



Mainland Chinese Mothers' Autonomy Support Across Four Caregiving Contexts

Chang Su-Russell¹ · Jean M. Ispa²

Accepted: 31 October 2021

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Abstract

Self-determination theorists argue that parental autonomy support is a significant foundation for children's optimal development and wellbeing. However, research is scarce regarding how parents of very young children practice autonomy support, especially in non-western countries (such as mainland China). This paper describes two studies that address this gap. Both studies investigated how Chinese mothers (children's age < 7) say they would support their children's autonomy in four caregiving scenarios. Study 1 was exploratory with 20 low-income mothers of young children (age < 7) from a northeastern city in mainland China. Sensitizing concepts from self-determination theory and constant comparison guided the development of themes. In Study 2, we posed the same questions via Qualtrics and received open-ended responses from 307 Chinese mothers of preschool-aged children. Mothers' responses were again inductively coded using the constant comparison method (Corbin & Strauss, 2015); in addition, responses were assigned ratings based on expressed level of autonomy support. Maternal levels of autonomy support were compared across the four caregiving contexts. Inductive coding revealed similar autonomy supportive and autonomy restrictive strategies across samples. Autonomy support levels varied across the four caregiving contexts. Maternal education was related to levels of support for children's autonomy in the academic learning context. Maternal autonomy support levels differ by caregiving context and by mother's education. Mothers' responses allowed us to describe various autonomy supportive strategies that mothers said they would use. Sharing these strategies may help parents who are underequipped to better support young children's autonomy.

Keywords Maternal Autonomy Support · Chinese · Preschooler · Caregiving contexts

Highlights

- Chinese mothers of very young children support their children's autonomy.
- Chinese mothers' levels of autonomy support vary across caregiving contexts.
- Mothers' education is associated with varying levels of autonomy support in the academic learning context.

Self-determination theorists (SDT; Deci & Ryan, 2002) have suggested that there are universal needs in human development. Autonomy is one of the three basic psychological needs proposed as necessary for positive child development, and abundant evidence supports this contention (Chirkov & Ryan, 2001; Leks et al., 2010; Manzi et al., 2012; Matte-Gagné et al., 2015; Pedersen, 2017; Yan et al., 2017). In SDT,

autonomy refers to individuals' sense of volition, or agency that is felt when one can act according to one's own interests and values (Deci & Ryan, 2002; Whipple et al., 2011).

However, researchers have found evidence that the ways parents grant autonomy support to children differ across specific caregiving contexts and family socioeconomic conditions (Smetana, 1988). Understanding of Chinese parental autonomy support strategies across situations that mothers of very young children typically encounter remains largely understudied in the current developmental and non-western research literatures; most research in this area has focused on mothers of school-aged children or adolescents (Cheung & Pomerantz, 2011; Ng et al., 2007). In an effort to determine if and how mothers in mainland China use

✉ Chang Su-Russell
csuruss@ilstu.edu

¹ Illinois State University, Normal, IL, USA

² University of Missouri, Columbia, MO, USA

parenting strategies that support children's autonomy, and to develop insights to address measurement challenges, for Study 1 we developed four scenarios that could be used to elicit conversations about preferred parenting strategies among low-income mothers. Subsequently, we posted the same scenarios online and obtained a larger, more socio-economically diverse sample, also from mainland China. This allowed us to test for differences by caregiving contexts as well as by mother's education levels.

Self-Determination Theory

In SDT's broad framework (Deci & Ryan, 2002), three basic psychological needs - autonomy, relatedness, and competence - are identified as universal. Autonomy support is demonstrated by parents when they respect children's perspectives, acknowledge their children's feelings, give reasons and explanations for rules, and provide guidance when needed to enable children to remain actively engaged in challenging or required tasks. Promoting autonomy differs from promoting independence (Joussemet et al., 2008; Soenens et al., 2007) in that respecting autonomy does not mean letting children do all things on their own or being distant (Kagitcibasi, 2005). Providing guidance that is sensitive to children's current skill-levels, is a very important component of autonomy support, involving parental encouragement of children's exploration and problem solving with caregivers' mentorship. When parents provide scaffolded mentorship, they are providing guidance that helps children actively engage in tasks and experience agency despite the task's difficulty (Conner & Cross, 2003; Sun & Tang, 2017).

When evaluating parental childrearing strategies, it is important to note that parents' provision of structure does not always compromise children's autonomy (Grolnick & Pomerantz, 2009). If limits are set along with reasoning and acknowledgement of children's feelings, children's sense of volition is less likely to be undermined (Koestner et al., 1984). It is when limits are presented to children without any explanations or recognitions of their feelings that their sense of volition is likely to be compromised.

Parental Autonomy Support in Cultural Context

According to SDT, the benefits of autonomy are universal (Deci & Ryan, 2002). Regardless of family cultural background, autonomy supportive parenting practices are believed to facilitate children's ability to read parents' messages accurately, willingly internalize parental values, and eventually achieve an optimal integration of personal beliefs, desires, and behavior that align with societal norms

(Deci et al., 1994; Grolnick et al., 1997; Ryan & Deci, 2002). Parenting practices that demonstrate respect for children's opinions and feelings, share reasons for rules, and provide scaffolded guidance have been found to nurture children's sense of volition and contribute to their emotional well-being in collectivistic as well as individualistic societies (Cheung & Pomerantz, 2011; Joussemet et al., 2005; Lekes et al., 2010).

However, our knowledge about parent autonomy support is dominated by research that either focuses on families in North America or Europe (Chirkov & Ryan, 2001; Whipple et al., 2011), or that compares Chinese and North American families using measures that were established and validated with Western samples (Lekes et al., 2010; Liu et al., 2005; Rudy et al., 2007). Even though the benefits of autonomy support appear to be universal, the ways in which it is practiced - or not - may differ from one culture to the next. Description of the specific strategies that parents use in other parts of the world is important if we are to understand the rationales that motivate parents across the globe to achieve their socialization goals and the practices they engage in to meet them (Bornstein, 1995).

One of the earliest and most commonly proposed distinctions across cultures relates to the concepts of individualism and collectivism (Markus & Kitayama, 1991). Individualistic cultures are characterized by independent views of self, wherein there is a clear boundary between self and others, including close others. In contrast, individuals in collectivistic cultures are presumed to emphasize an interdependent self. As a result, within collectivistic cultures, trusted others (in-group members such as family members and friends) are especially likely to have strong influences on decision making. Given that in-group members' advice and modeling are likely to accord with cultural beliefs and norms about everyday activities, caregivers' concerns about children's clothing, eating behaviors, and language use generally reflect their beliefs about what is culturally appropriate (or inappropriate).

Researchers have found different levels of parental autonomy support in individualistic as compared to collectivistic cultures. While these studies speak to cultural difference in *levels* of autonomy support, we know less about cultural variation in the specific strategies parents use to support autonomy or the situations in which they think autonomy support is beneficial or harmful. Though we have acquired some knowledge of how and why parents in the Western world practice autonomy, Chinese parents may support their children's autonomy in a different fashion or with slightly different rationales.

Parenting Values, Goals, and Practices in Chinese Culture

Given their cultural beliefs, parents in Chinese culture might practice autonomy differently from their counterparts in

Western culture. Chinese parenting practices tend to be guided by both traditional values (such as Confucianism) and modern beliefs that are a result of globalization and the ubiquitous existence of social media. Confucianism is often referred to as the dominant influence on Chinese culture and parenting. Confucian values hold that cultivation is necessary to achieve five virtues or moral standards: *ren* (generosity and selflessness), *yi* (loyalty), *li* (politeness and respect), *zhi* (wisdom), and *xin* (trust). Many classics on parenting and morality that were heavily influenced by Confucianism are widely used in Chinese families and in classrooms. Examples include *Di Zi Gui* (Standards for being a Good Pupil and Child; Li, written during the Qing dynasty, 1644–1912), *Classic of Filial Piety* (400 BCE), and *Three Character Classic* (Wang, written during the Song dynasty & Ou, 1234–1324). The values of self-improvement, and filial piety along with other virtues (e.g., following rules, obedience, and hierarchy) are some of the main messages in these classics.

Self-improvement is held to be a life-long endeavor (Li, 2001). Chinese parents perceive that helping their children with self-improvement through an indigenous way – *guan* – is one of their responsibilities (Chao, 1994). Chinese parents *guan* their children by caring for their needs, cultivating their culturally appropriate behavior, and providing educational resources so that they will successfully integrate into society (Chao, 1994). *Guan* has been widely studied among Chinese immigrant families in the West (Huntsinger & Jose, 2009), but less so in mainland China until recently (Lan et al., 2019). As part of *guan*, shaming children is an important socialization process to teach children right from wrong and motivate self-improvement (Fung, 1999). As noted by Ng and colleagues (2007), Chinese mothers tend to focus on children's failures in their feedback, believing that recognizing failure can help children address their weaknesses and pursue self-improvement.

Filial piety is another important belief that is rooted in Confucianism (Dai & Dimond, 1998), which includes the values of intergenerational caring, familial and societal hierarchy and patriarchy with the endorsement of interdependent social relationships (such as bringing pride to family, or *guang yao men mei*). Obtaining educational attainment is one of the primary ways to bring glory to the family and to maintain “face” (Kim et al., 2010). Parents are told that in order to support their children's academic success, they must provide educational resources and tend to their overall physical and material well-being. The combination of collectivism and high expectations for educational attainment are likely to result in high pressure on parents, which in turn often translates to high pressure on children to learn and succeed (Chao & Tseng, 2002; Cheung & Pomerantz, 2011). As demonstrated in some studies, Chinese mothers' academic involvement, unlike that of U.S.

mothers, tends to be associated with psychological control (Cheung & Pomerantz, 2011; Ng et al., 2014).

In addition to Confucianism's influence, Chinese parents are also under the influence of globalization and westernization. As culture changes, parenting practices change (Bornstein & Cheah, 2006). Today's Chinese parents of young children may hold slightly different parenting values than caregivers in previous generations. Accordingly, changes in Chinese parenting are reflected in the changes of socialization goals. For several decades, Chinese parents have been perceived as practicing higher control over their children than European American parents (Lin & Fu, 1990). For example, there is evidence that Chinese Canadian mothers show less encouragement of toddlers' autonomy (taking initiative and exploring during free play) than their European Canadian counterparts (Liu et al., 2005). Similarly, Lokes et al. (2010) reported that U.S. and Canadian mothers were much more autonomy supportive than Chinese mothers. Along similar lines, Su and Hynie (2011) categorized Chinese parents as more authoritarian than their North American peers. On the other hand, a later study with 8th graders' parents in mainland China revealed that most had adopted an authoritative parenting style (Wang, 2014). These findings indicate that our knowledge of contemporary Chinese parenting of young children remains incomplete, especially as Chinese culture continues to evolve.

Given the combined influence from both Confucianism and globalization, we should not assume that data collected in previous decades reflects contemporary parenting values and socialization goals among young mothers. For example, it seems that the qualities Chinese parents desire in young children has shifted from valuing shyness to valuing assertiveness (Chen et al., 1992; Liu et al., 2012; Liu et al., 2020), and, among affluent families with educated parents, from valuing obedience to valuing independence (Park & Lau, 2016). Zeng and Greenfield (2015) demonstrated this change when they compared frequencies of certain words in Chinese children's books and found that words that reflected collectivistic values decreased in frequency during the period between 1970 and 2008. This change might be related to China's urbanization, along with increasing educational opportunities and income levels occurring in the context of economic reform.

When investigating Chinese parenting practices, it is important to consider both the influence of traditional values and the impact of globalization, which has, among other things, brought the ready availability of media reports on U.S. ideas about how to be good parents. Given the current mix of traditional Confucian values in conjunction with U.S. influences, it is unclear whether and how Chinese mothers practice autonomy support during everyday child-rearing events. Empirical efforts are needed to explore this question.

Autonomy Support across Caregiving Contexts in Early Childhood

According to Smetana (1988), parents may grant different degrees of autonomy in different life domains. In the current study, caregivers with young children were asked about their childrearing practices in four caregiving contexts, adding sugar to dinner, skipping lunch, playing with blocks, and reading an animal book. These predetermined scenarios helped us elicit mothers' opinions while keeping the situations constant for all participants (Barter & Renold, 1999; Finch & Mason, 1993; Schoenberg & Ravdal, 2000). Predetermined scenarios are less structured than surveys and provide for a wider range of ways to follow up on participants' responses. They also tend to elicit more natural responses (Greenstein & Davis, 2012). Scenarios about mealtime and educational activities were chosen because, according to a 2017 national report on Chinese mothers' concerns, children's health and education are mothers' top two concerns (UC Big Data Report, 2017). Moreover, in Chinese culture, mealtime is considered particularly important for socialization and cultivation of healthy eating habits (Leung et al., 2018).

Considering Maternal Education

Researchers have found that Chinese mothers from low-SES families (indicated by occupation and education) tend to be more authoritarian - more likely to discourage children's emotional expressions than parents with higher levels of education and occupations with higher social rankings (Chen et al., 1997). Higher education or social rankings might have exposed mothers to the influence of Western parenting beliefs and practices. We therefore considered the role of maternal education in mothers' levels of autonomy support.

The Current Study

The current study investigated parents' views through a scenario-based qualitative inquiry (Barter & Renold, 1999; Finch & Mason, 1993; Schoenberg & Ravdal, 2000). Given that parents' parenting practices may differ across caregiving contexts (Smetana, 1988) and levels of parental education (Chen et al., 1997) the scenarios tapped parenting practices in four caregiving contexts and responses were compared depending on mothers' educational attainment. Study 1 focused on 20 families from low-income backgrounds in mainland China, whereas Study 2 included mothers from various education backgrounds. Study 1 and Study 2 were both guided by three research questions: Do

Chinese mothers support their children's autonomy? How do mothers say they would support or restrict their young children's autonomy? How do they explain their strategies? Do mothers' levels of support and restriction of their young children's autonomy vary across four caregiving scenarios? For Study 2, an additional research question was added: Do mothers' levels of support and restriction of their young children's autonomy vary by maternal education?

Study 1 Method

Participants

The study was approved by University of Missouri Institutional Review Board (IRB). Mothers ($N = 20$) from low-income families with young children (ages 3–7 years old) were recruited from a public childcare center in a north-eastern city in mainland China. This was part of a cross-cultural study that focused on low-income families (Su-Russell, 2018). Demographic information such as mothers' education, marital status, income, employment, and number of people living together is displayed in Table 1.

Data Collection Procedure

Data collection took place virtually via WeChat. The interviews were semi-structured and conducted in Mandarin. They ranged in length from 30 to 60 min. The first author read four hypothetical scenarios involving a child-rearing dilemma and, after each, asked mothers to talk about the childrearing strategies they would use with their young children (ages 3–7) in those situations, and why. Each of the questions listed below was followed by probing questions.

Four caregiving scenarios

(1) Soup Scenario. Imagine you are at the dinner table, and your family is having noodle soup tonight. What if [Child's Name] wants to mix something sweet into the noodle soup and you don't think this would be a good idea? What would you say and do and why?

(2) Lunch Scenario. [Child's Name] does not want to eat lunch, but you are not planning to have another meal until much later in the day and suspect [Child's Name] will get hungry before then. What would you do and say and why?

(3) Blocks Scenario. You see [Child's Name] building towers with blocks with one block on top of the other, but you are thinking the tower is going to fall if it is built in [Child's Name]'s way. What would you say and do and why?

(4) Book Scenario. [Child's Name] is reading a book about animals, as [Child's Name] is reading the page about

Table 1 Participating Families' Demographic Characteristics of Study 1 ($N = 20$) and Study 2 ($N = 310$)

	Study 1	Study 2
Child Gender		
Girls	$n = 13$ (65%)	$n = 179$ (57.7%)
Boys	$n = 7$ (35%)	$n = 137$ (44.2%)
Child Age (M, SD, range)	Mean = 4.66, SD = 0.71, Range = 4–7	Mean = 3.35, SD = 0.98, Range = 2–5
Mother Age	Mean = 33.60, SD = 3.93, range = 28–46	Mean = 30.09, SD = 4.74, range = 20–54
Relationships with Child		
Biological Mother	$n = 20$ (100%)	$n = 306$ (98.7%)
Foster Mother	<i>N/A</i>	$n = 1$ (0.3%)
Others	<i>N/A</i>	$N = 3$ (1%)
Marital Status		
Married	$n = 20$ (100%)	$n = 302$ (97.4%)
Cohabiting	<i>N/A</i>	$n = 6$ (1.9%)
Single, Never Married	<i>N/A</i>	$n = 1$ (0.3%)
Others	<i>N/A</i>	$n = 1$ (0.3%)
Education		
Less than High School	$n = 3$ (15%)	$n = 6$ (1.9%)
GED or equivalent	$n = 3$ (15%)	$n = 6$ (1.9%)
Some College or Associate Degrees	$n = 5$ (25%)	$n = 30$ (9.5%)
Bachelors' Degrees	$n = 9$ (45%)	$n = 199$ (59.7%)
Master's Degrees	<i>N/A</i>	$n = 63$ (18.9%)
Doctorates	<i>N/A</i>	$n = 6$ (1.9%)
Family Income		
Refused to answer	$n = 6$ (30%)	$n = 3$ (1%)
M , SD, range	¥85666.67 (¥30930.03) ¥20,000–¥145,000 ($n = 2$, 10%) 50,001–100,000 ($n = 11$, 55%) 100,001–300,000 ($n = 2$, 10%)	¥419,116.90 (¥841,522.488) ¥5000– ¥8,900,000 0–50,000 ($n = 16$, 5.2%) 50,001–100,000 ($n = 33$, 10.6%) 100,001–300,000 ($n = 158$, 51%) 300,001–500,000 ($n = 56$, 18.1%) 500,001 and above ($n = 44$, 14.2%)

ducks, [Child's Name] makes the sound that you don't think sounds like a duck's sounds, but it sounds more like a pig. What would you say and do and why?

This scenario-based qualitative approach helped elicit in-depth responses from participants (Barter & Renold, 1999; Finch & Mason, 1993; Schoenberg & Ravidal, 2000). To

answer our research questions asking if and how Chinese mothers would support their children's autonomy and whether mothers' responses would vary by caregiving contexts, it was important to situate the scenarios in everyday childrearing contexts that commonly occur in Chinese homes with young children. Many mothers spontaneously shared that these scenarios occur in their families. Established surveys tend to tap parenting beliefs in general. Our goal to investigate specific parenting behaviors in specific situations was better served by presenting mothers with hypothetical scenarios to which they could react. These scenarios reflected everyday interactions of the "small" moments that may have strong and long-term implications for children's wellbeing and relationship with their parents (Isapa et al., 2015).

Study 1 Analysis and Results

Mothers' responses to scenarios and open-ended questions were transcribed and inductively analyzed following constant comparison strategies (Corbin & Strauss, 2015). NVivo, a software program, was used to manage the qualitative data (Gibbs, 2002). In addition, we were guided, but not limited, by sensitizing concepts from self-determination theory (Deci & Ryan, 2002; Whipple et al., 2011). In particular, during coding we attended to existing concepts about practices that reflect parental autonomy support in the western world and the limited empirical work on autonomy supportive practices used in China. We also attended to the emergence new, not a priori hypothesized, concepts that became evident during inductive analysis by both authors.

Sensitizing Concepts

Based on previous research on the operational definitions of autonomy support, a list of autonomy supportive practices that were used in the current study as sensitizing concepts follows (Blumer, 1986): (1) *Reasoning*: Mother offers reasons to the child for her limits and rules (Koestner et al., 1984). (2) *Suggestions or guidance that enables agency*: In an effort to restore or enable agency, mother offers suggestions or guidance to her child when she sees children struggle with a task to help them actively engage despite task difficulty to enable child's agency (Deci et al., 1993; Grolnick et al., 1984). (3) *Respect*: Mother shows acceptance of children's voices, listening to their ideas and opinions with a positive attitude rather than ignoring, mocking, or negating them (Grolnick et al., 1984). (4) *Shows consideration for children's feelings*: Mother acknowledges and validates the child's feelings (Koestner et al., 1984).

The first author conducted the interviews guided by a protocol that was developed by both authors. The first

author received training in qualitative methodology at the doctoral level and is fluent in both English and Mandarin Chinese. The first author also took memos each time after an interview was conducted. Memos can be used to make methodological adjustments (Hatch, 2002). The second author has extensive qualitative research experiences and checked the quality of the interview transcripts as the interviews progressed. During the coding phase, authors independently read through all transcripts and highlighted relevant text indicative of the manner and extent to which mothers said they supported or limited children's autonomy. Definitions of each code were revised as needed. Each response could receive more than one code. Guided by the constant comparison approach (Corbin & Strauss, 2015), both authors and a bilingual graduate research assistant were involved in the coding process. Codes were generated inductively and independently. Regular meetings were held for peer debriefing to discuss disagreements on coding until agreement was reached on each mother's responses to each scenario (Corbin & Strauss, 2015). The finalized coding scheme was guided by, but not limited to, the sensitizing concepts and thus evolved throughout the inductive coding process. As a result, eight mutually exclusive themes emerged and were then conceptually grouped into two higher order categories: autonomy support (codes 1 through 6), and autonomy restriction (codes 7 through 8). The final coding scheme, including categories and their prevalence (frequencies) in each scenario, is presented in Table 2.

Selection of quotations was a product of the authors' efforts to provide representative supporting evidence for each of the categories identified during the inductive analysis process. Direct quotes are raw data that present participants' perspectives, emotions, and experiences (Patton, 2002). We included quotations from various participants in an effort to ensure the trustworthiness of our findings (Cote & Turgeon, 2005). In order to protect participants' confidentiality, we used pseudonyms to replace mothers' real names.

How Mothers Said They Would Support or Restrict Children's Autonomy

Autonomy support

Six categories captured mothers' autonomy support. Explanations and sample quotes follow.

Mother lets child experiment This code was used to mark statements indicating that the mother allowed or encouraged her child to explore, believing in the importance of trial and error. It applied most frequently to mothers' responses to Scenarios 1 (Soup) and 3 (Blocks). For example, in response to Scenario 1 (Soup), four mothers said they would let their children put sugar in the noodle soup because, "Children's

ways don't have to be the same as adults', perhaps. Children have curiosity," as shared by Ye, a mother of a 5-year-old boy. Yun, mother of a 5-year-old girl also shared that, "It is totally fine for my child to add some sugar...it is probably also ok for her to add other things, like cheese". In response to Scenario 3 (Blocks), almost all mothers ($n = 16$) said that they would allow for and/or encourage their children to experiment when building with blocks. Bing, mother of a 5-year-old boy said that, "There is no need for me to say something. He builds the tower, the tower falls, and he bursts into laughter". Rong, a 7-year-old girl's mother, shared the same sentiment, "I usually let my child decide. If the tower is about to fall, she can experience and experiment at what point it falls. I do not intervene".

Mother shows consideration for child's feelings This code was applied to statements indicative of sensitivity to and care about child's feelings. Such statements were found in each of the four scenarios, but most frequently in mothers' responses to Scenario 3 (Blocks). In response to Scenario 1 (Soup), Yuan, mother of a 4-year-old girl said, "If I don't let her add sugar to her noodle bowl, she might still insist on doing so, and get angry or even start crying. Crying is not good for her health, especially during mealtime". In response to Scenario 3 (Blocks), five mothers said that they would attend to children's feelings and come up with different strategies depending on how children would react to the falling of block towers. For example, Wei, mother of a 5-year-old boy shared, "If I see what he is doing, I may say to him, 'If you keep building it [adding more blocks on top of each other]. it might fall. Are you going to cry then?' Or I will tell him be careful".

Mother respects child's views and agentic choices This code was applied to statements acknowledging and expressing valuing of the child's perspectives and decisions in timing and methods for meal and/or learning activities. It was seen in each of the four scenarios, but most frequently in mothers' responses to Scenario 2 (Lunch). For example, six mothers said that they would respect their children's thoughts and decisions about food, instead of forcing them to eat. Ye, mother of a 5-year-old boy shared, "If he doesn't want to eat lunch, he is probably not hungry...this rarely happens, however. I usually have some snacks and fruits prepared for him". A few other mothers concurred that this situation does not occur in their homes because they asked their children for their ideas and preferences. For example, Lian, mother of a 4-year-old girl, shared, "Every time I pick her up from school, we walk through the market on the way home and she usually picks out what she likes to eat, mostly vegetables. My daughter is not a picky eater".

Mother compromises This code marked statements indicating that the mother would provide for or allow for alternatives that are acceptable to her while also taking into

Table 2 Qualitative Coding: Categories, Codes, Prevalence and Definitions (Study 1: *N* = 20; Study 2: *N* = 307)

Categories	Study 1 Codes (prevalence for Scenarios 1/2/3/4)	Study 2 Codes (prevalence for Scenarios 1/2/3/4)	Definitions
Autonomy Supportive	Let C experiment (20%/0%/80%/20%)	M let C experiment/M respects C's decisions (16.6%/7.5%/43.6%/15.3%)	M allows or encourages child to explore, believing in the importance of trial and error
	M shows consideration for C's feelings (10%/10%/25%/10%)	M shows consideration for C's feelings (2%/3.9%/4.2%/3.6%)	M is sensitive to and cares about child's feelings
	M respects C's views (5%/30%/0%/20%)	(In Study 2, M respects C's views was combined with M let C experiment/M respects C's decisions)	M acknowledges and values child's perspectives and decisions in timing and methods for meal and/or learning activities
	M compromises (60%/15%/0%/0%)	M negotiates, or compromises (12.7%/15.3%/2.3%/6.8%)	M provides or allows for alternatives that are acceptable to her while also taking into account child's preferences
	M explains (50%/40%/0%/0%)	M explains (56%/63.5%/30.9%/39.1%)	M provides reasons for why child should do certain things certain ways, or makes the rules and alternatives clear to children
	M teaches or helps (0%/0%/35%/25%)	M provides guidance/support/suggestions/strategies when needed to enable agency (6.5%/11.4%/24.8%/38.1%)	M tells child about her experiences and/or expresses willingness to provide information and strategies
	M doesn't let C experiment (60%/10%/0%/0%)	M says/indicates no (with no other response) (58.3%/1.3%/1.3%/29.6%)	M says she would not let child try out new things or new ways of doing things (probed why: because it is not what people usually do or mother is concerned about child's health)
Autonomy Restriction	M imposes agenda (0%/45%/0%/0%)	M has an agenda: M would tell C there is a right way, or M is rigid, or even lies to C. (5.5%/44.6%/12.7%/39.1%)	M is in charge of routines and schedules of child's daily life, with little to no room for flexibility

¹Prevalence = # of mothers with this code / # sample size (20 in Study 1; 307 in study 2)

account her child's preferences. It was applied most frequently to mothers' responses to Scenarios 1 & 2. In response to Scenario 1 (Soup), 12 mothers said they would compromise. They shared a similar strategy – adding a little sugar if their children insisted. In response to Scenario 2 (Lunch), only three mothers said they would save lunch for their children and the children could eat it later, or they would figure out some other alternative options. For example, Ying, mother of a 5-year-old girl, said she would ask her daughter, “How come you are not eating? Is it not tasty or do you want to eat something else?... If she wants fried rice or anything I have at home, I will try my best to satisfy her needs”.

Mother explains This code was applied to statements about providing reasons for why the child should do certain things certain ways, or making rules and alternatives clear to children. Explanations and clarification of rules appeared most frequently in responses to Scenarios 1 & 2. In response to Scenario 1 (Soup), 10 mothers said that they would explain to their children why it was not a good idea to mix sugar in the noodle soup. For example, Hong, mother of a 5-year-old boy said that she would tell her child, “[Eating sugar] will decay your teeth, like bugs in your teeth damaging your teeth. The bugs like sweets. Sweets hurt your teeth”. In response to Scenario 2 (Lunch), Xue, mother of a 5-year-old girl, said, “I would tell her you need to eat three meals a day. If you don't have your meals, how can you grow smart and get tall?” Ting, mother of a 5-year-old boy, concurred. “Picky eaters are not good. Eating helps you grow”.

Mother teaches and helps when needed to enable agency This code marked statements in which mothers said they would tell their children about their experiences and/or they said they would provide information (other than reasons). Such teaching and helping was apparent in each of the four scenarios, but most frequently in responses to Scenarios 3 & 4. For example, in response to Scenario 4 (Books), five mothers said that they would take their children to see real animals or use the internet and media resources to support their children's learning about animal sounds. This way, they reasoned, their children would learn how animals actually sound via direct experiences. Hong, mother of a five-year-old boy shared some details about ways to help and teach her child learn about animals. “I probably would *Baidu* [search a primary Chinese Internet search engine] some further information about this animal...He has seen chicken and ducks when we are back in the countryside...He usually pays attention to those animals and their sounds... Other animals like the elephants are not something we see in our everyday life. We go to the zoo where he has keen observations of those zoo animals”. When responding to Scenario 3, Xue, mother of a five-year-

old girl said this scenario happened in her home and that she would not intervene as her child was building the block towers. Instead, she would help analyze why her son's towers fell, such as telling him that the tower he had built lacked a solid foundation. Further, she said, “It is just like now Mom *guans* you, ... But if you are not setting up a solid foundation when you are a child, what is going to happen to you in the future? Without a solid foundation, your future life is going to be like this tower, falling apart”. Her statement was given two codes: mother teaches and helps, and mother explains.

Autonomy restriction

Two codes identified passages that captured autonomy restriction. Explanations and example quotes follow.

Mother does not let child experiment This code marked statements in which mothers said they would not let their children try out new things or new ways of doing things. When asked to provide a rationale to the interviewer, some mothers said because it is not what people usually do, while others shared that it is unhealthful. Given that mothers would not verbalize their reasoning to their children directly, but instead were prompted by the interviewer, this code was categorized under autonomy restriction.

Mothers' prohibition of children's experimentation due to beliefs that one should abide by societal norms was evident in mothers' responses to Scenarios 1 & 4. For example, in response to Scenario 1 (Soup), five mothers said sugar shouldn't be added to noodles and responded according to interviewer's follow up probe that because it is not the way we eat noodles. In response to Scenario 4 (Books), 15 mothers said they would correct their children if their children did not make the correct duck sounds (*ga ga ga*), which they said is the correct sounds for ducks. Many mothers shared a similar response “I will correct her right away”. Yang, mother of a five-year-old boy, said “sometimes he does not have good memories. It is important to tell him which one is correct, and which one is incorrect. It is the sound of a different animal”. Fen, mother of five-year-old girl also shared, “I will probably correct her and tell her it doesn't sound like ducks. I will then tell her how ducks sound or ask her if she has seen ducks before”.

Mothers' prohibition of children's experimentation due to the beliefs that children's decisions are not healthful was found in their responses to Scenarios 1 & 2. In response to Scenario 1 (Soup), mothers did not let their children add sugar and explained to the interviewer that it is not healthy. Yun, mother of a five-year-old girl explained to the interviewer in her response to Scenario 2 (Lunch) said, “considering her health and balanced daily routines, I think it is important to cultivate her good habits when she is little. If she doesn't want

to eat meals and I let her get away with snacks, then she will never eat her meals. Those snacks are not good for her health. Because of this, I decided to have a control over this”.

Mother imposes agenda on child This code marked mothers’ statements that they are in charge of children’s routines and schedules of daily life, with little to no room for flexibility. This position was reflected most frequently in mothers’ responses to Scenario 2 (Lunch). Nine mothers said their children were supposed to eat lunch at lunch time. Hong, mother of a five-year-old boy said, “It happened before, and he usually ended up eating his lunch. I told him if you don’t eat your lunch right now, there won’t be anything left later. Or it is going to be cold and I won’t warm it up for you. Also, I will not change dinner time to 2 or 3 p.m. just because you start feeling hungry around then.” She then reflected on her strategies and asked the interviewer (the first author) if she was too harsh or authoritarian.

Differences in the prevalence of the categories across the four scenarios were tested via Cochran’s Q Test (Conover, 1999). Furthermore, multiple comparisons tests were performed via McNemar Tests (Sheskin, 2011) to detect differences between scenarios for each code. Table 3 presents the results for Study 1.

Rating Autonomy Support and Autonomy Restriction Levels

In order to examine whether mothers differed in levels of autonomy support or restriction across the four scenarios, we conducted a 2-step analysis. Given that many mothers’ responses reflected both autonomy support and autonomy restriction, during the first step of the analysis we generated a numeric score for each mother’s responses to each of the four scenarios. Maternal autonomy support was scored as 1 (*low level autonomy support*), if the response to a given scenario had been coded as fitting only in autonomy restriction. Maternal autonomy support was scored as 2 (*medium level autonomy support*), if the response to a given scenario had been coded as fitting both autonomy support and autonomy restriction. Maternal autonomy support was scored as 3 (*high level of autonomy support*), if from the response to a given scenario had been coded as only in autonomy support. Thus, mothers’ levels of autonomy support were indicated by three numeric scores (1 = *autonomy restriction*, 2 = *medium level of autonomy support*, 3 = *high level of autonomy support*). Each mother received four scores, one for each scenario.

Comparing Autonomy Support or Restriction Levels across Four Scenarios

One-way repeated measure ANOVAs were used to test whether mothers’ autonomy support or restriction levels

varied across scenarios. Since Sphericity was violated [$W(5) = 13.76, p = 0.017$], the Greenhouse-Geisser correction was used. The results revealed that mothers’ levels of autonomy support varied across the four scenarios (Fig. 1), $F(2.07, 39.32) = 12.71, p < 0.001, \eta^2 = 0.40$. Bonferroni post-hoc tests comparing mothers’ responses to the four scenarios revealed that the level of autonomy support was higher in Scenario 3 (Blocks) (Mean = 3.00) than that in Scenario 1 (Soup) ($M = 2.35, p = 0.001$), Scenario 2 (Lunch) ($M = 2.25, p < 0.01$), or Scenario 4 (Books) ($M = 1.65, p < 0.001$). The level of autonomy support was also higher in Scenario 1 (Soup) ($M = 2.35$) than in Scenario 4 (Books) ($M = 1.65, p < 0.05$). Figure 1 presents cross-scenario comparisons.

Study 2 Method

Participants

Mothers in mainland China with at least one preschool-aged child were recruited to participate in the second study. One-hundred and thirty mothers from diverse socioeconomic backgrounds responded. Most of the target children were 3 years old ($n = 123$), followed by 4 years old ($n = 75$), 2 years old ($n = 64$), and 5 years old ($n = 48$). Among these children, 57.7% were females ($n = 179$), and 44.2% were male ($n = 137$). Other demographic information is displayed in Table 1.

Data Collection Procedure

Upon the approval of the Illinois State University IRB, data were collected using Qualtrics Panel. Participants were asked to respond to an online survey, which took about 10 min to complete. The survey was in Mandarin Chinese. Participants were asked to respond to the same four scenarios as were in Study 1.

Study 2 Analysis and Results

Inductive analysis using the constant comparison approach (Corbin & Strauss, 2015) followed procedures similar to those used in Study 1. Two bilingual graduate students independently coded mothers’ responses to each scenario. Guided by the constant comparison method (Corbin & Strauss, 2015), the two researchers met biweekly for debriefing and to discuss disagreements until the consensus was reached. The coding scheme and the frequency with which each was applied are presented in Table 2. Similar to Study 1, the differences on the prevalence of the categories across four scenarios were tested via Cochran’s Q Test

Table 3 Cochran's Q Tests Followed by Multiple Comparison Tests via McNemar Tests on the Differences of Presence of Categories across Four Scenarios

Study 1 Categories	Study 1 Cochran's Q Test across Four Scenarios ¹	Post-Hoc Analyses Results ²	Study 2 Categories	Study 2 Cochran's Q Test across Four Scenarios ¹	Post-Hoc Analyses Results ²
M let C experiment	$\chi^2(3) = 30.857, p < 0.000^a$	S1 > S2, $p = 0.1250$ S1 < S3, $p = 0.0005^b$ S1 > S4, $p = 1.0000$ S2 < S3, $p = 0.0000^b$ S2 < S4, $p = 0.1250$ S3 > S4, $p = 0.0018$	M let C experiment/M respects C's decisions	$\chi^2(3) = 143.893, p < 0.000^a$	S1 > S2, $p = 0.0007$ S1 < S3, $p = 0.0000^b$ S1 > S4, $p = 0.7341$ S2 < S3, $p = 0.0000^b$ S2 < S4, $p = 0.0035$ S3 > S4, $p = 0.0000^b$
M shows consideration for C's feelings	$\chi^2(3) = 3.000, p = 0.392$	S1 < S2, $p = 1.0000$ S1 < S3, $p = 0.4531$ S1 > S4, $p = 1.0000$ S2 < S3, $p = 0.3750$ S2 > S4, $p = 1.0000$ S3 > S4, $p = 0.4531$	M shows consideration for C's feelings	$\chi^2(3) = 2.949, p = 0.400$	S1 < S2, $p = 0.2379$ S1 < S3, $p = 0.1671$ S1 > S4, $p = 0.3323$ S2 < S3, $p = 1.0000$ S2 > S4, $p = 1.0000$ S3 > S4, $p = 0.8388$
M respects C's views	$\chi^2(3) = 8.806, p = 0.032$	S1 < S2, $p = 0.1250$ S1 > S3, $p = 1.0000$ S1 < S4, $p = 0.2500$ S2 > S3, $p = 0.0313$ S2 > S4, $p = 0.7539$ S3 < S4, $p = 0.1250$	(In Study 2, M respects C's views was combined with M lets C experiment/M respects C's decisions)	N/A	
M compromises	$\chi^2(3) = 28.317, p < 0.000^a$	S1 > S2, $p = 0.0117$ S1 > S3, $p = 0.0005^b$ S1 > S4, $p = 0.0005^b$ S2 > S3, $p = 0.2500$ S2 > S4, $p = 0.2500$ S3 < S4, (no codes) ^c	M negotiates, or compromises	$\chi^2(3) = 37.831, p < 0.000^a$	S1 < S2, $p = 0.3889$ S1 > S3, $p = 0.0000^b$ S1 > S4, $p = 0.0256$ S2 > S3, $p = 0.0000^b$ S2 > S4, $p = 0.0015$ S3 < S4, $p = 0.0140$
M explains	$\chi^2(3) = 23.714, p < 0.000^a$	S1 > S2, $p = 0.6875$ S1 > S3, $p = 0.0020$ S1 > S4, $p = 0.0020$ S2 > S3, $p = 0.0078$ S2 > S4, $p = 0.0078$ S3 < S4, (no codes) ^c	M explains	$\chi^2(3) = 57.595, p < 0.000^a$	S1 > S2, $p = 0.0000^b$ S1 > S3, $p = 0.0000^b$ S1 > S4, $p = 0.0000^b$ S2 < S3, $p = 0.7266$ S2 > S4, $p = 0.2500$ S3 > S4, $p = 0.0625$
M teaches/helps	$\chi^2(3) = 14.250, p = 0.003$	S1 = S2 (no codes) ^c S1 < S3, $p = 0.0136$ S1 < S4, $p = 0.0625$ S2 < S3, $p = 0.0156$ S2 < S4, $p = 0.0625$ S3 > S4, $p = 0.7266$	M provides guidance/support/suggestions/strategies when needed to enable agency	$\chi^2(3) = 52.932, p < 0.000^a$	S1 < S2, $p = 0.1338$ S1 < S3, $p = 0.0000^b$ S1 < S4, $p = 0.0000^b$ S2 < S3, $p = 0.0000^b$ S2 < S4, $p = 0.0006$ S3 > S4, $p = 0.2545$
M doesn't let C experiment	$\chi^2(3) = 35.571, p < 0.000^a$	S1 > S2, $p = 0.0005^b$ S1 > S3, $p = 0.0005^b$ S1 < S4, $p = 0.5078$ S2 = S3 (no codes) ^c S2 < S4, $p = 0.0001^b$ S3 < S4, $p = 0.0001^b$	M says/indicates no (that is the only response)	$\chi^2(3) = 359.170, p < 0.000^a$	S1 > S2, $p = 0.0000^b$ S1 > S3, $p = 0.0000^b$ S1 > S4, $p = 0.0000^b$ S2 = S3, $p = 1.0000$ S2 < S4, $p = 0.0000^b$ S3 < S4, $p = 0.0000^b$
M imposes agenda	$\chi^2(3) = 27.000, p < 0.000^a$	S1 < S2, $p = 0.0039$ S1 = S3 (no codes) ^c S1 = S4 (no codes) ^c S2 > S3, $p = 0.0039$ S2 > S4, $p = 0.0039$ S3 = S4 (no codes) ^c	M has an agenda: M would tell C there is a right way, or M is rigid, or even lies to C.	$\chi^2(3) = 260.685, p < 0.000^a$	S1 < S2, $p = 0.0000^b$ S1 < S3, $p = 0.0039$ S1 < S4, $p = 0.0000^b$ S2 > S3, $p = 0.0000^b$ S2 > S4, $p = 0.0000^b$ S3 < S4, $p = 0.0000^b$

The frequencies of codes were compared with Cochran's Q tests, followed by multiple comparison tests via McNemar tests to detect between scenario differences across six pairs of scenarios for each code.

¹Due to the number of tests, an adjusted p -value was used to address the inflated alpha concern. Bonferroni correction was used to generate the indicator of statistical significance by considering the number of tests, which resulted in an adjusted $p \leq 0.05/15$ (tests) = 0.003. This means that p value smaller than 0.003 indicates the statistical significance.

²S is short for Scenario, Scenario 1 as S1 and so forth. Bonferroni correction was used to generate the indicator of statistical significance, which resulted in an adjusted $p \leq 0.05/(6 \times 15)$ (tests) = 0.0006. P value smaller than 0.0006 indicates the statistical significance.

^aIndicates a statistically significant result via Cochran's Q tests.

^bIndicates a statistically significant result between each pair of scenarios for each code for the follow-up multiple comparison tests via McNemar tests.

^cNo cases were assigned = this code in either scenario (0% frequency of codes), therefore no meaningful results were generated as a result of McNemar tests.

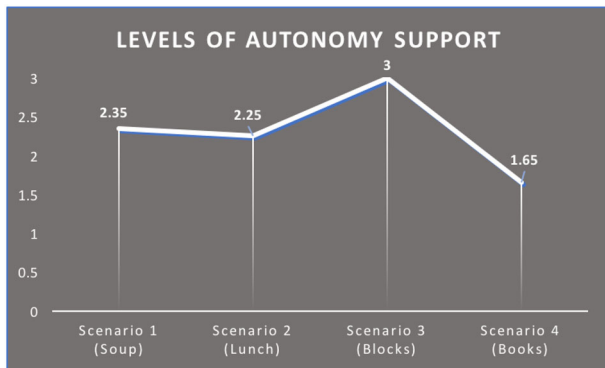


Fig. 1 Study 1 repeated measure ANOVA results of maternal support for autonomy varies across caregiving contexts ($N=20$). Note. 1 is soup scenario, 2 is lunch scenario, 3 is blocks scenario, and 4 is book reading scenario. Autonomy support coding ranges from 1 (low), 2 (medium), to 3 (high)

(Conover, 1999) followed by multiple comparison tests via McNemar Tests (Sheskin, 2011). Table 3 presents the results for Study 2.

Similar to Study 1, each response to each scenario was categorized according to level of autonomy support (1 = low, 2 = medium, 3 = high). Consequently, each participant received a score for each of the four scenarios. A one-way repeated measure ANOVA was performed. Since Sphericity was violated [$W(5) = 14.26, p = 0.014$], the Greenhouse-Geisser correction was used. The results revealed that mothers' levels of autonomy support varied across the four scenarios (Fig. 2), $F(2.904, 786.961) = 49.285, p < 0.001, \eta^2 = 0.15$. Bonferroni post-hoc tests comparing mothers' responses to the four scenarios revealed that the level of autonomy support was higher in Scenario 3 (Blocks) ($M = 2.813$) than that in Scenario 1 (Soup) ($M = 2.287$), ($p < 0.001$), Scenario 2 (Lunch) ($M = 2.404$), ($p < 0.001$), or Scenario 4 (Books) ($M = 2.298$), ($p < 0.001$).

An additional research question for Study 2 asked if mothers' levels of support or restriction vary by educational level. A MANOVA showed that mothers' education was statistically significantly related to level of autonomy support, $F(16, 749.125) = 1.811, p = 0.026$; Wilks' lambda = 0.891. Specifically, mothers' levels of autonomy support in their responses to Scenario 4 (Books) varied by mothers' education, $F(4, 248) = 3.418, p = 0.01$; partial $\eta^2 = 0.052$. Mothers with high school education or less reported lower levels of autonomy support in Scenario 4 (Books) than mothers with a bachelor's degree ($p = 0.038$) and mothers with a master's degree ($p = 0.009$).

General Discussion

Self-determination theorists argue that autonomy is one of the fundamental human needs for well-being and

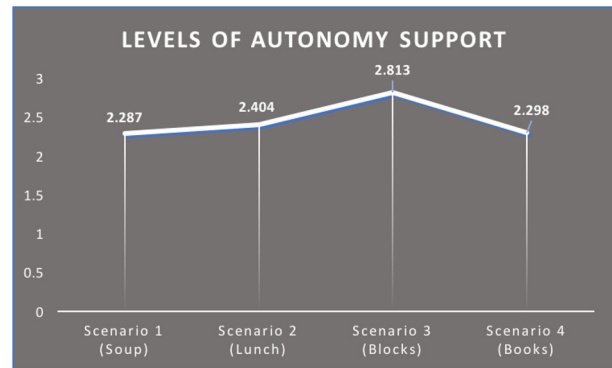


Fig. 2 Study 2 repeated measure ANOVA results of maternal support for autonomy varies across caregiving contexts ($N=307$). Note. 1 is the soup scenario, 2 is the lunch scenario, 3 is the blocks scenario, and 4 is the book reading scenario. Autonomy support coding ranges from 1 (low), 2 (medium), to 3 (high)

achievement across the globe (Deci & Ryan, 2002). Research on autonomy support has been conducted primarily with families in western countries and their school-aged or adolescent children (Grolnick et al., 2002; Vasquez et al., 2016). The current studies provided descriptive evidence revealing if and how mothers in mainland China support their very young children's autonomy and how their strategies may differ across caregiving contexts and mothers' education levels. As our inductive coding proceeded, parenting strategy themes emerged that were similar to those described in previous research on maternal autonomy support (Grolnick et al., 2002; Grolnick & Ryan, 1989; Whipple et al., 2011). In Study 1, the sensitizing concept of *respect* was demonstrated by two codes (mother let child experiment and mother respects child's views). The same concept was reflected in Study 2 as mother let child experiment or mother let child decide. The sensitizing concept-*suggestions and guidance* or scaffolding was demonstrated by mother teaches or mother helps when needed to enable agency in Study 1, and by mother provides guidance, support, suggestions, or strategies when needed to enable agency in Study 2. The sensitizing concept-*reasoning* is reflected in both studies as mother explains, either about societal norms or concerns about health or other consequences. The sensitizing concept of *shows consideration of child's feelings* is similar to the code mother recognizes child's feelings in both studies. The code mother compromises in Study 1 or mother compromises or negotiates in Study 2 did not originate from the sensitizing concepts documented in the literature. Additionally, as presented in Table 2, the prevalence of codes across scenarios also presented the variations of strategies used in different caregiving contexts. Further, both autonomy restrictive codes were added to our coding scheme.

Our scenario-based qualitative inquiry revealed that Chinese mothers today endorse autonomy supportive

parenting strategies. The results challenge existing perceptions of Chinese parenting (such as that of the “Tiger mom;” Chua, 2011) as purely authoritarian with high control (Lin & Fu, 1990; Su & Hynie, 2011). As shown in these two studies, Chinese mothers of young children said they would use various autonomy supportive strategies within each caregiving context and across caregiving contexts. These strategies are likely to help them achieve their socialization goals contextualized in Chinese culture (Wang et al., 2012). It is likely that Chinese parenting practices are evolving as culture changes, in part because Chinese parents’ parenting decisions may be influenced by the western world through social media and in part because economic changes have brought greater prioritization of creativity. Within the last decade, there is an increasing amount of evidence that Chinese parents’ parenting practices are becoming more child centered with the respect for children’s autonomy (Chen et al., 2012; Wang, 2014).

The scenario-specific variations in the current study echo domain theory (Smetana, 1988), which posits that the importance of parental authority and parenting strategies differs across different caregiving contexts (Fung et al., 2017; Vansteenkiste et al., 2014). Comparative analyses in both present studies showed scenario-based variations in the levels of autonomy support and restriction that the mothers said they would use. Responses to Scenario 3 (Blocks) showed higher levels of autonomy support than responses to Scenarios 1 (Soup), 2 (Lunch), or 4 (Books). Most mothers said they would let children experiment when building with blocks because it was “just playing”. Mothers were less autonomy supportive in situations concerning children’s health and eating habits, (such as Scenarios 1-Soup and 2-Lunch) and book-reading (Scenario 4).

Mothers thus said they would provide the highest autonomy support to children in the play context (Scenario 3). Parents might perceive higher pressure from other family members and peers to raise a child who is healthy and academically successful than to raise a child who is creative during play (Scenario 3-Blocks). Similar to what UC Big Data reported (2017), Chinese mothers are very concerned about their children’s education (Scenario 4) and health (Scenarios 1 and 2). In the UC Big Data report, these ranked as the top two anxiety inducing issues for mothers in contemporary China. Chinese parents may sense high pressure to socialize their children to achieve self-improvement through their care, love, monitoring, and cultivation across various caregiving contexts. These are likely to include fostering of balanced and nutritious habits (Scenario 1-Soup), establishment of healthy routines (Scenario 2-Lunch), and acquisition of knowledge (Scenario 4-Book). Consequently, mothers seem more willing to override children’s desires in these three caregiving contexts than in a play context (Scenario 3-Blocks).

In China, academic competitiveness starts at birth, indicated by a widely shared slogan on popular social media platforms, “Don’t let your child fall behind at the starting line.” In some metropolitan areas, young children and their parents are required to have a resume and to attend an interview as part of the qualification process established by some highly ranked kindergartens or elementary schools. Chinese parents’ socialization goals of self-enhancement in order to excel academically may join with their goals to inculcate interdependence and filial piety to support their understanding that they must correct their children when their children are wrong in matters viewed as preacademic (e.g., in our book scenario). Furthermore, according to Chinese societal norms, children will not know how they are doing in book reading unless their mothers pointed out their errors. In contrast, it is much easier for children to see the outcome when a block tower falls. There might therefore be no need for mothers to provide direct and instant feedback to their children. It is also likely that Chinese mothers are more sensitive to child’s “failure” (Ng et al., 2007) in the academic learning context than in play contexts because school failures are perceived as bringing embarrassment to the entire family as well as to the child. Furthermore, Scenario 4 (book) simulates a caregiving context where correct answers are “more clear” to these mothers. However, correction without reasoning is perceived by SDT researchers as reflecting low level autonomy support. It is also important to note the differences between controlling behaviors (psychological control) and structured behaviors (behavioral control). Controlling behaviors according to self-determination theorists, are behaviors that show high levels of intrusion, pressure, and power assertion which might undermine child well-being, whereas structured behaviors can involve monitoring or setting limits which that are more likely to nurture child development (Grolnick & Pomerantz, 2009). Though societal-political context is important to consider, how control is exerted, and in what manners is critical for parents as they are calculating the consequences for their child’s relationships and psychological well-being in a long-term. The perceptions of children, and whether they receive their parents’ control as intrusive or as constructive deserves attention when investigating parental control and autonomy in Chinese culture.

Responses to the two mealtime situations also showed lower levels of autonomy support (or higher levels of autonomy restriction) than responses to Scenario 3 about block play. Mothers’ responses to the Scenarios 1 (Soup) and 2 (Lunch) seemed driven by concern over children’s health. While academic success might be the most important socialization goal, physical health with well-balanced habits and lifestyle is also a highly valued socialization goal (Wang & Chang, 2008). Mothers might perceive similar level of pressure from the society to raise a healthy child as

there is to raise an academically successful child. When mothers experience high levels of pressure in how they are evaluated as parents, they often exhibit higher levels of control than in conditions in which such pressure (or worry about) is lower (Grolnick et al., 2007). However, playing blocks might not have the same implications when it comes to evaluating parents' parenting effectiveness. Creativity, problem solving, or fine motor skills might not be among the top concerns of Chinese mothers compared to other caregiving contexts, though expectations around play may be gaining additional attention in Chinese families as a result of globalization. Given the centrality of cultivating filial piety (such as interdependent social relationships), relatively lower level of mothers' autonomy support with Scenarios 1 (soup) and 2 (lunch) might be reflections of mothers who are trying to achieve this socialization goal. It is likely that mothers see cultivating a healthy routine among their children as a major responsibility of theirs in Chinese culture (Rudy et al., 2007). Autonomy restrictive behaviors, however, are coded as representing low levels of autonomy support according to SDT (Deci & Ryan, 2002). Further research is needed to investigate children's perspectives about the meanings and implications of their parents' behaviors in these situations and further unveil the intricacies of individual versus inclusive autonomy (Rudy et al., 2007). At the same time, it is important to note that the average autonomy support rating was above 2 (medium level) for both mealtime contexts in both studies. Even though many said they would say "no" to their children's requests, they also said that they would provide explanations or possible alternatives.

Mothers' education influenced levels of maternal autonomy support. Specifically, mothers with higher education levels were more likely to support children's autonomy in Scenario 4 (book) than mothers with high school or less education. This is similar to the findings of research studies comparing middle-class families with low socioeconomic status families in the U.S. and mainland China (Bayley & Schaefer, 1960; Bradley et al., 2001; Chen et al., 1997; Gecas, 1979; Hess, 1970). Our Study 2 findings may also be a methodological artifact due to the use of open-ended written responses in Study 2. Mothers of lower education levels are more likely to be constrained in the depth and length of their written responses than those with higher education levels, and brief responses may have been more likely to be coded as reflecting low levels of autonomy support. Still, research has shown that parents with more formal educational training are more likely than parents with less formal educational training to endorse egalitarian parent-child relationships that involve less parental control (Carr & Pike, 2012). Egalitarian beliefs promote consideration of children's voices and perspectives in everyday caregiving practices.

Mothers' autonomy support level was lower among mothers in Study 1 than in Study 2. It is very likely that this is because mothers in Study 1 were selected via a purposive sampling strategy seeking women from relatively low-income backgrounds in their community, whereas mothers in Study 2 came from socioeconomically diverse backgrounds. Higher levels of autonomy restriction in Scenario 4 (Books) in Study 1 might be explained by the age groups of most of the target children (Study 1: ages 4 to 7; Study 2: ages 2 to 5). Most of the target children in Study 1 were about to transition to kindergarten. It is very likely that their mothers were more concerned about their school readiness than about the issues in the other scenarios (Holloway et al., 1995). For mothers from both samples, their children were either at the transition to or just transitioned to kindergarten, this is also a key developmental stage when mothers might have the highest concern about children's school readiness. It marked the starting point of their children's formal education which might induce parents' fear that their children would lag behind from the beginning (Ng et al., 2007). Mothers' pressure in face value and worries of children's failure might be heightened at this point (Kim et al., 2010; Ng et al., 2007). Given the young age of the children in both samples, mothers are likely the primary socializers to teach, cultivate and correct their children so that their children are ready for their school environment. Future research may investigate these caregiving contexts and mothers' autonomy support levels at different developmental stages.

Strengths, Limitations, and Future Directions

The current study unveiled scenario-specific parenting decisions reflecting autonomy support and restriction of young children by mothers in mainland China. The scenario-based interviews allowed participants to share their thoughts, not only on what they would do and say, but also on their reasons. By using scenario-based interviews, we could compare mothers' decisions and rationales across four caregiving situations. It is important for researchers to consider maternal autonomy supportive strategies and autonomy restrictive behaviors as varying across different caregiving contexts. Additionally, while Study 1 was exploratory in nature, Study 2 showed that the results from that small sample were generalizable across a much larger sample in mainland China. Both studies suggest widespread use of autonomy-supportive childrearing practices in China.

Despite the contributions of the current study, caveats are inevitable. These give rise to future research questions. First, the current study investigated mothers' perspectives. However, it is very likely that children perceive mothers' practices differently, particularly if reasoning is not provided. Mothers who did not let their child experiment and mothers who teach or help their children with a task could both be considered as

controlling. However, children may perceive the former behavior as less autonomy supportive than the latter. It is also important to consider the caregiving context when studying parental autonomy support and the impacts on children's outcomes. The four caregiving contexts we designed were intentionally neutral and meant to reflect children's everyday experiences. They are non-threatening circumstances. Future investigations should consider utilizing vignettes or situations where children are more likely to be hurt, injured, such as biking on a busy street or touching a hot stove top. Additionally, the current study revealed that mothers said they would put different levels of emphases on autonomy support and restriction across different caregiving contexts. Further attention is needed to consider variations in caregiving situations. It would also be interesting to elicit preschoolers' perspectives on their mothers' rules across caregiving contexts. Second, considering the active involvement of grandparents in mainland China (Chen et al., 2011; Low & Goh, 2015), future research might consider investigating grandparents' beliefs and practices in regards to autonomy support and restriction (Yan et al., 2017). Future research might also test all three components of SDT theory, especially the interconnections between autonomy and relatedness (Kagitcibasi, 2005). Longitudinal investigations are also much needed to follow families over time in order to examine whether and how maternal autonomy support in early childhood links to children's later developmental outcomes. Future research can also consider reaching out to parents in rural areas in China given that parents who responded to our Qualtrics survey may be largely from urban cities with widely available Internet.

Implications

Self-determination theory-based parenting interventions in the U.S. have shown that teaching parents how to support children's autonomy alleviates parenting stress and enhances parents' sense of efficacy (Allen et al., 2019). Our findings from this two-study project can provide examples of strategies to parents of young children in regards how to support their children's autonomy across caregiving contexts. For researchers, we hope these findings can inspire further empirical efforts to study autonomy support in non-Western cultures and in various contexts among young children's families.

Acknowledgements I appreciate all the support I received from my dissertation committee Chair and Members: Jean Ispa, Gus Carlo, Duane Rudy, and Candace Kuby. I am also thankful for the hard work of my four bilingual graduate assistants (Jiang Jiang, Chen Ju, Li Yin, and Dongniya Xiu) who helped me transcribe interviews, and contributed to the coding and peer debriefing process. I also appreciate the financial support that I received from the Department of Human Development and Family Consumer Sciences at University of Missouri to provide me a dissertation grant. Significant financial support also came from the Provost's Office at Illinois State University as Study 2 was funded to the first author.

Compliance with Ethical Standards

Conflict of Interest The authors declare no competing interests.

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

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