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**The moderating effects of positive psychological strengths on the relationship between
tiger parenting and child anxiety**

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Abstract

The children of tiger parents have an elevated risk for anxiety disorders. This study aimed to expand upon the current literature, in a first such attempt, by uncovering the protective factors against the negative influence of tiger parenting on children. A Chinese sample of 439 Hong Kong children was successfully selected to assess whether tiger parenting increases the risk of child anxiety, and whether children's positive psychological traits can moderate the relationship between tiger parenting and child anxiety. The results showed that tiger parenting was positively associated with child anxiety, while the relationship of four positive moderators (namely, optimism, life satisfaction, hope, and gratitude) with child anxiety was negative. The children's optimism and gratitude also moderated the parental effect on child anxiety. To cultivate children with healthy psychological development, considerable efforts

should be made on the parents and children to promote the benefits of positive parenting and positive psychology.

Keywords: Tiger parenting; Child anxiety; Positive psychological strengths; Positive parenting; Positive psychology

1. Introduction

Hong Kong is well known as one of the world's most competitive cities. To ensure that their children “win at the start line”, parents place a high value on academic grades and set strict regulations for their offspring (Lau & Cheng, 2016). Moreover, in the hope of enhancing their children's personal profiles and giving them a competitive edge for school entry, parents tend to involve themselves closely in their children's education at an early stage and arrange their children with extensive and diverse extracurricular participation at a very young age (Fung & Cheng, 2011). A study conducted among 1260 Hong Kong parents with kindergarten-aged children found that the average number of extracurricular activities joined by their children was 2.15, $SD = 1.01$ (Lau & Cheng, 2016). Nearly half (48.8%) enrolled in English language related activities, 39.4% in drawing, 24.4% in dancing and music. 42.6% of them admitted that, through the activities, they hope to enhance their children's all-round development and transition to primary school. In 2015, a study done by the Polytechnic University School of Nursing and an NGO among 12,518 secondary school students also indicated that some schools compete with each other in terms of the amount, depth and difficulty of their homework was partly due to the push from parents who do not want their children lagging behind others (The Hong Kong Polytechnic University & Christian Family Service Centre, 2015). Some parents also arranged tight schedules for their young kids by taking “shortcut interview classes” even before they attend kindergarten, attending various interest and tutorial classes for the purpose of having certificates and awards to create a good-looking portfolio for edging into elite school.

Various interest and tutorial classes have become an “industry” in Hong Kong (Sing Tao Daily, 2015). Learning to play the piano is for taking grading examinations. Learning to draw is for joining competitions, while they may not necessarily suit the interests, talents and

abilities of the children. No matter whether the parents like it or not, they go after these because they are also under great psychological pressure by the social environment. They strive to find the best playgroups and tutorial classes, which they think can help their children a better chance at gaining entry to prestigious schools, with the ultimate goal of maximizing the chances of achieving career success in the future. This mentality has become increasingly prevalent and the term “monster parents”, “tiger parents” or “tiger parenting”, which describes their parenting style and refers to parents who impose harsh parental control and extreme demands for excellent on children in terms of both behavioural and academic performance (Chua, 2011), has been popularized among the public (South China Morning Post, 2016) and in academic studies (Ko, 2016; The Hong Kong Institute of Education, 2012).

Unsurprisingly, such huge parental expectation and intrusion not only often affects the children and puts a high level of pressure on them at the risk of “pulling up the seedling to help it grow”, but also the childcare pressures of parents themselves. According to a survey conducted by The Chinese University of Hong Kong (2016), almost nine-tenths of adult respondents agree that Hong Kong children nowadays are under a high level of study stress and do not have fun and free time to play. Although they wished children could be happy, joyful and develop freely, 52.5% still enrolled their children to one to four extracurricular activities during school time. Based on a study from 999 children aged between 9 and 12 (Chan, Poon, & Tang, 2016), study-related stress and after-school activities are identified as two strong predictors of childhood anxiety in Hong Kong along with other factors including family life and interpersonal relationship. The Mental Health Review Report published by Food and Health Bureau (2017) found that 16% of local students aged 13 to 15 displayed symptoms of mental disorders including anxiety and depressive disorders. This number was

higher than the respective global ratio of 13%. In terms of caseload handled by the child and adolescent psychiatric teams of Hospital Authority, it had also surged by 69% in five years to 32,000 in 2016–17.

In Hong Kong, there has recently been panic the rising number of student suicides. At least 71 fatal student suicide cases were reported among primary, secondary, and post-secondary students in the three academic years from 2013 to 2016 (Committee on Prevention of Student Suicides, 2016). The Hong Kong Special Administrative Government set up the Committee on Prevention of Student Suicides to examine the possible causes behind them and to advise possible measures for prevention. Although youth suicide was found to be a complicated problem caused by a number of factors including peer and family relationships, psychological concerns, mental issues such as anxiety and depression, household finance, school adjustment and academic stress still played an important part leading to students' suicidal behaviors. According to a post-mortem study over the causes of all of the 38 youth suicidal cases, 58% showed adjustment issues related to schooling (Committee on Prevention of Student Suicides, 2016). Of course, it might not be fair to blame parents for all their children's study stress and mental issues. Sometimes, they were also ambivalent in striking a right balance. However, for better or for worse, parenting styles have been found to be crucial on child and adolescent psycho-social development (Gherasim, Brumariu, & Alim, 2017; Huang et al., 2017; Piko & Balazs, 2012; Wang, Chan, Lin, & Li, 2015).

2. Parenting styles and child psychosocial outcomes

Parenting refers to parent-child interactions across a wide range of situations, including parental warmth, control, support, and communication (Connell & Dishion, 2008). In general, parenting styles vary along two dimensions: parental support/responsiveness and parental

control/demandingness (Maccoby & Martin, 1983). Parental responsiveness is the dimension of warmth. In contrast with coldness and rejection, ignoring, indifferent, and neglect, it refers to the degree of parental nurturance, acceptance, involvement, sensitivity, and affection in response to children's emotional and psychological needs. Parental demandingness is the dimension of control. In contrast with autonomy and independence, it refers to parental control over the child's actions and the use of authority and disciplinary practices (Gherasim et al., 2017). This dimension of control has been conceptualized in different forms including (a) restriction which is characterized by high demand without democratic exchange or negotiation (Stewart et al., 1998); (b) harsh discipline/control such as physical or verbal punishment and intrusiveness (Wagner, Cohen, & Brook, 1996); (c) behavioural control indicating active parental strategies to have clear communication and consistent expectations on their children's appropriate behavior (Akcinar & Baydar, 2014); (d) psychological control is attempts by parents to manipulate children's psychological and emotional experiences, such as using guilt induction, shaming, and conditional loving to pressure their children (Barber, 1996); (e) parental overcontrol/over-protection which indicates parents' excessive intrusion and interference in children's plan and relationships to the extent of discouraging their independence (Silk, Morris, Kayana, & Steinberg, 2003); and (f) autonomy granting is parental non-coercive, democratic discipline allowing children's independent expression and decision making.

2.1. Parenting styles

Based on the two dimensions of responsiveness and demandingness, four parenting styles are identified. They are authoritative parenting (high in both demandingness and responsiveness), authoritarian parenting (high in demandingness but low in responsiveness), permissive parenting (high in responsiveness but low in demandingness), and neglectful parenting (low

in both responsiveness and demandingness) (Baumrind, 1971; Maccoby & Martin, 1983). According to Baumrind (1971), authoritative parents are warm, involved, and responsive. They are also demanding with clear expectations of their children to be rule adhering and accountable. However, they do allow their children's reasoning and democratic participation in the process of setting rules and strategies of discipline, and grant autonomy to their children. In contrast, authoritarian parents are harsh, demanding and restrictive with little warmth. They demand obedience, stress hierarchy and authority to restrict children's autonomy (Kim, Wang, Lapray, Shen, & Murtuza, 2013). They believe that using fear, force, and punishment is more effective for eliciting behavioural compliance and generating desired outcomes in their children (Baumrind, 1966). In comparison, authoritarian parents tend to use coercive control, which is firm, intrusive and domineering, to impose behavioural control over the children in order to maintain the hierarchical structure of the parent-child relationship, whereas authoritative parents tend to use confrontative control, which is negotiable with guidance and demonstration (Baumrind, 2012). Permissive parents are warm, involved, and supportive of their children's autonomy. However, they are not demanding to the extent of ignoring their child's misbehavior or even lack of confidence in parenting (Robinson, Mandelco, Olsen, & Hart, 1995). The last one is neglectful parents who are largely non-demanding and unresponsive to their children.

Parenting styles and its influence on child and adolescent's psychosocial and developmental outcomes have been widely explored in previous research. Consistent findings among Caucasian populations showed that authoritative parenting with adequate parental monitoring, warmth, and support was associated with positive child outcomes, including higher-level of social competence and school adjustment among adolescents (Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994), less disruptive behavior in a sample of 3 to

6 years old children (Querido, Warner, & Eyberg, 2002), better self-esteem and mental health (Dehart, Pelham, & Tennen, 2006; Hashimoto, Onuoha, Isaka, & Higuchi, 2011; Steinberg & Morris, 2001), and decreased levels of depression (Piko & Balazs, 2012; Plunkett, Henry, Robinson, Behneke, & Falcon, 2007). In contrast, authoritarian parenting with harsh parental control, low levels of parental nurturance and support was associated with low academic performance (Steinberg, Lamborn, Dornbusch, & Darling, 1992; Zullig, Huebner, & Patton, 2011), behavioural and emotional maladjustments (Dallaire et al., 2006; Sheehan & Watson, 2008), including lower levels of self-esteem (Martinez & Garcia, 2007) and higher levels of depression among adolescents (Nguyen, 2008), child anxiety (Baumrind, 1991; Wood, McLeod, Sigman, Hwang, & Chu, 2003), and their deviant and aggressive behaviour (Chan, Bowes, & Wyver, 2009; Yeh, 2011). Permissive parenting with low control and high levels of autonomy was also found to be associated with less distress but more externalizing behavior problems (Rinaldi & Howe, 2012; Steinberg et al., 1994).

2.2. Concerns of the study

In spite of extensive studies in western societies linking parenting styles to child and adolescent's psychosocial and developmental outcomes, much of the exploration was focused on their bivariate associations rather than testing more complex theory-driven mediational models or moderating effects. Of course, limited number of studies had been done to explore the extent to which child age (van der Bruggen, Stams, & Bogels, 2008), child gender (Moller, Nikolic, Majdandzic, & Bogels, 2016), child ethnicity (Varela, Sanchez-Sosa, Biggs, & Luis, 2009), or parental gender (McLeod, Wood, & Weisz, 2007) can moderate the size of association between parenting and internalizing symptoms of the child such as anxiety, depressive symptoms, somatic complaints, and social withdrawal. Further studies extending the literature to understand possible factors which help moderate parenting styles and child

development can inform their treatment and prevention. In addition, the relationship between parenting styles and child development outcomes is still inconclusive among non-Western adolescents. For examples, Chao (1994) suggested that, comparing with children in Western societies, authoritarian parenting has less negative effect among Chinese children since they view parents' regulation as a sign of care and love. Although authoritarian parenting is usually found to be negative to child and adolescent's development, Zhang (1999) found that authoritarian parenting plays a positive role without causing social and developmental problems among children in a Chinese culture. Shek (2007a) also found that although Chinese parents are used to nagging children, yelling at them, and even punishing them when they fail to meet their expectations, adolescents do not necessary perceive these parenting practices as harsh. Therefore, it is worth to call for more empirical investigations into non-Western parent-child relationships.

Moreover, in recent years, along with highly competitive and increasing demands of society, new forms of parenting are proliferated, such as tiger parenting, monster parenting or helicopter parenting. Because of their dominating and controlling characteristics, they are often regarded as dysfunctional for child and adolescent's psychosocial development (Kouros, Pruitt, Ekas, Kiriaki, & Sunderland, 2017; Piko & Balazs, 2012). However, research examining these new forms of parenting in particular among Chinese context still remains rare and far lags behind the social development. Therefore, to catch up with the most updated social development in Hong Kong society, this study aimed to explore the relationships between tiger parenting and child anxiety, and the factors (optimism, life satisfaction, hope, and gratitude) that can positively moderate the relationships. Given the association of parenting styles and child psychosocial development, this study was conducted based on the hypotheses below:

Hypothesis 1. The tiger parenting style will be positively associated with child anxiety.

Hypothesis 2. The four positive moderators of optimism, life satisfaction, hope and gratitude will be negatively associated with child anxiety.

Hypothesis 3. The four positive moderators (optimism, life satisfaction, hope, and gratitude) will buffer the relationship between tiger parenting and child anxiety.

2.3. Tiger parenting

Tiger parenting was first depicted by Chua (2011) as a Chinese way of parenting that emphasizes strict parental control, uncompromising imposition of parental rules, extreme demands for child's success and excellence in both behavior and academic performance. According to Chua (2011), tiger parents are highly controlling and authoritarian to set strict controls on their children and deny their free time by participating in extracurricular activities in order to push them to a high level of academic success, believing that this reflects successful parenting. Therefore, the parents tend to be achievement-driven, and discipline their children to emphasize the importance of family obligation and academic success. They ascribe strength rather than fragility to their children and believe that what they offer to their children is the best. Their children's own desires and preferences are usually over-ridden.

Tiger parents are therefore often criticized for their excessive control, harshness, and high demand for unquestioning obedience, with little to no concern for their children's needs or emotional well-being (Juang, Qin, & Park, 2013). Although it may be another way of the parents expressing care and concern by providing instrumental support rather than displaying warmth verbally or giving support emotionally, tiger parenting is more likely to produce

poorly adjusted children and it is associated with poor psychological outcomes in children. Kim et al. (2013) found that children with tiger parents are associated with a higher level of academic pressure, hostility, shaming, depressive symptoms, and alienation from parents than children with other types of parents. Although the term tiger parents is recently popularized, its precise definition and meaning is still debatable since its origin was based on a parent's memoir instead of empirical research. Because of its strict demands and controls on their children with less outward affection and verbal expression of love, tiger parenting was treated as comparable with some aspects of authoritarian parenting as practiced in Western societies, even though the term is relatively new (Kim et al., 2013). Chan et al. (2009) and Xu et al. (2005) viewed tiger parenting as the combination of authoritative (warm) and authoritarian (punitive) parenting profiles.

2.4. Positive psychology

Of course, adolescent adjustment nowadays is multifaceted; not all children of tiger parents have signs and symptoms of mental disorders, such as anxiety symptoms (Chua, 2011). This means that children are not only affected by the characteristics of parenting styles, but may also be affected by some individual factors that may moderate the onset of child psychopathology. Positive psychology is regarded as positive human functioning that promotes positive mental health (Aspinwall & Tedeschi, 2010). It has been found to be effective for moderating the relationship between parental depression and child anxiety (Tam et al., 2017) and the relationship between parenting styles and the child's suicidal ideation (Lo, Kwok, Yeung, Low, & Tam, 2017). Positive psychological traits are thus regarded as the personal power to moderate the link between parental quality and child development. It is therefore valuable, in the present study, to examine if building positive emotions and

psychological strengths can alleviate the severity of a child's anxiety symptoms resulting from tiger parenting with excessive control.

Positive psychological traits are mainly divided into six core domains that include virtues, happiness, growth and fulfillment of capacities, life quality, thriving and flourishing, and positive functioning under conditions of stress (Kwok, Yeung, Low, Lo, & Tam, 2015; Schrank, Brownell, Tylee, & Slade, 2014). Since the subjects of this study were children in primary school Grade 4–6 with 10 to 12 years old, other than the domain of thriving and flourishing (one's success in important life aspects), optimism (positive functioning under conditions of stress and happiness), life satisfaction (life quality), hope (virtue), and gratitude (growth and fulfillment of capacities) were included as potentially the most important moderators in the link between parenting styles and child anxiety. Positive psychological traits, such as optimism, are predictive of positive outcomes (Carver, Scheier, Miller, & Fulford, 2009). They have been found to be associated with better coping skills, a positive lifestyle, and better resilience (Chida & Steptoe, 2008).

Optimists tend to anticipate the good in the future, they use and formulate adaptive coping strategies frequently, and they perceive greater capability to deal with traumatic crises (Scarpa, Haden, & Hurley, 2006). Another trait, known as life satisfaction, is the individual's perceived satisfaction with his/her position in life (Diener, Emmons, Larsen, & Griffin, 1985). Studies have shown that depressive symptoms are negatively associated with life satisfaction, suggesting that individuals with no psychological symptoms feel satisfied with their lives (Schnurr, Hayes, Lunnery, Mafall, & Uddo, 2006). It may be that life satisfaction has the same moderating effect on child anxiety. Hope, which is also one of the stable positive motivational states (Snyder, 1999), has been shown to be significant in buffering the

association between coping style and psychological adjustment in response to stressful life events (Peleg, Barak, Harel, Rochberg, & Hoofien, 2009). A hopeless person reports greater distress, a more severe level of depression and anxiety, more doubts about their capability to attain goals, and lower psychological well-being (Hassija, Luterek, Gainey, Moore, & Simpson, 2012). The last trait, gratitude, is the tendency toward “noticing and appreciating the positive in life” (Wood, Froh, & Geraghty, 2010, p. 891). People who have a sense of gratitude have a positive view of life and feel a connection with humanity. They usually have more positive emotions, lower perceived stress, experience better well-being, have a more positive view of life, and have less depressive and anxiety symptoms (Emmons & Stern, 2013).

3. Methods

3.1. Participants

The sample of this study comes from a primary school and was invited by a local non-governmental organization (NGO) that provides stationing social work service to the school. School social work targets at whole-school students and serves a preventive, developmental as well as remedial function through provision of casework, group work and programs. All the families with children in primary school Grade 4–6 received the invitation and 447 families agreed to take part in this study. The study was approved by the research ethics committee of the affiliated university. Participating parents signed consent forms for their children as well as for themselves, indicating their willingness to engage anonymously and voluntarily and they were acknowledged that non-participation would not affect the services they were enjoying in the NGO. There is a cover letter in the first page of the child-version questionnaire, describing the purpose of the study and the ethical principles of confidentiality and voluntary participation. The children signed to indicate their agreement to participate in this study. The present study's results are based on children's self-report data. Eight children's questionnaires were discarded due to a large percentage of missing data (over 10%), leaving 439 valid child version questionnaires in the analysis. The description of the demographics is shown in Table 1.

Table 1
Sample demographics (N = 439).

Demographics	Breakdown	%
Age (Mean = 10.06, SD = 1.76)	8 or below	14.4
	9	20.2
	10	22.4
	11	26.8
	12 or above	16.2
Gender	Male	46.7
	Female	53.3
Religious belief	With religious belief	41.2
	No religious belief	58.8
Living with parents or not	Living with both parents	68.8
	Living with single parents/Not living with parents	31.2
Father's education level	Secondary or below	65.7
	College or above	34.3
Mother's education level	Secondary or below	66.7
	College or above	33.3

3.2. Measures

3.2.1. Tiger parenting style

Children were asked to answer six items related to their parents' parenting style with controlling characteristics. The items were adopted from the control dimension of the Chinese Parenting Inventory (Stewart et al., 1998). The wording in the child version asks about the extent to which they perceive their parents to be controlling (e.g., “My parent is restrictive/controlling of me.”). Participants responded on a 5-point Likert scale to reveal the degree to which they agree with the statements, ranging from 1 “strongly disagree” to 5 “strongly agree.” The item ratings were averaged to compute the total score. A higher score in the child version denotes a child's stronger perception that their parents use the tiger parenting style. The internal consistency of the scale in the current study was $\alpha = 0.80$.

3.2.2. Optimism

The Revised Life Orientation Test (LOT-R) developed by Scheier, Carver, and Bridges (1994) was chosen to measure the participants' level of optimism. The LOT-R has been proved as a valid, and reliable self-report measure to properly assess optimism in children and adolescents (Monzani, Steca, & Greco, 2014). The Chinese version of the tool, which was translated by Lai, Cheung, Lee, and Yu (1998), was adopted without the filler items.

Participants were asked to indicate the extent to which they agreed with each of six items on a 5-point Likert scale, ranging from 1 “strongly disagree” to 5 “strongly agree.” Three of the items were positively phrased (e.g., “In uncertain times, I usually expect the best”), whereas the other three were negatively phrased (e.g., “I hardly ever expect things to go my way”).

The total optimism score was computed by averaging the ratings for the positively phrased items and the reversed ratings for the negatively phrased items. A higher score reflects higher optimism in the individual. The LOT-R has clear construct and convergent validity (Lai,

1997), and it correlates moderately with positive and negative affect in the Chinese Affect Scale (Hamid & Cheng, 1996) and the Chinese Hopelessness Scale (Shek, 1993). The Cronbach's alpha of the optimism index in this study was .70.

3.2.3. Life satisfaction

Life satisfaction was measured by the Satisfaction With Life Scale (Diener et al., 1985). The Chinese version of this scale was adopted in previous research with good reliability and validity for children and adolescents (Shek, 2007b). Participants were asked to indicate the extent to which they agreed with each of five statements on a 7-point Likert scale (e.g., “In most ways, my life is close to ideal”), with 1 being “strongly disagree” and 7 being “strongly agree.” Item ratings were averaged for the total score, with a higher score denoting higher life satisfaction. The internal consistency of this scale was $\alpha = 0.82$.

3.2.4. Hope

The Chinese version of the Children's Hope Scale was used to assess perceived hope in a child (Snyder et al., 1997). It was found in Chow (2010) to be both internally and temporally reliable. Children were asked how often they had the experience or feeling mentioned in the statements such as “When I have problems, I can find different ways to solve them” and they rated the frequency using a 6-point Likert scale, ranging from 0 “none of the time” to 6 “all of the time.” The child's hope score was computed by averaging all the item ratings, with a higher score denoting higher hope in the child. Snyder et al. (1997) demonstrated the good convergent validity of the tool, showing a positive association with perceived competence and self-worth (as measured by the subscales of the Self-Perception Profile for Children; Harter, 1985). The internal consistency of this scale in this study was $\alpha = 0.87$.

3.2.5. *Gratitude*

McCullough, Emmons, and Tsang's (2002) Gratitude Questionnaire-6 (GQ-6) was used to measure the self-reported gratitude of the participants. They were asked to report how much they agree with each of the statements about gratitude, such as "I have so much in life to be thankful for," on a 7-point scale ranging from 1 "strongly disagree" to 7 "strongly agree." Two questions were reverse coded. A higher averaged score of all the item ratings indicates a higher level of gratitude. The GQ-6 has shown satisfactory psychometric properties (McCullough et al., 2002). The scale has been proved to be valid and reliable for children (Froh et al., 2011) and Chinese people (Chen, Chen, Kee, & Tsai, 2009). The Cronbach's alpha of this scale was .72.

3.2.6. *Anxiety*

The participants' anxiety level was measured by the Chinese version of the anxiety subscale of Zigmond and Snaith's (1983) Hospital Anxiety and Depression Scale (HADS). The Chinese translation and validation of the Chinese version of the HADS was conducted by Leung, Ho, Kan, Hung, and Chen (1993) in a Hong Kong population. The Chinese HADS has been used extensively in multiple studies with children and adolescents and was proved to be reliable and valid (Kwok, Gu, & Cheung, 2017; Tam et al., 2017). The anxiety subscale of the HADS consists of seven items that evaluate anxiety-related symptoms or experiences. Participants rated the items on a 4-point scale ranging 0 to 3. Five items needed to be reverse coded. A higher summated score for this aspect indicates a higher level of anxiety. The cutoff point for probable anxiety cases was 11 or above (Bjelland, Dahl, Haug, & Neckelmann, 2002). The internal consistency of this scale was $\alpha = 0.77$.

3.2.7. Covariates

Previous research has shown that demographic variables such as gender, age, family type, and religious belief were related to child anxiety (Harmon, Langley, & Ginsburg, 2006; Hudson et al., 2013; Strohschein, 2005). Hence, they were taken into account in the data analyses.

3.3. Data analysis

In order to explore if the positive psychology aspects (namely, optimism, life satisfaction, hope, and gratitude) moderate the relationship between the tiger parenting style and the child's anxiety level, a moderation analysis was performed using the PROCESS macro that can be operated in the SPSS environment. Simple slope analysis (Aiken & West, 1991) and regions of significance testing (Preacher, Curran, & Bauer, 2006) were also conducted to examine the interactions of the moderating effects. Other analyses concerning descriptive statistics and correlation analysis were performed using IBM SPSS Statistics version 23. Given the multiple comparisons for the moderation tests, Bonferroni correction (Miller, 1966) was used to protect against Type I errors.

4. Results

The inter-correlations of the variables in the analysis are shown in Table 2. As expected, all the positive psychology aspects in the analysis were negatively and significantly correlated with anxiety, while the tiger parenting style was positively and significantly associated with anxiety. Sixty-four children reported an anxiety score of 11 or above, which is 14.58% of the total sample.

Table 2
Inter-correlations between variables and their corresponding descriptive statistics (N = 439).

	TIG	ANX	OPT	LS	HOP	GRA
TIG	–					
ANX	0.38 ***	–				
OPT	–0.14 **	–0.25 ***	–			
LS	–0.24 ***	–0.36 ***	0.48 ***	–		
HOP	–0.19 ***	–0.27 ***	0.48 ***	0.57 ***	–	
GRA	–0.33 ***	–0.37 ***	0.38 ***	0.44 ***	0.47 ***	–
Mean	2.89	6.53	3.62	4.89	2.96	4.76
SD	0.91	3.92	0.84	1.32	1.12	0.91

Note. TIG = Perceived use of tiger parenting style, ANX = Anxiety, OPT = Optimism, LS = Life satisfaction, HOP = Hope, GRA = Gratitude.

** $p < .01$.

*** $p < .001$ (2-tailed).

The results of the moderation analysis are shown in Table 3. Four moderation models were tested: optimism as moderator (model 1), life satisfactory as a moderator (model 2), hope as a moderator (model 3), and gratitude as a moderator (model 4). In the four moderation models, model 1 and model 4 showed significant interaction effects. In Model 1, the interaction term of optimism \times tiger parenting yielded an 1% increase in the total R^2 ($b = -0.42$, $SE = 0.21$, $t = -2.00$, $p < .05$), whereas in Model 4, the interaction term of gratitude \times tiger parenting also yielded an 1% increase in the total R^2 ($b = -0.42$, $SE = 0.19$, $t = -2.22$, $p < .05$).

Table 3

Models to test positive psychology variables as a moderator in the relationship between tiger parenting style and child anxiety, with demographics controlled (N = 439).

	<i>b</i>		<i>SE</i>	<i>t</i>	<i>b</i>		<i>SE</i>	<i>t</i>
<i>Model 1: Optimism as moderator</i>								
Optimism	1.43		0.51	0.43	0.31		0.66	0.48
Tiger parenting	2.47	***	0.09	2.97	2.99	***	0.80	3.74
Optimism × Tiger parenting	/				-0.42*		0.21	-2.00
Gender	-0.19		0.34	-0.57	-0.22		0.33	-0.66
Age	0.25		0.10	2.36	0.25		0.10	2.44
Religious belief	1.14	*	0.39	3.36	1.18	*	0.37	3.22
Live with parents	-0.21		0.19	-0.47	-0.19		0.38	-0.49
<i>R</i> ²	0.21***				0.22***			
<i>R</i> ² Change					0.01			
<i>Model 2: Life satisfaction as moderator</i>								
Life satisfaction	-0.88		-0.30	-2.60	-0.60		0.39	-1.54
Tiger parenting	1.25	*	0.29	6.35	1.70	*	0.63	2.69
Life satisfaction × Tiger parenting	/				-0.09		0.12	-0.75
Gender	-0.10		0.32	-0.31	-0.30		0.32	-0.94
Age	0.26	*	0.12	2.65	0.27	*	0.10	2.77
Religious belief	1.17	*	0.34	3.32	1.16	*	0.36	3.27
Live with parents	-0.17		0.19	-0.90	-0.06		0.37	-0.17
<i>R</i> ²	0.26***				0.26***			
<i>R</i> ² Change					/			
<i>Model 3: Hope as moderator</i>								
Hope	-1.73		0.22	-4.59	-1.04		0.49	-2.14
Tiger parenting	1.38	*	0.20	6.87	1.10	*	0.49	2.23
Hope × Tiger parenting	/				0.09		0.15	0.59
Gender	-0.08		0.11	-0.42	-0.18		0.33	-0.53
Age	0.28	*	0.13	2.78	0.29	*	0.10	2.86
Religious belief	1.40	**	0.39	3.47	1.25	**	0.37	3.42
Live with parents	-0.04		0.08	-0.10	-0.03		0.38	-0.07
<i>R</i> ²	0.22***				0.22***			
<i>R</i> ² Change					/			
<i>Model 4: Gratitude as moderator</i>								
Gratitude	-0.12		0.40	0.29	-0.15		0.58	-0.27
Tiger parenting	3.14	**	0.20	5.55	3.11	**	0.93	3.33
Gratitude × Tiger parenting	/				-0.42*		0.19	-2.22
Gender	-0.15		0.34	-0.86	-0.17		0.32	-0.52
Age	0.30	*	0.10	2.95	0.31	*	0.10	3.15
Religious belief	1.14	**	0.21	5.55	1.63	**	0.36	4.55
Live with parents	0.01		0.20	0.02	0.01		.37	.02
<i>R</i> ²	0.26***				0.27***			
<i>R</i> ² Change					0.01			

* $p < .013$; with Bonferroni correction, $p < .05$.

** $p < .003$; with Bonferroni correction, $p < .01$.

*** $p < .0003$; with Bonferroni correction, $p < .001$.

However, after Bonferroni correction, these moderation effects were non-significant. Hence, slope analyses were conducted to further probe the interaction effects. As shown in Fig. 1, the three slopes represent the effect of perceived tiger parenting on child anxiety for children with high optimism (+1 SD above the mean), medium optimism (the mean), and low optimism (-1 SD below the mean). Following Bonferroni correction, the slopes were significant at low and medium level of optimism but not at the high level of optimism ($b = 1.72, p < .001$; $b = 1.28, p < .001$; and $b = 0.84, p > .013$, respectively). Children with higher optimism showed fewer anxiety symptoms than those with lower optimism, despite the level of tiger parenting.

Similarly, in Fig. 2, the slopes were significant at low and medium level of gratitude but not at the high level of gratitude ($b = 1.48, p < .001$; $b = 1.09, p < .001$; and $b = 0.70, p > .013$,

respectively). Children with higher gratitude showed fewer anxiety symptoms than those with lower gratitude, despite the level of perceived tiger parenting. Hence, the results showed that children's optimism and gratitude moderated the effect of tiger parenting on child anxiety.

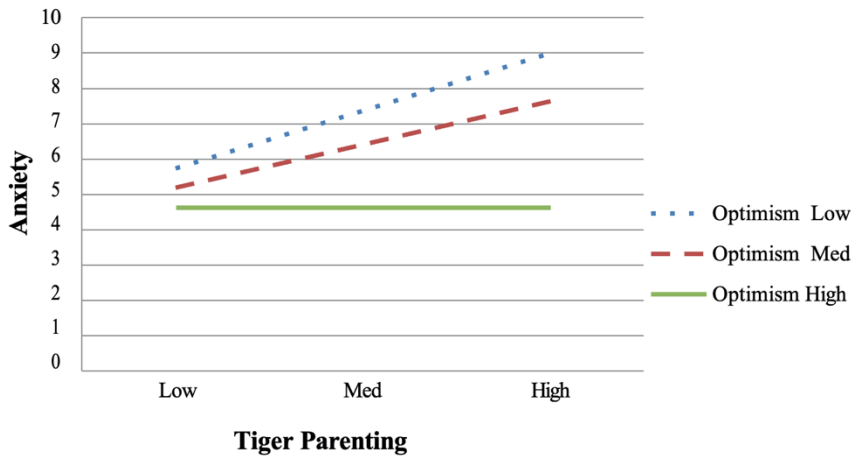


Fig. 1. Graph illustrating the moderating effect of optimism in the relationship between tiger parenting style and child anxiety.

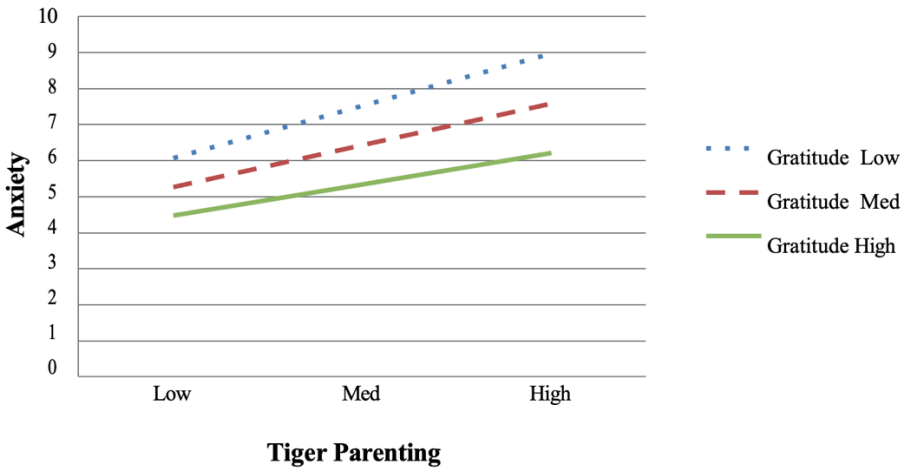


Fig. 2. Graph illustrating the moderating effect of gratitude in the relationship between tiger parenting style and child anxiety.

5. Discussion

This study examined the moderating effect of positive psychological traits on the relationship between tiger parenting and child anxiety. Four hundred and thirty-nine children from a Hong Kong Chinese sample were assessed in a local NGO. As expected, the results suggest that child-perceived tiger parenting has significant positive associations with child anxiety, and the four positive moderators of optimism, life satisfaction, hope, and gratitude are negatively associated with child anxiety, which lends support to the first and second hypotheses. We also found that the effect of tiger parenting on child anxiety can be moderated by optimism and gratitude. Thus, the third hypothesis is partially supported. These findings reveal that the parenting style provides the context for the onset of child anxiety, whereas the children's positive psychological traits can help to release their anxiety level. With the promising effect of positive psychological traits, such as optimism and gratitude, the influence of tiger parenting on child anxiety can be alleviated.

Consistent with the prediction of Hypothesis 1 tiger parenting was found to be a positive predictor of child anxiety. Children with tiger parents felt more anxious than children with other types of parents. This finding is consistent with previous research that suggests that negative parenting is significantly associated with negative thoughts, dysfunctional attitudes, and an increased risk of suicidal ideation in children (Lo et al., 2017; Nguyen, 2008). Tiger parents usually exhibit high levels of overcontrolling behaviors, such as watching their child carefully or demanding to know what their child is doing at any time, which may cause their children to perceive higher levels of threat in ambiguous situations (Aspinwall & Tedeschi, 2010). Although tiger parents may always believe that their harsh and strict regulations on their children is another way of loving to help them to win at the start line, the findings of this study reveal empirically that, at the same time, it is risky of adding additional stress and

anxiety to their early developmental stage. To convince parents of their impact on their children, intensive research both with clinical and non-clinical cases is still required to elucidate tiger parenting patterns for its association with child psychopathology.

Regarding Hypotheses 2 and 3, this study provides empirical evidence of the negative association between positive psychology and child anxiety. In particular, optimism and gratitude among children can positively and significantly moderate the anxiety introduced by tiger parents. Thus, these findings extend the current understanding of the impact of positive strengths on preventing the onset of anxiety disorder resulting from a harsh parenting style. In this study, positive strengths were shown to be helpful for maintaining healthy psychological functioning and minimizing the risk of anxiety disorder among children. They can help to lower the fear and expectations of negative consequences resulting from anxiety, and in return, children can develop better coping skills and be open to positive social support, as depicted in Hou, Law, Yin, and Fu (2010). More importantly, children with high levels of optimism and gratitude are also more likely to have better acceptance and understanding of their negative parenting experiences than others. These results seem to confirm the previous literature that indicates that psychological resilience can promote supportive, forgiving, and empathic thinking toward others (McCullough, Huebner, & Laughlin, 2000).

The findings of this study also further suggest that personal factors may play a part in moderating the parental impact on children. The positive effects of optimism and gratitude can be applied to explain why some children are less affected by their harsh parenting patterns than others. For instance, optimistic personalities have long been interpreted in light of adaptive coping strategies, including positive reinterpretations and active problem-solving (Stanton, Danoff-Burg, & Huggins, 2002). Thus, better coping strategies might avoid the

expansion of negative thinking, contributing in turn to better psychological functioning. Given the strong moderating effect of positive strengths on child anxiety, it will be worthwhile in future studies to extend the examination to their effects on alleviating other types of mental health disorders among children as well as other functional targets. Nurturing children with positive psychology can be an effective strategy to alleviate their psychological symptoms. As such, the efficacy of a positive psychology program that is a preventive intervention for child anxiety is worth considering. In this study, life satisfaction (one's judgement of his/her subjective well-being/life quality) and hope (one's positive motivation of accomplishing his/her life objectives) did not show any significant results in moderating the association between tiger parenting and child anxiety. Since subjects of this study were children studying grades 4 to 6, they might be too young to develop satisfaction and hope in life. However, on the basis of their strong negative association with child anxiety, further study to explore their possibility in moderating the relation between parenting and child psychopathology should not be ignored.

5.1. Limitations

Several limitations of the current study warrant discussion. First, the participants were a Chinese sample from primary schools in Hong Kong. There is evidence that Asian people emphasize family values and tend to adopt a strict parenting “law” more than people in the West (Hou et al., 2010). As such, the sociocultural characteristics of the present sample may limit the generalizability of the findings to tiger parenting. Second, causal inferences regarding tiger parenting and child anxiety cannot be made in this study due to its cross-sectional design. It is possible that anxiety in children predicts more severe levels of tiger parenting practice. Longitudinal studies should explore this in order to provide support for the prediction and directionality. Moreover, anxiety symptoms and tiger parenting patterns were

measured in the children using questionnaires, but they were community samples and not clinically diagnosed. Although the questionnaires are highly reliable and valid, it is not certain that the children suffered from tiger parenting and anxiety. Follow-up studies using other methodological approaches, including the use of recognized tools to assess tiger parents and child anxiety in clinical samples, are recommended.

5.2. Practice implications

Even with the limitations, the current study has implications for further practice consideration. The present findings suggest that the parenting styles and patterns significantly contribute to child anxiety symptoms, and positive psychological strengths can alleviate such a parental effect. The former finding warns us that a parent education program that alerts parents about the potential association between parenting practice and child mental health problems is important. Both the government and helping professionals can play a part in raising parents' awareness of how these factors may elicit child mental and psychological problems. More specifically, positive parenting, which involves a balanced style of granting warmth, respect, autonomy, communication, and support without ignoring appropriate levels of control and regulation, has been found to be positively associated with greater child adjustment and increased competence (Schofield, Conger, & Neppel, 2014). Therefore, equipping parents who have high tiger-parent tendencies with positive parenting techniques may be helpful for protecting their children from the risk of developing anxiety sensitivity and anxiety disorders in the long run.

The latter finding of the moderating role of children's positive psychological strengths (i.e., optimism and gratitude) for alleviating child anxiety introduced by tiger parenting practice also reminds us of the importance of our work on the side of the children. Sometimes, we

may not be able to control which types of parenting that the parents apply to their children. However, it is still possible to nurture children in many ways with sufficient internal and positive psychological strengths to help them to overcome the stress and unhappiness that they suffer in life. In Hong Kong, training programs, which is receiving increased attention and can be variously employed in schools, communities, or family contexts, equipping children with positive psychological strengths are purposefully developed as a strategy for cultivating children with character strengths, positive emotions, attitudes, and interpersonal interactions, which in return can moderate the effects of negative parenting, particularly on child anxiety. Of course, the synergistic effects will be highest if both the parents and children can develop high levels of positivity in life and in their treatment of each other. However, to make this possible, it will not be an easy task. Clinicians should work competently and sensitively on the possible negative impact of parenting patterns, as well as on the buffers of children's positive psychological variables, on treatment outcomes in children.

6. Conclusion

The current study contributes to advancing research into the relationship between parenting practice and children's psychological development and well-being. Instead of focusing solely on the interactions between parent and child, we examined the moderators of positive change, such as optimism and gratitude, in the association between tiger parenting and child anxiety. The results suggest that those significant moderators may be contributory for preventive intervention efforts targeting children with anxiety symptoms that result from tiger parenting. The enhancement of the children's positive psychological traits may be facilitative to alleviate their anxiety symptoms and the negative effects introduced by the parents, and it can continue to be beneficial in the long run as the children will have better coping skills in their interaction with their tiger parents. Insight into child anxiety and tiger parenting can aid the

prevention and intervention efforts to prevent psychopathology in children. Apart from this, considerable efforts should be made on behalf of both the parents and children to promote the benefits of positive parenting and positive psychology in cultivating children with healthy psychological development. Preventive intervention should be delivered as early as possible to avoid the growing detrimental tiger parental effects.

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