



The Impact of Parental Involvement and Self-Efficacy in Anchoring the Psychological Resilience among Chinese Adolescents with Learning Difficulties: Mediating Role of Achievement Motivation

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ABSTRACT

Over the past few decades, there has been a noticeable focus on adolescents' learning and participation activities. Surveys and studies conducted in academic schools in China have reported an increase in cases of adolescents experiencing learning difficulties. The previous research has linked the concept of learning difficulties and disabilities within the broader cultural, social, and academic context. Existing studies shed light on various factors responsible for triggering learning difficulties and how to resolve them. The literature commonly identifies academic factors, such as the school environment and teaching styles, as potential causes of learning difficulties. However, studies have often neglected social elements, including the role of parents and an individual's self-efficacy. This study examines personal and social factors to analyze their impact on the psychological resilience of adolescents. A quantitative design was adopted where data was collected from adolescents across China through Wen Juan Xing. The findings imply that parental involvement, but not self-efficacy, significantly impacts psychological resilience. Additionally, it was discovered that parental involvement, self-efficacy, and psychological resilience weren't mediated by achievement motivation. The findings from the study can be used by parents, managers, and other children welfare organizations to develop policies and processes that are supportive of the development and resilience of the adolescents.

Keywords: Resilience, self-efficacy, parental support, parental involvement, self-determination.

INTRODUCTION

There has been an explicit focus on adolescents' learning and participation activities for the last few decades. The surveys and studies of the academic schools in China reported the increased cases of adolescents having learning difficulties. The concept of learning difficulty and disability thus placed in the broader cultural, social, and academic areas by various researchers. The existing studies on such issues shed light on various factors responsible for triggering learning difficulties and how they can be resolved. Most of the factors which appeared common in existing literature include academic factors i.e. school environment, teaching styles, etc. (Westwood, 2018; Suleman et al., 2021; Suleman & Rahman, 2020). The social elements including parental role and individuals' self-efficacy is neglected by various studies. As the Chinese schools, especially middle schools, are witnessing huge number of cases with learning disabilities, this issue needs to be addressed by the current researchers (Zhang et al., 2020). The present study considers the personal and social factors to analyze their impact on the psychological resilience of the adolescents. The importance of developing self-efficacy and resilience in the children has been emphasized in various countries at the international level so that the young age group can be encouraged to participate in different programs by which their self-development can be made possible (Schleser & Berry, 2018; Ashraf et al., 2020; Ashraf, Halim & Talib, 2020; Ashraf et al., 2019). It has given rise of the emphasis on redistributing the power to young people without considering them unable to do something innovative so that the practice of raising their voice and influencing the matters they get affected can be exercised.

Despite the general behaviors, each country's social and cultural context exerts a different impact on the development of individuals' personalities. Also, less study focuses on the mediating role of achievement motivation in helping students building resilience and achieve academic achievement. The present study, therefore, investigates the learning issues of adolescent population in the Chinese context by examining relevant variables. Moreover, the study introduces novel links between self-efficacy, Parental involvement, and psychological resilience. The study deviated from the conventional research debates by identifying and filling the research gaps (Suleman & Mohamed, 2019; Suleman, Mohamed & Ahmmed, 2020; Suleman et al., 2023).

The present study has both practical and academic implications. As the study established a connection between learning-related factors and added novelty in the existing research studies, it

will prove a significant asset in the current scholarly debates. This study is theoretically important because it will also contribute to establishing a basic understating of the learning difficulties, the involved factors, and how they can be managed. It will capture a well-rounded picture of whole mechanism. The study can be seen as a significant extension of previous research studies available on this topic.

Furthermore, this study is significant to the China's education system, this is because the study will be conducted particularly in the context of China and will assist the field experts dealing with the adolescent population with learning difficulties. This would help design more suitable and specific teaching instructions and curriculum for teenagers or adolescents. From teachers' perspective, this study would tremendously help instructors, advisors, tutors to know more about students' mental health and help to offer more suggestions and take effective measures to help students who are mentally disorder with learning difficulties. For students, the outcomes of this study will help in formulating better strategies to improve self-efficacy and psychological resilience of individuals some help them enhance their academic performance. The significance of the study covers all the different aspect s of the study including the social, economic, practical, and theoretical aspects. It also reflects the significance of the previous studies and then their results are compared to the result of the current history (Allen, 2008).

LITERATURE REVIEW

Social cognitive theory

“Social Cognitive Theory” (SCT) describes “the influence of individual experiences, the actions of others, and environmental factors on individual health behaviors.” According to SCT, “behavior is influenced directly by goals and self-efficacy expectations and indirectly by self-efficacy, outcome expectations, and socio-structural factors.” Here, goals are determined as the efforts invested by an individual for changing the behavior and serves as “guides to action.” While self-efficacy is referred as “person's belief in their ability to perform a specific action in a particular situation” and outcome expectations are considered as “the beliefs regarding the consequences (positive and negative) of performing the behavior.” According to SCT, a certain level of motivation is required for achieving the desired goals (Akbari et al., 2021). The present research study also plays an important role in determining the impact of self-efficacy on the psychological resilience in adolescents with learning difficulties. In this study, by considering SCT, the social

environment that impacts the outcome, is the parental involvement and self-efficacy (Ashraf et al., 2019; Ashraf, Ahmad & Azlizan, 2019). Even though self-efficacy is not enough to achieve the desired goal, achievement motivation is considered a booster in this research study which help in obtaining the desired outcomes by increasing the self-efficacy at a higher level. This study's desired outcome is the psychological resilience among adolescents with learning difficulties.

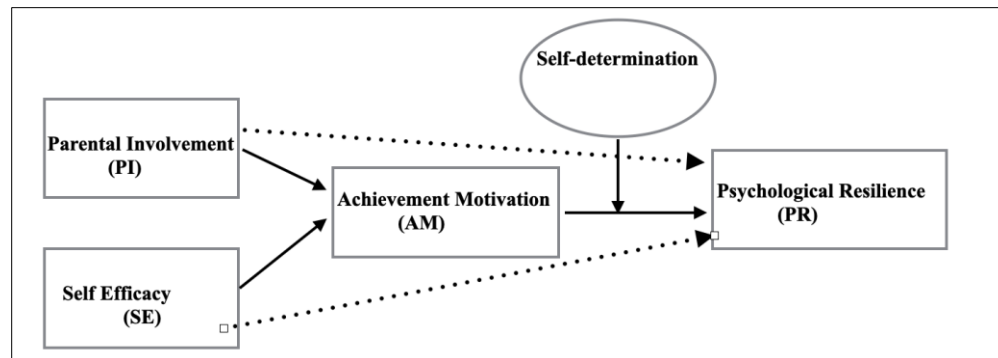


Figure 1: Research Model

Impact of parental involvement on psychological resilience

Psychological resilience assists to create mechanisms for guarding against those experiences that are not pleasant, creating a fuss in daily conduct of life (Koni et al., 2019). This could be helpful to nurture personality of adolescent (Harvey & Delfabbro, 2004). Graber proved that this resilience can thus only be created when parent's confidence and trust would be there (Graber et al., 2015). Parent's involvement has been propositioned as one of the main factors for ensuring psychological resilience, some researchers also claims the major three benefits of parental involvement other than psychological resilience (Hartmann et al., 2022). These benefits are; Higher academic performance, Better school-to-parent communication and positive school culture (McKenna et al., 2022). Psychological resilience is thus created through parental involvement as it has extreme merits for both parent and child, children can build a positive attitude (Hoşgör & Yaman, 2022) in terms of progress and learning further in their academic journey while parents have a chance to further informed about what their child is learning, build strong relationship with teachers and stronger connection with their parents too (Hoşgör & Yaman, 2022). This overall conduct would increase their children confidence and trust about their parents and their ability to cope stress and deal with crisis or other issues increases (Smeeth et al., 2021) .

Parental involvement as stated by many researcher (Zhang et al., 2022) not only enhances academic performances of students but also make them emotionally and mentally strong so by researcher (O'Connor Bones et al., 2022) in case when crisis or any other sort of issue arises children has confidence of their parents which helps them to react more sensibly (Salvatierra & Cabello, 2022). This would eventually bring them back to post crisis state and make them stable faster (Chugo et al., 2022). The resilience thus build made them to fight whatever disturbs and cost them their peace of mind (Zeng et al., 2022). Researches has shown that this resilience is built through that confidence which is given by the parents to their children (Chow et al., 2022). The academic performance said by Hossain and other famous researchers is improved and enhanced and student's attitudes and behaviors are improved (Hossain et al., 2022). A parent's interest said (Elvy, 2022) towards student's education and other activities can affect the student attitude towards issues arising in academic environment, absenteeism and other crisis which student has to face (Ben Youssef et al., 2022).

Researchers (Fan & Chen, 2001) argue that parental involvement in Child's life nurtures his mental growth and strong mental resilience against crisis or issues that a person encounters (Smith-Adcock et al., 2019). It thus ensures strong relation of involving in matters and daily affairs of children to effect mental and emotional state in a long period. Parents when make connections and stay affiliated with their children built strong resilience towards their children, moreover other argues that maintaining an open communication and teaching of self-care, loving yourself first all collectively enables children to maintain resilience.

H1: Parental Involvement has a significant impact on Psychological Resilience

Impact of Self-Efficacy on Psychological Resilience

Self-efficacy is observed as a strong determinant in explaining the concept of resilience. As the central purpose of this study is to investigate the relation between self-efficacy and psychological resilience, the study is supported by many existing theoretical underpinnings. The development of self-efficacy is important as the resilience is not possible without self-efficacy. The ability of the individual to rely on his guts in case of crisis helps him to overcome the hardships and confront the challenging situations (Aydogdu, Halil, & CELIK, 2017). It is evident from the existing studies that the individuals who adopt positive strategies in case of crisis have strong self-efficacy. The people with the higher resilience in result perceived themselves more capable of solving the

problems than others. The study of Sagone and De Caroli (2016) also highlights the relation between psychological resilience and adolescent self-efficacy.

It has been found through different researches that adolescents with some sort of learning difficulties are expected to have high rates of developing any mental condition and certain behavioral problems. Ecological systems theory provides a roadmap for researchers to believe that a person's development is affected in their surrounding environment by almost everything. This is because the learning disabilities are the reason for the decline in the self-esteem of an individual which may be considered as the core cause of developing depression in a very young age. Along with the depression, the adolescents may also suffer from substance abuse or addiction or other related mental health issues. Following are some of the reasons that may result in the development of some related teenage challenges and along with declining the self-esteem.

It has been proved in much research that the adolescents are the exact target period for majority of the psychological, cognitive and the physical changes. During such a period, adolescents have indulged in psychosocial and cognitive changes. Tumultuous students during such times are found to cope better than the students and adolescents, facing some sort of life stressing problems. Such adolescents are known as resilient. Certain protective factors help in determining the resilience degree and those factors may include self-efficacy social support sense. The adolescent's motivation is considered to be positively influenced by the strong belonging sense. All the considered protective factors are thought to positively impact while considering the high degree of self-efficacy. Analysts describes adolescence as a period in which the individual goes through multiple emotional social and cognitive changes (Foulkes & Blakemore, 2018). psychological resilience as an ability to mentally or emotionally cope up with the critical difficult conditions and then then returning to the normal conditions as soon as possible so certain ways to improve the LD conditions are also discussed and these factors include the parental involvement and the self-efficacy of the parents as well as the adolescent. It is also described that improving personal assets and an effort to protect oneself from negative stressors is the shortest definition of psychological resilience. The studies also identify the future research avenues including the strategies and policies and further exploitation for ensuring the adopted strengths-based approach (Jach et al., 2018).

H2: Self Efficacy has a significant impact on Psychological Resilience**Achievement motivation and Psychological Resilience**

Achievement motivation is the extent to which a person desires to achieve something, excel at some points in his life, and succeed. Some researchers argue that this term may use as a need for achievement (Desmet & Pereira, 2022), or the desire to overcome hurdles and master the difficulties a person encounters in life. Brunstein and Heckhausen (2018) believe that achievement motivation created a stronger association between a person having extreme self-efficacy (an individual's faith in their capacity and ability to implement behaviors crucial to form or achieve specific results) and psychological resilience. Resilience thus not only could be created from self-efficacy or parental involvement but also need to identify the motivation level a person has. That motivation level tends to be resilient in the long run because it makes a person emotionally strong (Resnick, 2018). Psychological resilience is not always dependent on desire or motivation (Labrague, 2021) to achieve something, instead it also entails emotional strength and satisfaction or happiness around surroundings. This plays a huge role in assessing resilience (Smeeth et al., 2021). A study in Denmark explained about introverts and extroverts who are different in terms of resilience (Jiao et al., 2022) argues that people who socialize or meet people often or in other words are more emotionally strong than those who are extrovert meet and greet adolescent or develop social circle are tend to be more emotionally strong or create resilience around. Motivation is a second priority after resilience (Falk et al., 2022). It demonstrate that being motivated to achieve success or strive to gain results from targeted task is not essential to gain resilience but other factors also included (Heise et al., 2022).

H3: Achievement motivation has a significant impact on Psychological Resilience**Mediation of Achievement motivation**

Many researchers have defined self-efficacy as an ability of individuals to deal with various issues related to internal or external environment (Maddux & Gosselin, 2012). Researchers further elaborates that the judgement of an adolescent and his faiths or beliefs about their own skills and capabilities greatly impact their conduct, behaviors, dimensions, views, and measurements (Kulakow, 2020). Thus, efficacy is the faith in one's ability to achieve something. Achievement motivation thus plays a great role in mediating the connection between self-efficacy and psychological resilience (Raymond, 2022). As adolescent with lower self-efficacy and lower

confidence in abilities if motivated greatly and on a high level to achieve something and stay optimistic to gain rewards for efforts he is exerting to achieve his goal (Dudones, 2022) would make him psychologically more strong and brave towards marinating and creation of psychological resilience. A study by (Xu et al., 2022) conducted a study where he discusses that there is a little or no impact of motivation to create resilience with the help of self-efficacy (Park et al., 2022). Western approaches (Zhai, 2022) by proved that there institutes have monthly session about achievement enthusiasm so that the audience (adolescent) would know what part motivation can play in their life to make them emotionally brave and so strong to cope uncertainty (Ahir et al., 2022). Daniel and Armstrong conducted a two variation study where group of two adolescent were observed, one having high self-efficacy and the other having low self-efficacy, he concluded two different result for both groups (Pertwee et al., 2022) as in higher productive and confident adolescent were more emotionally strong where factors of resilience was observed and so was the case of lower self-efficacy where productivity was not much higher due to lack of confidence (Dowley & Rice, 2022). Motivation to achieve something plays a great role in this whole concept as a person motivated to excel knows that failure is a part of life. There is nothing wrong in accepting failures (Polonyi et al., 2021); thus, such people come back even stronger and are defeated again and again by failures.

H4: Achievement motivation mediates the relation between self-efficacy and psychological resilience.

Candido et al. (2022) elaborated the connection of unnecessary parental involvement and its impact on resilience. As adolescent and the times of adolescent an adolescent goes through various phases of life (Alashwali & Alashwali, 2022) but sometimes more parental involvement which is unnecessary, unneeded and not required may create huge issue and distant problems between kids and their parents as they grow up they realize the meaning of privacy or some unsaid behaviors which they don't feel comfortable to share (Alashwali & Alashwali, 2022). In such scenarios when they are forcefully asked about something repeatedly or they tend to behave in a way which is against the expectations of parents creates a hustle and disturbance in their relation (Myende & Nhlumayo, 2022). Researchers argues that in such scenarios other than motivation, positive parental involvement is needed to protect one from the evils that are created through its excessiveness (Tambunan et al., 2022).

Limited parental involvement by researchers has been observed a positive and consistent relationship among parents and children (Carter et al., 2022). This refers to involvement in their adolescent education and outcomes of adolescent in terms of studies (Piehler et al., 2022). Many researchers have also observed lower dropouts of adolescent from school where parents indulge in activities regarding the tests (Rohacek et al., 2022), exams, assignments or other assigned tasks. Higher scores on standardized test have been seen by many scholars where parents were involved (Studer, 2021), better attendance records have been observed, higher aspirations and greater positive attitudes have been observed by many researchers where parents are involved (Weiser et al., 2022). Parental involvement also creates a sense of achievement to get more and more and motivated to excel and achieve more. Abatay (2019) Said that the more parents are involved in education of adolescent, the better would be the motivation of the entire classroom. Encourage parent involvement is key to evaluating adolescent resilience (Prasetyo & Umami, 2020). Being excessively involved in adolescent matters leads to stepping into those that an adolescent could handle. Sometimes, situations arise where adolescents can handle their matters greatly if parents leave them to them.

Motivation increases if parents provide support and assistance to their adolescent (Waytz et al., 2010), their need to excel and achieve more in various fields of life also increases because they have basic support of their family with them (Breines & Chen, 2012) aspiration to inspire more and gain greater reward is another factor in increasing resilience. Achievement thus increases when parents are involved in matters of their adolescent (Touré-Tillery & Fishbach, 2018), a want and urge to strive more, achieve more and perform more increases. There is also a great importance of failure case in this state because having parents' confidence makes the adolescent take failure and accept it as a part of life. Failure does not matter to such adolescent when they know they have a huge complete sustenance of their families (Ditta et al., 2020).

Parents' involvement creates frustration sometimes as it is unwanted or unneeded to some points where sharing is not crucial, or adolescents do not want everything exposed. There limited parental involvement (Chindanya, 2011) is needed where it is essential to understand that adolescents are sometimes reluctant or hesitant to enlighten the parents with every little detail. Some matters they do not want to share should be kept private (Hall, 2012) he further argued that their peace of mind would be disturbed otherwise when parents exerts un wanted control upon the children thus enabling them to be dependent on them for all the major and minor aspects that need attention and

solutions. Parental involvement creates greater motivation and sense of achievement in adolescents, generating psychological resilience over a longer period (Radzi et al., 2010). Western practice of parents involve privacy where no one is family oriented, rather than that people are more career or work oriented their time to pamper child is spent on work or career jobs. So there is a greater level of psychological resilience as compared to eastern practices where parents keep on poking nose in adolescent matter (Kesselring et al., 2012), which is not adored by them most of the times. (Haddoud et al., 2022) states that helping the adolescent to understand, manage and identify strong emotions is also a key factor in developing resilience in them. (Ntounis et al., 2022) Moreover, motivation achievement is built when parents encourage adolescent to be independent in their childhood and link achievement (Fan et al., 2022) with the adolescent's ability and efforts that he is exerting in various fields of life. Concluded that the right amount of parent involvement is a crucial yet important concept of gaining psychological resilience as far as the adolescent is motivated and excelled to strive more, put all those efforts that he can to gain more and achieve more. As a result, resilience is developed among them (Cimellaro et al., 2022).

H5: Achievement motivation mediates the relationship between parental involvement and psychological resilience.

Moderation of Self-determination

Researches has shown that the parents should be involve in academic activities of children or a participation by parents regularly, reciprocal and meaningful communication involving students, academic learning and other activities in school (Fan & Chen, 2001). It also entails ensuring that parents play a crucial role in their children learning. Their strong involvement in all the activities of their children ensures greater psychological resilience where their children would be more greatly able to cope emotionally and mentally with a crisis or to return to post-crisis situation.

Evidence proved the important and strong link between self-efficacy and psychological resilience. As psychological resilience refers to the emotional strong person coping with stress, self-efficacy supports increased psychological resilience (Fletcher & Sarkar, 2013). As it refers to an individual faith in their ability to implement and execute behaviors crucial to produce results related to any performance.

Being motivated, driven, stimulated, and inspired by accomplishments or successes creates a stronger relation between self-efficacy and psychological resilience. As self-efficacy increases the

faith and self-determination in a person, (Maehr, 1974) Achievement motivation thus strongly mediates the relation of self-determination, faith in ability and resilience related to psychology. Because psychological resilience, as stated by Streck and Nishan, strengthens the protective layers that a person builds emotionally to protect himself from any emotional danger or hurt caused (Streck et al., 2022).

The relation between parental involvement and psychological resilience is mediated through achievement motivation (Hsieh & Yu, 2022). It thus supported the idea that when motivation to achieve something is there, parental involvement would create a stronger impact on psychological resilience because parents when involved in affairs of their children and their prospect of growth, would create a greater resilience among them mentally and emotionally.

H6: Self-determination moderates the association between achievement motivation and psychological resilience.

METHODOLOGY

The research objectives assess the target population in this research (Hair et al., 2006). The selected target population in this research was the total number of students in different high school and colleges whose learning difficulties were assessed to check the impact on psychological resilience through the study model. By a rough estimate, more than 30,000 students are studying in different educational institutes. Collecting data and required responses from the population was difficult, so the researcher derived a sample from the whole population. Adolescents who are normally between the age group of 10 to 19 years were the targeted respondents of this study. All students studying in different schools are considered as the designated sample size of this study. The reason behind choosing all the adolescents at different levels of schools that learning difficulties can easily be assessed by the adolescents of 10-19 years of age at different studying levels.

Moreover, by following the sample size recommendation of Hair Jr et al. (2016), the sample size in this model considering five constructs, $\alpha=5\%$, $R^2=0.10$, and power of 80% was calculated as $n=205$ (Table 3.1). According to Krejcie and Morgan (1970), the largest population 100000 should be a minimum sample size of 384 (Table 3.2), which China has more than 1.4 billion population and should follow this criteria. Keeping these two criteria, the final main study has a sample size of 500, which meet both requirements.

A questionnaire was used for data collection in this study. Data collection was carried out via a famous online platform Wen Juan Xing, which enjoys a huge amount of sampling nationwide. This platform is operated by one of China's most influential survey companies. The platform has 81 million users and has collected 6.4 billion questionnaires (<https://www.wjx.cn/>) (Gao et al., 2021). The advantages of using this official dataset are the reduction of sample homogeneity and guaranteeing quality responses, since Wen Juanxing has quality control measures to exclude invalid responses. The online questionnaire will remain active until reasonable responses are obtained (suggested duration is one month).

The questionnaire has been designed using the five-point likert scale where 1 means Strongly Disagree and 5 means Strongly Agree and so does the numbers 2, 3 and 4 has neutral, agree, disagree and so on. For parental involvement t scale by (Lee, S,H 2012) has been adapted. For self-efficacy 10 item were added from (David Heyne, Nicole Myerson 1998). For achievement motivation 10 items questionnaire has been adopted by (J.W.B Land & S.fries 1999). For psychological resilience 6 items questions have been designed adopted from (Agnes, M.(Ed).2005). Questions examined the degree of healing an individual has after facing hardships and troubles in life and the researcher thus analyzed how psychological resilience is built among people.

The software of SPSS and Smart PLS were used in this research for inferential and descriptive statistics respectively. The researcher has followed research ethics and moral values which are the core principles of courtesy that provide a guideline to any researcher while reporting and conducting the research without any intention of deception or harming the participants of the study conducted (Sharpe & Ziemer, 2022).

RESULTS AND ANALYSIS

The demographic analysis indicated that a total of 555 (100%) respondents participated in this study. 211 of these respondents were male, contributing a percentage of 38% while 344 were female, representing a percentage of 62%. As far as the age was concerned a large number of respondents i.e. 353 respondents, were from the age group of 14 to 17 years, presenting a percentage of 63.6% while 176 respondents were 10 to 13 years old, presenting a percentage of 31.7% and 26 respondents were less than 10 years old, presenting a percentage of 4.7%. It has

been observed that 137 (24.7%) respondents were from grade 12 while 106 (19.1%) were from grade 13. 65 (11.7%) of the respondents were from grade 8, 81 (14.6%) were from grade 9, 70 (12.6%) were from grade 10 and 46 (8.3%) were from grade 11. In the context of the region, 330 of the respondents were from the urban region, representing 59.5% while 225 respondents were from a rural region with a percentage of 40.5%.

Table 1 shows the descriptive statistics of all variables under study including, parental involvement, self-efficacy, achievement motivation, self-determination, and psychological resilience. It has been observed that the minimum value for each construct was 1 while the maximum value for each construct was 5. Self-efficacy had the highest value of mean (3.87) with a standard deviation of .61550 followed by self-determination which had a mean value of 3.85 with a standard deviation of .63217. However, the mean value for parental involvement was 3.48 with a standard deviation of .733, achievement motivation had a mean value of 3.67 with a standard deviation of .6101 and psychological resilience had a mean value of 3.37 with a standard deviation of .667.

Table 1: *Descriptive statistics*

	N	Minimum	Maximum	Mean	Std. Deviation
PI	555	1.00	5.00	3.4861	.73301
SE	555	1.00	5.00	3.8749	.61550
AM	555	1.00	5.00	3.6755	.61018
SD	555	1.00	5.00	3.8541	.63217
PR	555	1.00	5.00	3.3790	.66758
Valid N (listwise)	555				

For any statistical study, a normality test is stated to be vital as it helps to ensure the equal distribution of collected data (Mishra et al., 2019). Most commonly used methods for measurement of normality are Skewness and Kurtosis method. As stated by Bishara et al. (2018), the Skewness values for all variables must range between +1 and -1 and kurtosis values range from 1 to infinity. Table 2 shows that skewness ranged from .490 to -.656 while kurtosis ranged from .801 to 2.113.

This shows the normal distribution between the collected data for all variables under study. Thus, it has been observed that all items of the variables were distributed normally.

Table 2: *Normality test*

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
PI	555	-.469	.104	.801	.207
SE	555	-.656	.104	2.113	.207
AM	555	-.078	.104	1.168	.207
SD	555	-.325	.104	1.196	.207
PR	555	.490	.104	1.001	.207
Valid N (listwise)	555				

CMV (Common method variance) or common-methods bias (CMB) is essential to be tested to ensure that the collected data is credible, and no bias is observed. Aguirre-Urreta and Hu (2019) accepted the value of variance to be 33.1% which is lower than 40% to ensure the credibility of collected data. Therefore, the present study, table 3 shows the tests of CMV for this study. It has been observed that the % of the variance was 33.31% and the cumulative % was 33.3% which was less than 50% so no bias was observed in the collected statistical data. This test ensured that CMV does not have any impact on the findings of the current study, ensuring the integrity of the obtained results.

Table 3: *Common method variance (CMV)*

Extraction Sums of Squared Loadings		
Total	% of Variance	Cumulative %
15.323	33.311	33.311

Figure 2 shows the measurement model of this study. A standardized pathway has been observed in this model. It represents two independent variables which include parental involvement and self-efficacy, one dependent variable i.e. psychological resilience and one mediating variable i.e. achievement motivation. However, one moderating variable is also observed between AM and PR which is stated as self-determination.

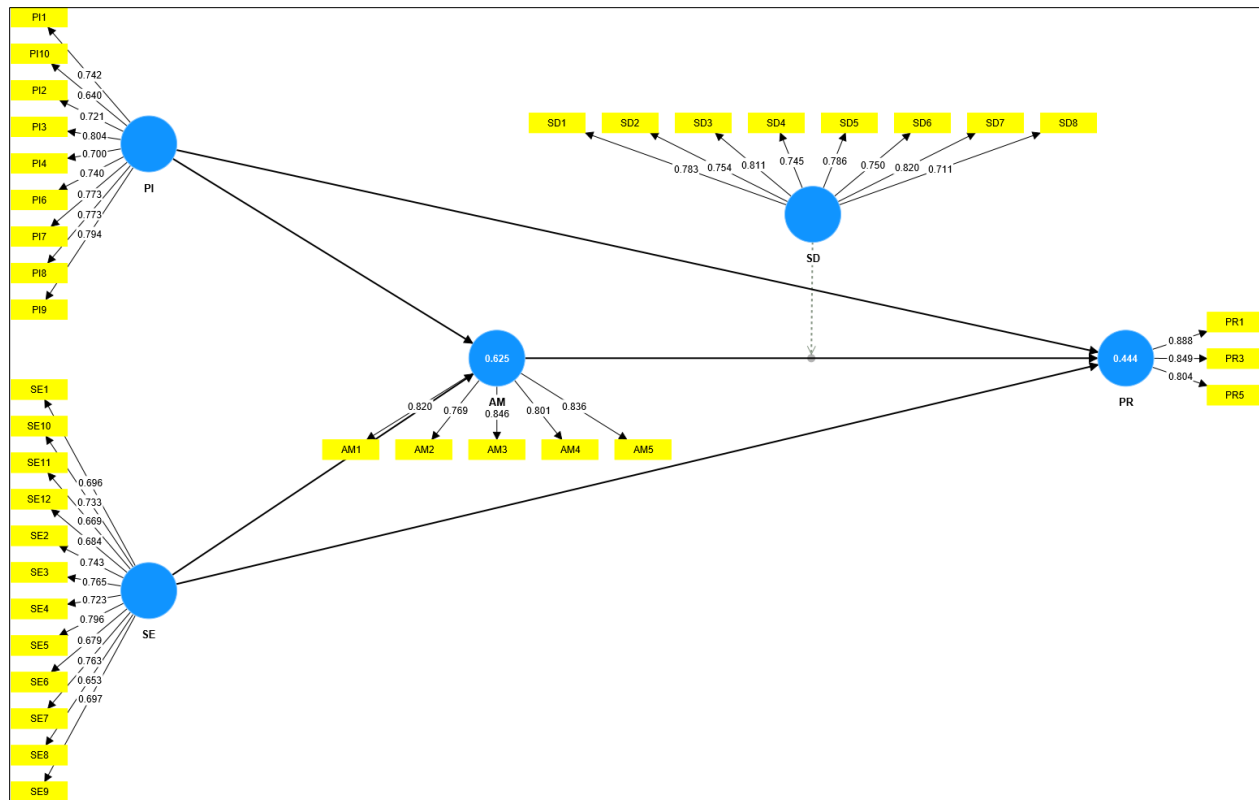


Figure 2: Assessment of measurement model

Cronbach Alpha (α) is used for measuring the reliability of the variables. Past studies (Hair et al., 2011) have stated that the value of α , must be greater than 0.7 to ensure the reliability of the variables. Table 4.6 shows that the value of α and composite reliability index was greater than 0.7 (cut-off value) for all variables. This shows the reliability of the model under study. After internal consistency, indicator reliability is measured for each variable and its measures. Its value ranges from 0 to 1 with a cut-off value of 0.6 (Kamis et al., 2020). Table 4 shows that few constructs were not able to fulfil the proposed standards of outer loading and they were dropped. Convergent validity is used to determine the closeness of a test in association with other tests that determines the same constructs. Average Variance Extracted (AVE) is used to measure convergent validity.

According to Hanafiah (2020), the value of AVE must be greater than 0.50 to ensure the validity of the data. Table 4 shows that indicator reliability for each item was greater than the standard value i.e., 0.6, Cronbach's alpha for each variable was greater than 0.8 and composite reliability was also greater than 0.7 for each variable. Moreover, AVE for each variable was greater than the standard value, that is 0.5. This ensures the validity and reliability of the collected data.

Table 4: *Measurement model assessment*

Variables	Items	Indicator reliability	Internal Consistency			Convergent validity
		Outer loadings (> 0.6)	Cronbach's Alpha (>0.7)	rho_A (>0.8)	Composite Reliability (>0.7)	Average Variance Extracted (AVE) (>0.50)
AM	AM1	0.820	0.873	0.875	0.908	0.664
	AM2	0.769				
	AM3	0.846				
	AM4	0.801				
	AM5	0.836				
PI	PI1	0.742	0.899	0.905	0.918	0.554
	PI10	0.640				
	PI2	0.721				
	PI3	0.804				
	PI4	0.700				
	PI6	0.740				
	PI7	0.773				
	PI8	0.773				
	PI9	0.794				
PR	PR1	0.888	0.804	0.819	0.884	0.719

	PR3	0.849				
	PR5	0.804				
SD	SD1	0.783	0.902	0.906	0.921	0.594
	SD2	0.754				
	SD3	0.811				
	SD4	0.745				
	SD5	0.786				
	SD6	0.750				
	SD7	0.820				
	SD8	0.711				
SE	SE1	0.696	0.914	0.917	0.927	0.515
	SE10	0.733				
	SE11	0.669				
	SE12	0.684				
	SE2	0.743				
	SE3	0.765				
	SE4	0.723				
	SE5	0.796				
	SE6	0.679				
	SE7	0.763				
	SE8	0.653				
	SE9	0.697				

Discriminant validity specifically measures that the constructs that theoretically should not be associated with each other are in fact unrelated (Zaiğ & Berteau, 2011). Table 5 shows the results of discriminant validity through the adopted approach of Formell-Larcker.

Table 5: Correlation of latent variables and discriminant validity (Formell-Larcker)

	AM	PI	PR	SD	SE
AM	0.815				
PI	0.489	0.744			
PR	0.556	0.488	0.848		
SD	0.820	0.507	0.637	0.771	
SE	0.789	0.562	0.554	0.785	0.718

AM= Achievement Motivation, PR= Psychological Resilience, PI= Parental involvement, SD= Self-determination, SE= Self-efficacy

Table 6 below shows that all the values of the HTMT ratio are lesser than 1 (Rönkkö & Cho, 2022) confirming the fulfillment of discriminant validity.

Table 6: Correlation of latent constructs and discriminant validity (HTMT method)

	AM	PI	PR	SD	SE
AM					
PI	0.544				
PR	0.655	0.570			
SD	0.924	0.554	0.737		
SE	0.879	0.611	0.630	0.861	

AM= Achievement Motivation, PR= Psychological Resilience, PI= Parental involvement, SD= Self-determination, SE= Self-efficacy

According to the results achievement motivation insignificantly impacts the psychological resilience. The p-value for this relationship is 0.610 which is greater than the threshold range of 0.05. The t-statistic for this relationship is 0.510. The hypothesized path has been resulted to be insignificant. The second assessment of the parental involvement with achievement motivation has also resulted to be insignificant. The p-value for this hypothesis is 0.114 which is greater than the

threshold defined for probability value i.e. 0.05. Therefore, the second association has been rejected. The third impact of parental involvement and psychological resilience has resulted to be significant. The p-value for this relationship is 0.000 which meets the threshold criteria to be accepted therefore the significant association among these constructs has been indicated.

Table 7: *Results of Path analysis*

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
AM -> PR	0.041	0.032	0.081	0.510	0.610
PI -> AM	0.066	0.068	0.042	1.583	0.114
PI -> PR	0.211	0.213	0.055	3.857	0.000
SD -> PR	0.470	0.471	0.073	6.407	0.000
SE -> AM	0.751	0.752	0.038	19.713	0.000
SE -> PR	0.036	0.044	0.075	0.478	0.633
SD x AM -> PR	0.009	0.011	0.018	0.533	0.594

AM= Achievement Motivation, PR= Psychological Resilience, PI= Parental involvement, SD= Self-determination, SE= Self-efficacy

The fourth association is between self-determination and psychological resilience against which the resulted value of probability is less than 0.05 i.e. 0.000. So, the concerned association between the SD and PR has also been accepted. The fifth association between self-efficacy and achievement motivation has been accepted. The p-value for this relationship is 0.000 which corresponds to the significant acceptance of this hypothesis. The next direct impact of self-efficacy and psychological resilience has been resulted to be insignificant. The p-value for this relationship is 0.633 which indicates the rejection of this relationship.

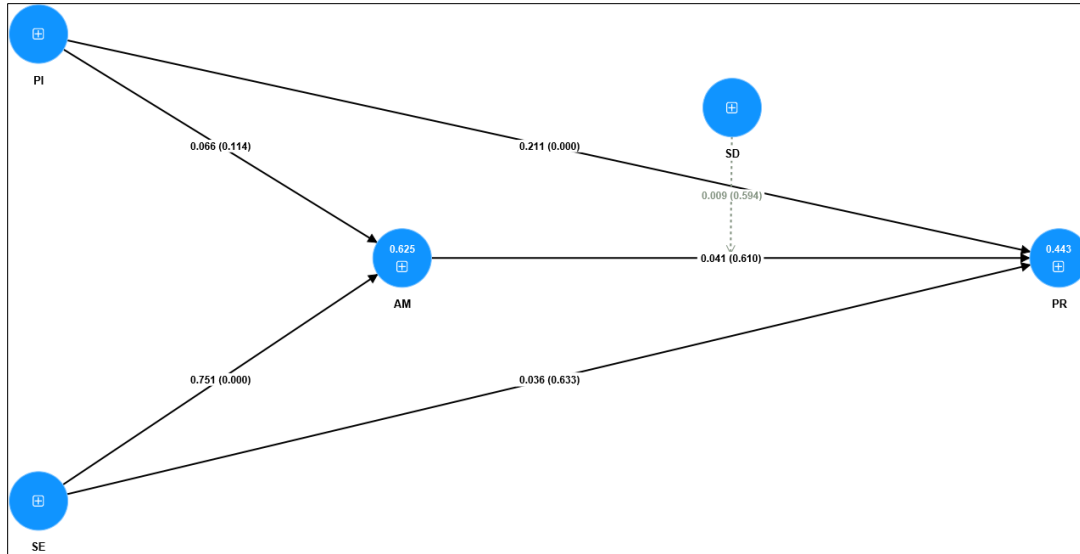


Figure 3: Structural equation modelling

The figure of moderation illustrated through the graphical representation below also illustrates an insignificant moderation. The two lines not intersecting or are not even projected to intersect each other in a coming way. Therefore, the results have declared that SD insignificantly moderates the relationship between AM and PR.

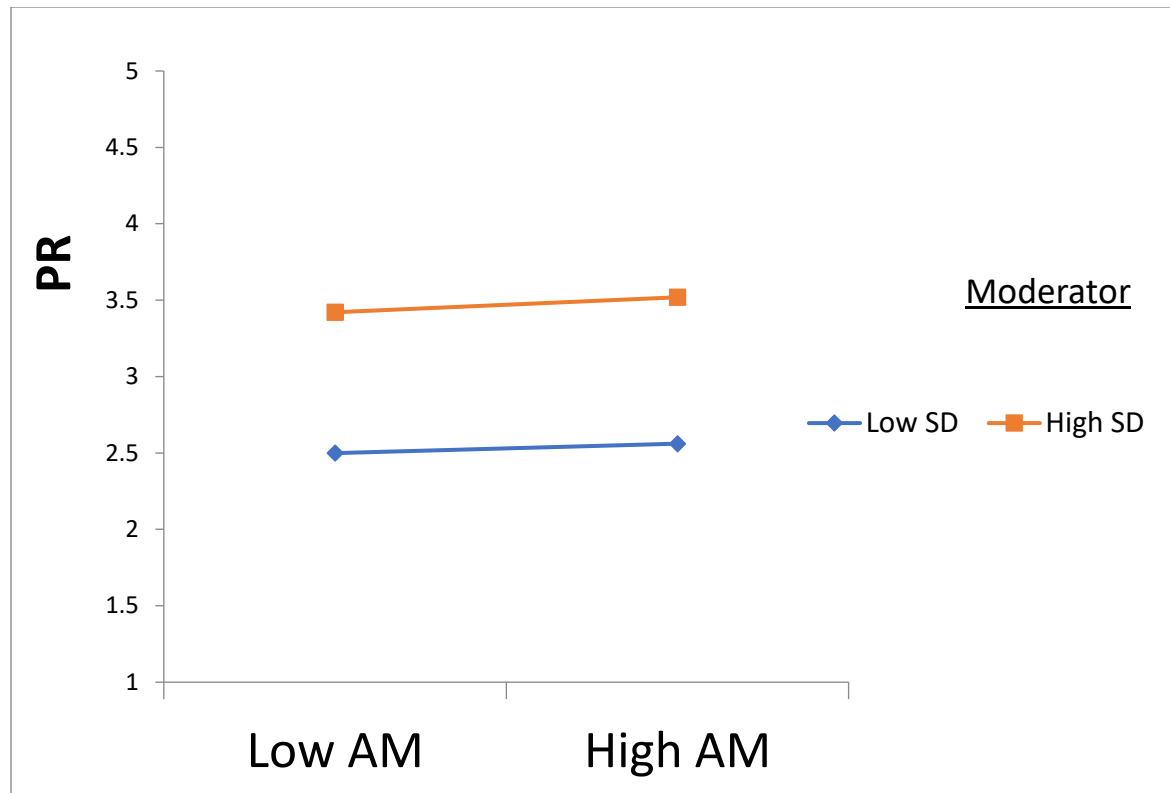


Figure 4: Moderation of SD between AM and PR

The mediating variable can be undertaken as a path or an indirect way through which an independent variable can influence the dependent variable (Mackinnon, 2015; MacKinnon, 1994). The table explains the results of the mediation of AM between the IVs and DV. The first row of the following table 4.19 highlights that achievement motivation insignificantly mediates the relationship between self-efficacy and psychological resilience. The resulting p-value for this relationship is greater than the defined threshold range i.e. 0.05. So the hypothesis has been rejected. The second mediation of achievement motivation between parental involvement and psychological resilience has been resulted to be insignificant because again the AM insignificantly mediates the relationship between PI and PR. The value of probability for this relationship is 0.684 which declares the rejection of this hypothesis. Therefore, it can be concluded that both the mediations have been resulted to be insignificant.

Table 8: Mediation effect

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
SE -> AM -> PR	0.031	0.024	0.061	0.510	0.610
PI -> AM -> PR	0.003	0.002	0.007	0.407	0.684

AM= Achievement Motivation, PR= Psychological Resilience, PI= Parental involvement, SD= Self-determination, SE= Self-efficacy

DISCUSSION

Discussion of key findings

The primary purpose of this study was to examine how adult people can develop self-efficacy and psychological resilience by involving their parents in the process in order to add the quality of independence to each person's personality. With the support of parental engagement, this study was specifically undertaken to determine the mediating effect of achievement motivation in the development of self-efficacy and psychological resilience in adolescents. The first hypothesis was "Parental Involvement significantly impacts Psychological Resilience". According to the current study's findings, PI significantly impacts psychological resilience, thus accepting the hypothesis. The current study's findings are supported by the studies proposed by Kovács et al. (2022) and Surum et al. (2022). According to their findings, In particular, a collaborative effort between the parents, educators, and experts involved with the procedure can contribute substantially to the child's psychological, sentimental, and learning outcomes, regardless of whether the primary objective is to construct upon resilience as a character trait or focus its growth as a result.

The second hypothesis was "Self-Efficacy has a significant impact on Psychological Resilience". The current study's findings revealed that Self Efficacy has no significant impact on Psychological Resilience, thus rejecting the hypothesis. These findings are supported by Djourova et al. (2020). According to them, self-efficacy promotes well-being via intellectual, psychological, and emotional mechanisms and creates mindsets and behaviours that can enhance both psychological and physical wellness. Self-efficacy and resilience are closely linked since they both refer to strong

personality traits and have one common feature: the capacity to persist amid hardship. These are separate, independent psychological capabilities as well. Self-efficacy endurance relates to accomplishing tasks, whereas resilience denotes the capacity to adjust to circumstances and overcome obstacles. Huang et al. (2021) stated that Self-efficacy and psychological health are significantly correlated.

The study has developed its third hypothesis: "*Achievement motivation has a significant impact on Psychological Resilience*". According to the results, it was found that achievement motivation insignificantly impacts psychological resilience in the current study. The hypothesized path has been resulted to be insignificant, so it was rejected. As the sample size is smaller and younger, it's possible that they weren't able to understand the underlying idea and context of the current study, which is one of the reasons this hypothesis was rejected. Magnano et al. (2016) suggested that psychological capital (positive psychological state of development) is positively associated with achievement motivation and psychological resilience. Those with high Psychological capital tend to be more tenacious, put in more effort, expect success, overcome barriers more skillfully, and recover from failures more quickly. Luthans et al. (2021) believe that motivation is the process that activates, inspires, guides, and sustains behaviour and performance.

The fourth and fifth hypotheses tested the mediation effects of achievement motivation between parental involvement, self-efficacy, and psychological resilience. The results from the statistical testing indicated that both mediation effects had been rejected. One of the reasons for the rejection of these hypotheses could be that the sample size is younger and much more limited, they might not be able to comprehend the underlying concept and context of the present study, so the achievement motivation does not significantly mediate the association between self-efficacy and psychological resilience.

The sixth hypothesis of the study proposed a moderating effect of self-determination between achievement motivation and psychological resilience. The findings indicated an insignificant moderation of self-determination between achievement motivation and psychological resilience in the current study. The proposed hypothesis was rejected because the results showed it to be insignificant. One of the reasons this hypothesis was rejected was because of the smaller and younger sample size, which raises the possibility that they won't be able to comprehend the fundamental idea and context of the current study. According to (Ryan et al., 2019), the

significance of utilizing comprehensive theories such as self-determination to organize the intricate research findings concerning motivation, personality development, and wellness across various levels of analysis.

CONCLUSION

The current study was conducted to find the impact of parental involvement and self-efficacy on the psychological resilience of Chinese adolescents with learning difficulties, with a focus on the mediating role of achievement motivation and the moderating role of self-determination. Adolescents in China face more academic difficulties than their counterparts in the region, the current issue demands the attention of contemporary researchers. Individual factors, in addition to parental factors, are very important in managing and overcoming learning difficulties. Being self-assured is essential for dealing with challenges and issues in both academic and non-academic contexts (Ardi et al., 2019).

The findings imply that parental involvement, but not self-efficacy, significantly impacts psychological resilience. Additionally, it was discovered that parental involvement, self-efficacy, and psychological resilience are all mediated by achievement motivation. However, psychological resilience was found to be unlikely to be affected by achievement motivation, and there was no significant correlation between achievement motivation and self-determination. Teenagers' psychological development must be supported by giving them control over their lives. While the importance of involving adults in decisions that affect their lives is acknowledged, it is unclear how much this involvement helps adolescents develop resilience and self-efficacy. Although individuals frequently avoid many adolescent challenges, full integration into contemporary society during adolescence is necessary to meet the varied and expanding demands of global competition. This enables a more effective transition into adulthood (Haddoud et al., 2022). In conclusion, parental involvement is essential in promoting psychological resilience among Chinese adolescents with learning difficulties. This finding emphasizes how crucial parental involvement and support are for the education and well-being of children with learning difficulties. The research suggests that the relationship between parental involvement, self-efficacy, and psychological resilience is mediated by achievement motivation. However, motivation for achievement does not significantly affect psychological resilience by itself. In the study's analysis

of the correlation between achievement motivation and psychological resilience, self-determination was not found to be significantly moderated in any way.

IMPLICATIONS OF THE STUDY

The findings of the study contribute notable theoretical, practical, social, and policy-related implications. In the theoretical context, this study provides a significant contribution to academic counsellors, college counsellors, psychologists, and relevant scholars. By doing so, this study contributed remarkable information to the existing body of knowledge about the levels of psychological resilience in adolescents who face multiple learning difficulties. In order to extend the literature on determinants of LDs, this study first identifies the gap in the existing literature. The thorough review of the literature has led the relevant researcher to believe that various factors like school environment and teaching style are significantly responsible for triggering adolescent learning difficulties. This study extends the theoretical perspectives of existing literature by considering the personal and social factors to analyze psychological resilience, which includes parental role and self-efficacy that is neglected by previous studies. The available data lacks the proper knowledge to deal with the psychological resilience of adolescents with LD in the context of China. Accordingly, this study highlights the importance of it and opens up the paths for future researchers to explore these issues more so the problem of learning difficulties for Chinese adolescents can be dealt with.

The findings of the study also provide numerous practical contributions for parents, educators' councilors, college teachers, policymakers, and psychologists. Educators' councilors can utilize the results of this study to understand the possible factors that hinder students' effective learning capability. The relevant findings help them identify the areas that require their additional support to influence resilience and tackle the learning disabilities of adolescents. From the instruction point of view, the relevant findings of this research have notable potential to be incorporated into education counselling through adequate resources and proper development of self-efficacy and achievement motivation. Furthermore, the relevant findings provide significant implications for parents as well. Numerous existing studies highlight that a collaborative effort of parents with experts can enhance a child's psychological outcomes and empowers his learning capabilities (Benner et al., 2016; Liu et al., 2022). Thus, parents' involvement boosts their kids' psychological resilience and helps them cope with difficulties in learning. Furthermore, the

findings of this study provide significant implications for psychologists and therapists as well who are dealing with cases of LDs in adolescents. The study found that psychological resilience is strongly linked with the learning difficulties of adolescents; thus, the relevant findings help therapists better understand the situation and factors which are hindering the resilience and learning capabilities. Last but not least, the findings of this study provide significant knowledge to policy-makers as it encourages them to enhance the funding of institutes so they can develop training programs for parents, teachers, advisors, and for students as well to cope with these difficulties.

RESEARCH LIMITATIONS

Every study has its own limitations and there are some in the current one as well. The research was based on a questionnaire survey approach, including a cross-sectional study of the research subject. The techniques used in the study limit the research to a quantitative approach, which could be extended using other methodologies on the same subject. It also confines the subject to cross-sectional analysis of the data obtained from the survey. The research has not integrated other methods of the data collection procedure. Moreover, the study is applied to China only, which shrinks the domain of applicability of the results to other countries. The study could be valid for countries having similar educational and social structures as China. That is to say, the setting of the research is limited to China and similar states only and could not be applicable in a general setting. The study has focused on social and ecological theories as the foundation of the research. There are other theories related to the psychological development of children which impact their well-being. Such theories may include the major contribution of parenting in the development process of adolescents (Estlein, 2021). The study has also lacked in providing the infants' experiences that are influenced by parenting styles of different family types. The study does not provide the contribution of other relatives in the joint system in performing some of the parenting functions (Scott & Dadds, 2009). The study confines the mediation of motivation only, which can be further extended by other variables of mediation that influence parenting in China. The most influential mediation can be seen in maternal warmth and co-parenting in China (Chen, 2020). The study also lacks the technological changes and the changes brought by covid-19. The pandemic has changed the patterns of education and parenting (Chen et al., 2020). The pandemic has impacted the minds of parents of adult children due to the covid-19 (Wu et al., 2020).

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