 1

Subscales and items in PAQ

Subscale	Items	Examples
Authoritative PS	4, 5, 8, 11, 15, 20, 22, 23, 27, 30	<ul style="list-style-type: none"> As I was growing up, once family policy had been established, my mother/father discussed the reasoning behind the policy with the children in the family. My mother/father gave me direction for my behaviour and activities as I was growing up and she expected me to follow her direction, but she was always willing to listen to my concerns and to discuss that direction with me.
Authoritarian PS	2, 3, 7, 9, 12, 16, 18, 25, 26, 29	<ul style="list-style-type: none"> As I was growing up my mother/father did not allow me to question any decision she/he had made. As I was growing up my mother/father let me know what behaviour she expected of me, and if I didn't meet those expectations, she/he punished me.
Permissive PS	1, 6, 10, 13, 14, 17, 19, 21, 24, 28	<ul style="list-style-type: none"> While I was growing up my mother/father felt that in a well-run home the children should have their way in the family as often as the parents do. As I was growing up my mother/father allowed me to decide most things for myself without a lot of direction from her.

The Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997)

SDQ (Goodman, 1997) is a 25-item measure designed to assess general emotional and behavioural functioning in children. It is a widely used tool in clinical settings and research studies in schools for screening purposes. SDQ (Goodman, 1997) comprises five subscales, that are emotional symptoms, conduct problems, hyperactivity, peer problems, and prosocial behaviour. The items on each subscale are rated on a 3-point scale (0=Not True, 1=Somewhat True, 2=Certainly True), reflecting the frequency of the behaviour or feeling. The score for each subscale is computed by adding the scores for the five items. Higher scores indicate more difficulties, while the Prosocial Behaviour scale is considered separately, and higher scores indicate greater prosocial behaviours. The total difficulties score in the SDQ is calculated as the sum of the scores obtained on all the subscales.

In the present study, the self-report version of SDQ is used to measure the socioemotional functioning of TDS, where TDS completed the self-report version of the SDQ about themselves. SDQ self-report version is designed for adolescents typically aged around 11-17

to provide their own perspective on their emotional and behavioural functioning. This is particularly useful for capturing TDS's own experiences and perceptions. Like the parent and teacher versions, the self-report SDQ divided into five subscales containing 25 items asking about the same 25 traits, just that the wording is slightly different (Goodman et al, 1998). The items in each subscale and some of their corresponding examples are listed in Table 2.

Table 2
Subscales and items in SDQ

Subscale	Items	Examples
Emotional symptoms	3,8,13,16,24	<ul style="list-style-type: none"> • Often complains of headaches, stomach-aches or sickness • Nervous or clingy in new situations, easily loses confidence
Peer problems	6,11,14,19,23	<ul style="list-style-type: none"> • Rather solitary, tends to play alone • Gets on better with adults than with other children
Conduct problems	5,7,12,18,22	<ul style="list-style-type: none"> • Often has temper tantrums or hot tempers • Often lies or cheats
Hyperactivity	2,10,15,21,25	<ul style="list-style-type: none"> • Restless, overactive, cannot stay still for long • Easily distracted, concentration wanders
Prosocial behaviour	1,4,9,17,20	<ul style="list-style-type: none"> • Considerate of other people's feelings • Often volunteers to help others (parents, teachers, other children)

The internal consistency of the SDQ self-report version total difficulties score is good with Cronbach's alpha value ranges from .70 to .75. (Koskelainen et al., 2000; Theunissen et al., 2019), indicating that the SDQ self-report is valid for the assessment of emotional and behavioural problems in children and adolescents. Furthermore, the findings from Hobbs & Laurens (2020) concluded that there were no differences on the psychometric perspective between the self-reported prosocial behaviours in children 9 to 10 years and children aged 11 years. In other words, SDQ self-report version is also suitable to be used by some of the participants of this study who are 10-year-old.

The Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CA; Gullone & Taffe, 2011)

ERQ-CA (Gullone & Taffe, 2011) is a specialized assessment tool designed to measure emotion regulation strategies in children and adolescents. The ERQ-CA (Gullone & Taffe, 2011) is adapted from the original version developed by Gross & John (2003). The questionnaire has been modified for children aged 10-18 by simplifying the language of the items. For example, the original item "I control my emotions by not expressing them" was revised to "I control my feelings by not showing them" to make it more understandable for younger participants. Additionally, the response scale was shortened from a 7-point Likert scale to a 5-point scale.

The ERQ-CA (Gullone & Taffe, 2011) focuses on the use of specific emotion regulation strategies by children and provides valuable insights into their emotional well-being and coping mechanisms. It comprises two subscales with 10 items, 6-item for cognitive reappraisal subscale and 4-item for expressive suppression subscale. Each item is rated on a

5-point Likert scale ranging from 1=strongly disagreed to 5=strongly agreed to which respondents indicate the frequency or intensity of their use of cognitive reappraisal and expressive suppression. The items in each subscale and some of their corresponding examples are listed in Table 3.

Table 3

Subscales and items in ERQ-CA

Subscale	Items	Examples
Cognitive Reappraisal	1,3,5,7,8,10	<ul style="list-style-type: none"> • When I want to feel happier, I think about something different. • When I'm worried about something, I make myself think about it in a way that helps me feel better.
Expressive Suppression	2,4,6,9	<ul style="list-style-type: none"> • When I am feeling happy, I am careful not to show it. • When I want to feel less bad (e.g., sad, angry or worried), I'm careful not to show it.

The Cognitive Reappraisal (CR) subscale scores range from a minimum of 6 to a maximum of 30, while the Expressive Suppression (ER) subscale scores range from a minimum of 4 to a maximum of 20. Scores for each subscale are calculated by summing the responses to all items within that subscale, reflecting the extent to which the respective emotion regulation strategy is used. Higher scores on the CR subscale typically indicate more frequent use of cognitive reappraisal, which is often linked to positive outcomes like better emotional adjustment and resilience (Dalimunthe & Nasution, 2023; Zhang et al., 2023; Zhao & Zhao, 2015). Conversely, higher scores on the ER subscale suggest more frequent use of suppression, which is commonly associated with negative outcomes such as increased emotional distress and lower psychological well-being (Gökdağ et al., 2024; Zhang et al., 2023; Zhao & Zhao, 2015). Research by Gullone & Taffe (2012) found that the ERQ-CA demonstrated strong internal consistency and stability, affirming its validity as an age-appropriate tool for assessing these two specific emotion regulation strategies during childhood and adolescence.

Data Collection

In the present study, data was collected using a questionnaire survey. The process began with obtaining approval from the Education Planning and Research Division, Ministry of Education Malaysia, followed by securing ethical approval from the Jawatankuasa Etika Universiti Putra Malaysia (Ethic Committee University of Putra Malaysia). Once these approvals were in place, a pilot study was conducted to ensure the reliability of the survey instruments. The next step involved acquiring permission from the Selangor Education Department to conduct the study in the PPKI schools located in Central Selangor. Then to obtain approval from the school head of the selected PPKI schools. Upon receiving approval, a briefing session was held with the PPKI head teachers to explain the study and its procedures. Subsequently, hard copy survey questionnaires, respondent information sheets, informed consent forms, and guardian/parent consent letters were distributed to the parents of autistic children to bring back to the participants. These materials were to be returned by the participants within a two-week period. After the two weeks, the completed questionnaires were collected from the PPKI head teachers.

Data Analysis

Data analyses were conducted using IBM Statistical Package for Social Science (SPSS) software version 29.0.0.0. Exploratory Data Analysis was conducted to assess the normality of the data. Then descriptive statistical analyses were used to analyse and summarize the background information of the respondents, as well as to examine the data patterns of the main variables. The results of the analyses were presented as frequencies, percentages, mean and standard deviation. Furthermore, the minimum and maximum values were also reported, giving a comprehensive view of the range within the dataset. Following this, Pearson Correlation analysis was used to determine the strength and direction of the relationship between PS, ER and SEF among the TDS of ASD children.

Results*Demographic Characteristic of the Respondents*

Table 4 showed the personal characteristics of the respondents which included age, gender, ethnic, birth order, and whether respondents is older than their autistic sibling. The respondents aged between 10 to 17 years old with mean age 13.590 and SD was 2.185. With a total of 163 respondents, most of the respondents were male (55.8%), and female respondents contributed 44.2%. For the ethnic composition, more than half of the respondents were Malay (63.2%), followed by Chinese (33.1%), Indian (3.1%) and 0.6% of other ethnic. The findings shown that 49.1% of the respondents are the eldest child in the family, 29.4% is the middle child and 21.5% is the youngest child. The findings also revealed that 65% of the respondents are older than their autistic siblings.

Table 4

Frequency Distribution of Personal Background Characteristics (n=163)

Variables	n	%
Age		
10	11	6.7
11	22	13.5
12	32	19.6
13	18	11.0
14	16	9.8
15	20	12.3
16	27	16.6
17	17	10.4
Mean= 13.590		
SD=2.185		
Minimum=10		
Maximum=17		
Gender		
Male		
Female	91	55.8
Ethnic	72	44.2
Malay		
Chinese		
Indian	103	63.2
Other	52	33.1

	5	3.1
Birth order	1	0.6
Eldest		
Middle child		
Youngest	80	49.1
	48	29.4
Respondent is elder than autistic sibling	35	21.5
Yes		
No		
	106	65.0
	57	35.0

Note: SD=Standard Deviation

Family Characteristics of the Respondents

Family characteristics are summarized in Table 5. Most of the respondents' fathers were in the age group 40-49 years old (57.1%), followed by those in the 50-59 age group (24.5%), 30-39 years old (16.0%), and only 2.4% were aged 60 years and older (Mean = 45.88, SD = 6.18). For mothers, the largest age group was 40-49 years old (65.6%), followed by 30-39 years old (27.0%), 50-59 years old (7.4%), with no mothers being older than 59 years (Mean = 42.42, SD = 4.95).

As for ethnic composition, both fathers and mothers are having the biggest percentage of Malays (father 62.6%, mother 63.2%), followed by Chinese (father 33.1%, mother 31.9%), Indian (father 3.1%, mother 3.1%), and others (father 1.2%, mother 1.8%). Most fathers have their education up to SPM level (26.4%), followed by Diploma (25.8%), and bachelor's degree (20.9%), fathers with PhD degree and no formal education are both 0%. On the other hand, the education level for mother consists of most SPM holders (33.1%), followed by bachelor's degree (25.8%) and Diploma

Table 5

Frequency Distribution of Family Background Characteristics (n=163)

Variables	n	(%)	n	(%)	n	(%)
	Father		Mother			
Parents' Age						
30 – 39	26	16.0	44	27.0		
40 – 49	93	57.1	107	65.6		
50 – 59	40	24.5	12	7.4		
>59	4	2.4	0	0		
Father						
Mean= 45.88	SD=6.184					
Min=31	Max=66					
Mother						
Mean= 42.42	SD=4.950					
Min=30	Max=59					
Parents' Ethnic						
Malay	102	62.6	103	63.2		
Chinese	54	33.1	52	31.9		
Indian	5	3.1	5	3.1		
Other	2	1.2	3	1.8		
Parents' Education Level						
PhD	0	0	1	0.6		
Master's degree	5	3.1	7	4.3		
Bachelor's degree	34	20.9	42	25.8		
Diploma	42	25.8	34	20.9		
Certificate	7	4.3	5	3.1		
STPM/HSC/A-level	1	0.6	5	3.1		
SPM/MCE/O-level	43	26.4	54	33.1		
PMR/SRP/LCE	22	13.5	10	6.1		
Primary school	8	4.9	3	1.8		
No formal education	0	0	1	0.6		
Other	1	0.6	1	0.6		
Parents' Occupation						
Upper-level white collar	48	29.4	50	30.7		
Lower-level white collar	20	12.3	26	16.0		
Blue collar	49	30.1	2	1.2		
Unemployed	5	3.1	5	3.1		
Home maker	0	0	69	42.3		
Others	41	25.2	11	6.7		
Family Economic Status						
T20					26	16.0
M40					57	35.0
B40					46	28.2
B40 (B1)					34	20.8

Note: SD=Standard Deviation; Min=Minimum; Max=Maximum; PMR=Penilaian Menengah Rendah; SPM=Sijil Peperiksaan Malaysia; STPM=Sijil Tinggi Peperiksaan Malaysia; PhD=Philosophy of Doctorate; T20=Upper class with average household monthly income RM10971; M40= Middle class with average household monthly income between RM4851 and RM10970; B40= lower income group with average household monthly income RM4850 and below; B40(B1)= lowest income group with average household monthly income less than

RM2500 (20.9%) with 1 mother (0.60%) with PhD holder and 1 mother (0.60%) has no formal education. In term of employment status, most fathers fell into the blue-collar category (30.1%) followed by upper level white-collar (29.4%) and others (25.2). There were 42.3% of mothers who were home maker, followed by upper-level white collar (30.7%) and lower-level white collar (16.0%).

The family economic status in the current study was based on the household monthly income. From the research results, we found that majority of the families was at the B40 economic status, where 28.2% of the families were with average household monthly income RM4850 and 20.8% only earned an average household monthly income less than RM2500. Meanwhile, the M40 middle class economic status family contributed to 35.0%, followed by B40 (28.2%).

Level of Socioemotional Functioning

Patterns of the SEF among TDS of autistic child were displayed in Table 6. 34.4% of the respondents manifested low levels of SEF, 31.9% were at moderate levels of SEF and 33.7% achieved high levels of SEF. The findings delineated that most of the respondents had low levels of SEF. However, the difference between TDS manifested low levels of SEF and TDS achieved high levels of SEF is only 0.7%. This exceptionally small variance in SEF might indicate that a relative uniformity in the environmental or familial factors influencing both groups, such as the challenges and stressors that TDS encountering daily, or access to social and emotional support systems.

Table 6

Frequency Distribution and Categories of SEF (n=163)

Variables	n	%	Mean	SD	Min	Max
Social Emotional Functioning			17.09	5.96	6	32
Low (1.00 – 1.23)	56	34.4				
Moderate (1.24 – 1.51)	52	31.9				
High (1.52 – 1.95)	55	33.7				

The Relationship between Parenting Styles, Emotion Regulation and Socioemotional Functioning

Pearson Product-Moment correlation analysis was conducted to examine the bivariate relationships between PS, ER and SEF of the TDS of autistic children.

The Relationship between Parenting Styles and Socioemotional Functioning

The correlation analysis result exhibited at Table 7 delineated that paternal authoritative PS and maternal authoritative PS have significant positive relationship with SEF among the TDS with $r=.171$, $p<.05$ and $r=.223$, $p<.01$ respectively, while paternal permissive PS have significant negative relationship with SEF among the TDS with $r=-.209^{**}$, $p<.01$. This result demonstrated that more paternal authoritative or more maternal authoritative would cause higher SEF among the TDS. Contrary, the higher level of paternal permissive will cause the lower level of SEF among the TDS of autistic child. The strength of the association between paternal authoritative PS, maternal authoritative PS and paternal permissive PS with SEF among the TDS was weak (Schober et al., 2018). Meanwhile, paternal authoritarian PS, maternal authoritarian PS and maternal permissive PS were not significantly correlated to SEF of the TDS.

Table 7

Relationship between Paternal PS, Maternal PS and SEF among the TDS (n=163)

Variable	SEF	
	r	p
Paternal Authoritative PS	.171*	<.05
Paternal Authoritarian PS	-.133	>.05
Paternal Permissive PS	-.209**	<.01
Maternal Authoritative PS	.223**	<.01
Maternal Authoritarian PS	-.004	>.05
Maternal Permissive PS	-.124	>.05

Note: * $p < .05$ Correlation is significant at the 0.05 level (2-tailed).

** $p < .01$ Correlation is significant at the 0.01 level (2-tailed).

The Relationship between Emotion Regulation and Socioemotional Functioning

Referring to the findings shown in Table 8, there was a positive relationship between ER and SEF among the TDS of autistic child ($r = .285$, $p < .01$). This demonstrated that TDS who reported to have higher level of ER would have higher level of SEF. The result also indicated that the correlation between the two variables is statistically significant.

Table 8

Relationship between ER and SEF among the TDS (n=163)

Variable	SEF	
	r	p
ER	.285**	<.01

Discussion

The Relationship between Parenting Styles and Socioemotional Functioning

Numerous research revealed that parents play an important role in the development of social emotional functioning of children and authoritative PS were most beneficial to the development of social emotional and psychological health of children (Agoha et al., 2021; Kuppens & Ceumans, 2019; Li, 2022; Luo et al., 2021; Reyes-Wapano, 2021; Vasiou et al., 2023; Yazdani & Daryei, 2016; Zhang et al., 2020). These findings supported the current results where paternal and maternal authoritative PS were significantly correlated to SEF of TDS with positive r value. Vasiou et al. (2023) revealed that authoritative PS was positively associated with child's social emotional competence. In the study, 1203 parents evaluated their 6 to 18 years old children's behavioural and emotional problems in their everyday life using Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). The direct effect of the relationship between the authoritative PS and internalizing problems, externalizing problems and prosocial behaviours was -0.16, -0.30 and 0.35 respectively with $p < 0.001$. Vasiou et al. (2023) proclaimed that children and adolescents raised under parents with authoritative PS, characterized by high levels of behavioural control and support and lower levels of psychological control, shown a positive developmental status in their socioemotional functioning.

Similarly, findings from Zhang et al. (2020) also supported the current findings. Zhang et al. (2020) delineated that authoritative PS was positively correlated to social emotional skills. Furthermore, Luo et al. (2021) also revealed authoritative PS was positively associated with

children psychological health where children with both father and mother exhibited authoritative PS had significantly better psychological adjustment, showing highest social skills, lowest externalizing problems and internalizing problems. The similar results were also found for 300 secondary school students with age 15.15 ± 3.95 years old (Agoha et al., 2021), for gifted and normal adolescents aged 11 to 14 (Yazdani & Daryei, 2016), supporting the persistent positive influence of authoritative PS on children's socioemotional development. Furthermore, a literature review by Reyes-Wapano (2021) proclaimed that authoritative PS was positively correlated to social emotional competence which then promote children's positive life adjustment. All these existing research findings supported the current result which highlighted that either paternal or maternal authoritative PS would positively support the healthy development of SEF among the TDS.

The current findings of the relationship between parental authoritarian PS and SEF of the TDS aligned partially with previous research (Delvecchio et al, 2020; Kuppens & Ceulemans, 2019; Luo et al., 2021; Nikoogoftar & Seghatoleslam, 2015; Vasiou et al., 2023), which demonstrated a negative relationship between parental authoritarian PS and children's socio-emotional functioning (SEF). While these earlier studies consistently identified this inverse relationship, the statistical significance observed in these studies did not reflect in the current findings. This suggested that although authoritarian parenting potentially impact SEF negatively, the strength or consistency of this association appears weaker or less robust in the present study, which highlighting a possible difference in the underlying population characteristics. The inherent complexities of the family dynamics and stressors that TDS with autistic sibling experience daily (Flenik et al., 2023; Glasberg, 2000) could overshadow the influences of authoritarian PS, making it difficult to establish a clear correlation between authoritarian parenting and socioemotional outcomes. Generally, authoritarian parenting, characterized by high demands and low responsiveness has negative impact on children's development. However, for TDS who are living under a unique and complex family dynamic environment, they might need a certain amount of authoritarian parenting behaviour for them to be more socioemotional functional.

Authoritarian parenting that characterised by low warmth and high demand emphasizes obedience and self-discipline. This creates a structured environment that could help TDS of autistic children develop self-management skills. By adhering to strict rules, TDS develop self-control and fosters boundary-setting which help them in managing their emotions and behaviours during interactions with their autistic sibling or dealing with society prejudice (Li, 2022). Additionally, the clear expectations set by authoritarian parents help TDS understand social norms, which is crucial when navigating the unique responses of their autistic sibling. This understanding enhances their socioemotional competence, allowing for more effective interactions (Vasiou et al., 2023). Furthermore, the high expectations associated with authoritarian PS could improve decision-making skills which enable TDS to assess situations quickly and make better choices, particularly in high-pressure scenarios involving their autistic sibling. Furthermore, in Asian cultural contexts which value collectivism, obedience, and respect for hierarchy, authoritarian parenting is more accepted and could yield positive outcomes (Gardner et al., 2016).

The Pearson correlation coefficient and p-value for paternal permissive and maternal permissive PS with SEF of the TDS of autistic child were $r=-.209$, $p<.01$ and $r=-.124$, $p>.05$

respectively. The current finding of the negative and significant relationship between paternal permissive PS and SEF among the TDS exhibited that the higher level of paternal permissive would cause the lower level of SEF among the TDS of autistic child and is supported by the existing studies which shown that permissive PS was negatively and significantly associated with children's various socioemotional development (Agoha et al., 2021; Butnaru, 2016; Liu & Merritt, 2018; Vasiou et al., 2023; Yang, 2024). However, the relationship between maternal permissive PS and SEF among the TDS of autistic child was not statistically significant and is consistent with the findings from Yan and Badayai (2021) which revealed that there was no significant relationship between permissive PS and depression symptoms among the university students from The National University of Malaysia (UKM) although most of the participants (72.5%) were found to have a minimal level of depression symptoms.

The current findings demonstrated that the negative relationship between the paternal permissive PS is statistically significant to SEF, while this is not the case for maternal permissive PS. This discrepancy could be explained by the unique and complex family dynamics present in the households with an autistic child. TDS navigate intricate emotional landscapes which require different coping strategies. The presence of a permissive father may exacerbate feelings of insecurity or lack of guidance, whereas a mother's nurturing approach may provide stability and support (Vasiou et al. 2023). Furthermore, mothers typically engage more with their children, taking on caregiving and managerial roles (Sanjeevan & Zoysa, 2018), which leads to higher emotional support and responsiveness. This emotional availability could buffer against adverse socioemotional outcomes, making maternal permissiveness less statistically significant in this context (Agbaria & Mahamid, 2023). Additionally, mothers of children with autism are generally more involved in social interactions and exhibit greater sensitivity compared to fathers (Giannotti et al., 2021; Poirier et al., 2024). In contrast, fathers often participate less frequently and may adopt a more directive approach, resulting in TDS perceiving paternal permissiveness as a lack of guidance in their challenging environment. These differences in parental engagement influence how siblings perceive emotional support and guidance from their fathers and mothers. Consequently, TDS might internalize the permissiveness from fathers more negatively and ultimately affecting their socioemotional development significantly.

The Relationship between Emotion Regulation and Socioemotional Functioning

This current finding is resonated with previous studies which manifested the importance of ER in facilitating social emotional adjustment, psychological functioning, stressful life events, and social interactions (Aune et al., 2023; Dalimunthe & Nasution, 2023; Hamaidi et al., 2021; McQuade & Breau, 2017; Qian et al., 2022; Stover et al., 2024; Uhl et al., 2019; Zhao & Zhao, 2015).

According to the meta-analysis of Stover et al. (2024) which examined the association between CR and personal resilience revealed that more uses of adaptive ER strategy heightened personal resilience. Their finding with medium effect size positive association emphasized the importance of adaptive and effective emotion regulation strategies in fostering personal resilience. Resilience enables TDS to adapt, manage stress, and recover quickly from adversity and stressful events, helping them grow from setbacks and handle future challenges with greater ease. Furthermore, the finding indicated that CR skills served

as a protective strategy against stress and adversity would be benefited to TDS who lives in a stressful and adverse environment.

According to Gross & John, (2003) and Polizzi & Lynn (2021), CR could reduce the impact of negative experiences and enhance positive emotions in response to such events. When TDS is stressful or feel adverse, TDS could apply CR strategies which involves changing the way how they interpret the stressful or adverse situation. For example, by reframing their thoughts about their autistic sibling's behaviour, social stigma, unfair parental treatment and other challenges, TDS could reduce feelings of frustration, anxiety, or sadness. These could then help TDS manage their challenges and emotions more effectively and foster healthy SEF.

Findings from McQuade & Breau (2017) indicated that adaptive ER skills were positively associated with socioemotional adjustment of pre-adolescents. With better ER strategies, pre-adolescents, included TDS are more capable of managing and responding to their emotions in a healthy way, fostering better interpersonal relationships and social-emotional well-being. Effective ER could help TDS to manage the negative emotions they experienced such as embarrassment, anger, sadness more effectively and reduce stress, which in turn supports their social interactions, improves self-awareness, and enhances their overall SEF. This ability to regulate emotions contributes to better adjustment in social settings, as it allows TDS to cope with challenges, resolve conflicts, and maintain stable emotional reactions in various challenging social environments. Similarly, Dalimunthe & Nasution (2023) also found that the dimensions of ER - CR and ES have a significant impact on the high school 10th-grade students' self-adjustment, accounting for 25.9% of the variance. This indicated that these students were functioning better in their socioemotional domains which otherwise would be unable to manage their emotions efficiently, exhibited more diagnostic symptoms of internalizing disorders, such as depression and anxiety. Furthermore, ER also significantly associated with social competence (Hamaidi et al., 2021).

Besides, ability to regulate emotions may help reduce depressive symptoms in at-risk adolescents. The findings of Aune et al. (2023) proclaimed that ER was associated with depression and the ability to regulate emotion adequately helps to mitigate the effects of stressful life events on depression. Other findings also revealed that inability to regulate emotion adequately caused internalizing problems and mental health problems, non-suicidal self-harm and suicidal behaviour as well as psychopathology (Cheung et al. 2020; Dryman & Heimberg, 2018; Kennedy & Brausch, 2024; Lim et al., 2023; Yadlosky et al., 2023; Zafar et al., 2021).

Conclusion

The current findings revealed that there were significant positive relationships between paternal authoritative and maternal authoritative PS and SEF of the TDS. On the other hands, paternal permissive parenting style have significant negative association with SEF of the TDS. Furthermore, ER was positively correlated to SEF of the TDS. These results elucidated the interplay between PS, ER and SEF within the context of Erik Erikson's Psychosocial Development Theory (Erikson E. H., 1963, 1968) and Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1979). In other words, authoritative parenting, characterized by warmth, sensitivity, and support, plays a crucial role in fostering healthy SEF among TDS, particularly during the Industry vs. Inferiority stage. This supportive environment enables TDS

to effectively navigate the complexities associated with having an autistic sibling, thereby enhancing their confidence and competence in managing emotionally demanding tasks. In the Identity vs. Role Confusion stage, adolescents benefit from authoritative parenting as it significantly aids in resolving identity-related crises, facilitating a clearer sense of self and mitigating feelings of inadequacy.

Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1979) underscores the importance of the microsystem in shaping TDS's socioemotional development, wherein parental interactions directly influence their SEF. The positive correlation between authoritative PS and SEF emphasizes the necessity for structured and nurturing parenting practices. Workshops designed to enhance parental warmth, responsiveness, and support could significantly promote TDS's socioemotional outcomes. Moreover, given the adverse effects associated with paternal permissive parenting, initiatives encouraging fathers to take a more active role in guiding and structuring their interactions with TDS are essential. Such engagement could better equip TDS to navigate complex family dynamics. Furthermore, the critical role of ER capabilities suggests that schools and community organizations should implement programs focused on teaching ER skills. These initiatives would empower TDS to manage their emotions effectively, thereby enhancing their overall SEF.

Therefore, to comprehensively address the socioemotional needs of TDS, a multifaceted approach aligned with Malaysia's legal frameworks on children's rights is imperative. By enhancing family services, educational support systems, and public awareness campaigns, policymakers and community organizations could foster an inclusive environment that promotes the SEF and well-being of TDS.

Limitation

There are a few limitations in this study. First, there was no direct contact between the researchers and the participants as the questionnaire was distributed to the TDS through the PPKI school teachers. This process might affect the accuracy and reliability of the data collected as without direct interaction; participants are not able to immediately clarify the doubt that they might have regarding the survey. Furthermore, participants might misinterpret the survey questions or fail to understand specific terms or concepts which would lead to inaccurate or bias responses. In addition, participants answered the questionnaire at home where the condition or some distracting factors might affect their answers. Moreover, self-report measures might be biased by TDS's feelings at the time they completed the questionnaire.

Another limitation is this current study applied cross-sectional nature of the data. This design of study is normally carried out at one point of time which limits the understanding of how PS, ER and SEF of TDS might change or develop over time as TDS grow older, as family dynamics shift or as autistic sibling's needs change. This approach would not be able to capture these developmental trajectories.

Next limitation being the present study only examined the relationships between PS, ER, and SEF among TDS which might overlook other potential factors such as family dynamics, peer relationships, social prejudice and stigma, as well as social supports that could influence SEF of TDS. These potential factors might play crucial roles in shaping the socioemotional

experiences of TDS which is essential in understanding SEF of TDS in a broader context and capture the multifaceted nature of TDS socioemotional development. By not considering these potential factors, the study might provide an incomplete picture that could impede better understanding of the needs of the TDS and hinder the development of effective interventions aimed at supporting them.

It is suggested that future research should consider a wider range of variables and contextual factors such as family cohesion, peers or teachers' supports to better understand the complexities involved in SEF among TDS. Besides, employing mixed methods or longitudinal designs could enrich findings and inform more effective interventions that address the multifaceted nature of socioemotional development in the TDS population. Furthermore, expanding research to include TDS from various geographic locations other than the Central Zone of Selangor could enhance generalizability. For instance, include more states in Malaysia, comparing urban versus rural settings. This might reveal how environmental factors influence PS and SEF among TDS.

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