

**CHILD DISCIPLINE AND MALTREATMENT IN
ZHEJIANG PROVINCE OF CHINA:
PERCEPTIONS, RISK FACTORS, EXPERIENCES AND
IMPACTS**

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Declaration

I, Yanyan Ni confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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ABSTRACT

Objectives: To explore multiple aspects of child maltreatment in China, including perceptions, risk factors, experiences and negative effects, with a focus on the role of parental aggression and parental childhood maltreatment, as well as the independent effects of different types of maltreatment on child emotional and behavioural problems.

Methods: The study sites were urban and rural areas of Zhejiang Province, China. A mixed-method design was used: semi-structured interviews with 11 young adults, 21 parents and nine children, three focus group discussions with 22 children, and questionnaire surveys with 1,201 young adults, 576 parents and 791 children.

Results: Physical and emotional maltreatment, before age 18, were reported by 81% and 82% of young adults respectively. Personal experience of emotional maltreatment was generally perceived as more harmful than physical. Lifetime prevalence of maltreatment reported by parents and children was - physical: 56% vs 50%; emotional: 75% vs 59%; non-contact punishment: 21% vs 18%. 21% of the children reported experiencing three or four types of maltreatment (including witnessing domestic violence). Parents with higher aggressive tendencies were more likely to maltreat children. Parental aggression was an explanatory factor for the intergenerational transmission of maltreatment. Emotional maltreatment was consistently associated with a higher risk of child emotional and conduct problems. Severe physical maltreatment showed the strongest association with abnormal conduct. Moderate physical maltreatment was independently associated with emotional problems. There was an increased risk with multiple types of maltreatment. The qualitative research

adds useful insights into the perceptions of child maltreatment in China from different perspectives. Children's and young adults' perceptions of maltreatment experiences were focused on parents' intentions. Most parents perceived physical punishment and verbal aggression as necessary in disciplining children. Some parents were more reflective of their aggressive behaviours towards children and were more willing to change their disciplinary methods.

Conclusions: The pervasiveness of child maltreatment and the considerable harm caused to children and young adults suggest an urgent need for raising public awareness, educating parents and introducing a formal child protection system in China.

IMPACT STATEMENT

The UN has launched a new Agenda for Sustainable Development which calls for ending all forms of violence against children. Yet child protection remains a low priority in China. Physical punishment and verbal aggression are widely considered to be legitimate means of disciplining children. This research utilised a mixed-method design to explore child discipline/maltreatment in Zhejiang Province, China, with the field work being undertaken in collaboration with Zhejiang University. It has added useful insights into the perceptions, risk factors, experiences and impacts of child discipline/maltreatment and has proposed important recommendations for child protection policies and practices in China.

Contributions to the literature. Firstly, this research extensively examined child maltreatment of multiple types committed by various perpetrators and collected information from multiple sources: young adults, parents and children, indicating high levels of child maltreatment in China. Secondly, this is the first study from mainland China to examine the relationship among three factors: parental aggression, parental childhood maltreatment, and maltreatment of children. Thirdly, this research confirms previous findings of the negative effects of different types of child maltreatment. More importantly, it throws light on the individual effects of each type of child maltreatment. Lastly, this research adds to the sparse number of qualitative studies on sensitive topics in China.

Disseminating outputs. I have written three first-author papers for publication in peer-reviewed journals and published two conference abstracts in *The Lancet*. The key findings were presented to professionals in the field of child maltreatment at one national and four international conferences and were shared with UCL academics and non-academics at the 2016 UCL Global Health Day. The next step is to write two or more publications and to disseminate the research findings through social-media platforms targeted at a Chinese audience.

Impact on child protection policies and practices in China. Given the pervasiveness of child maltreatment in China, this research has proposed feasible recommendations, including a universal population-level media information campaign to raise public awareness and to educate parents about appropriate methods for disciplining children and negative effects of child maltreatment. There is also an important need to introduce a formal nationwide child protection system, including identifying an agency taking formal responsibility for abused children, expanding existing placement services, and training professionals to identify and report suspected cases.

The finding of no obvious differences in the experiences of punishing/mistreating children between parents and professionals is of particular concern. Researchers from Zhejiang University have initiated a new project with aims to train professionals on identifying and reporting suspected child abuse cases. A baseline survey was conducted with 1,410 paediatricians/nurses in hospitals in Zhejiang Province. I have contributed to the design of the questionnaire and am taking responsibility for the data analysis. The findings will be used to inform the content of the training programmes and will be written up for publication.

Impact on participants. This research provided an opportunity for participants to reflect on their personal experiences and on the Chinese social context. It received positive feedback and to some extent raised awareness of child maltreatment among them. Many children and young people found it helpful to talk to someone about their experiences and views. Many parents and young people expressed that the issue of child discipline/maltreatment was of great importance in China deserving more attention and they were pleased to know research efforts being made to tackle it.

PUBLICATIONS BASED ON THIS THESIS

1. Ni Y, Zhou X, Hesketh T. Child maltreatment in China: comparison of parent and child reports. *The Lancet*. 2017 Dec 11;390:S55.(Conference abstract)
2. Ni Y, Hesketh T. Child maltreatment in China: a cross-sectional study of prevalence and attitudes among young adults. *The Lancet*. 2015 Oct 31;386:S52.(Conference abstract)
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PRESENTATIONS BASED ON THIS THESIS

1. Child maltreatment in China: a qualitative study of experiences and perceptions among young adults (*BASPCAN 10th International Congress 2018, Warwick University, Coventry, oral presentation*)
2. Impact of child maltreatment on emotional symptoms and conduct problems: experience of Chinese children (*ISPCAN European Regional Meeting 2017, The Hague, oral presentation*)
3. Child maltreatment in China: comparison of parent and child reports (*Lancet-CAMS Health Summit 2017, Beijing, poster presentation*)
4. Child maltreatment in China: a cross-sectional study of prevalence and attitudes among young adults (*Lancet-CAMS Health Summit 2015, Beijing, poster presentation*)
5. Child maltreatment in China: a qualitative study of experiences and attitudes among Chinese children (*ISPCAN Asia Pacific Regional Conference on Child Abuse and Neglect 2015, Kuala Lumpur, oral presentation*)

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TABLE OF CONTENTS

ABSTRACT	3
IMPACT STATEMENT	5
PUBLICATIONS BASED ON THIS THESIS	7
PRESENTATIONS BASED ON THIS THESIS.....	7
ACKNOWLEDGEMENTS	8
LIST OF TABLES.....	13
LIST OF FIGURES	15
LIST OF ABBREVIATIONS.....	16
CHAPTER 1 BACKGROUND	17
1.1 Child Maltreatment: The Global Context	17
1.1.1 Child Maltreatment in All Settings	17
1.1.2 Child Maltreatment in the Home and Family.....	18
1.1.3 Prohibiting Corporal Punishment in the Home Setting	19
1.2 Child Maltreatment: The Chinese Context.....	22
1.2.1 Social Context in China.....	22
1.2.2 Legislative Framework in Mainland China	23
1.2.3 Child Protection System in Mainland China.....	26
1.3 Aims and Research Questions	28
1.4 Structure of This thesis	29
CHAPTER 2 THEORETICAL FRAMEWORK OF CHILD MALTREATMENT..	31
2.1 The Ecological Model of Child Maltreatment	31
2.2 An Ecological-Transactional Model of Child Maltreatment	35
2.3 Contributions of the Theoretical Framework to This Research	37
CHAPTER 3 LITERATURE REVIEW OF CHILD MALTREATMENT IN CHINA	
.....	40
3.1 Background of Literature Review.....	40
3.2 Search Strategy.....	40

3.3 Approaches to Critical Appraisal of the Literature.....	45
3.4 Characteristics of Studies Included in the Review.....	46
3.4.1 Studies of Prevalence and Contributing Factors	46
3.4.2 Studies of Consequences	47
3.5 Prevalence of Child Maltreatment	62
3.5.1 Prevalence of Physical and Emotional Maltreatment	62
3.5.2 Explanations for Wide Range in Prevalence Rates	63
3.5.3 Cross-cultural Comparison	67
3.6 Contributing Factors of Child Maltreatment.....	67
3.6.1 Ontogenic Development	68
3.6.2 Microsystem	71
3.6.3 Exosystem.....	76
3.7 Consequences of Child Maltreatment.....	77
3.7.1 Mental Health Outcomes.....	78
3.7.2 Health Risk Behaviours.....	83
3.7.3 Aggression/Aggressive tendencies.....	85
3.7.4 Intimate Partner Violence.....	85
3.7.5 Physical Health Outcomes.....	85
3.8 Overview and Research Gaps in the Literature	86
3.9 Contributions of the Literature Review to This Research	87
CHAPTER 4 METHODS.....	90
4.1 Study Design: Mixed-method Research	90
4.1.1 What Is Mixed-method Research?.....	90
4.1.2 Mixed-method Design in This Research	91
4.2 Study Setting: Zhejiang Province.....	92
4.3 Study Populations.....	95
4.4 Ethical Issues	96
4.4.1 Ethical Considerations	96
4.4.2 Reflections on Ethical Issues	98
CHAPTER 5 EXPERIENCES AND PERCEPTIONS OF CHILD MALTREATMENT AMONG YOUNG ADULTS.....	100
5.1 Background	100
5.2 Methods	100
5.2.1 Sampling Strategy.....	100
5.2.2 Procedure.....	101
5.2.3 Measurement	101
5.2.4 Data analysis.....	103
5.3 Results	103
5.3.1 Socio-demographic Profile.....	103
5.3.2 Experience of Childhood Maltreatment.....	105
5.3.3 Characteristics of Childhood Maltreatment.....	108
5.3.4 Perceptions of Childhood Maltreatment.....	109

5.3.5 Perceptions of Harm	110
5.5 Summary of Chapter 5.....	112
CHAPTER 6 ROLE OF PARENTAL AGGRESSION AND PARENTAL CHILDHOOD MALTREATMENT EXPERIENCE	113
6.1 Background	113
6.2 Methods	115
6.2.1 Sampling Strategy.....	115
6.2.2 Procedure.....	116
6.2.3 Measures	117
6.2.4 Data analysis.....	120
6.3 Results	121
6.3.1 A Summary of Socio-demographic Profile and Exposures.....	121
6.3.2 Experience of Maltreatment of Children.....	123
6.3.3 Socio-demographic Associations with Child Maltreatment.....	125
6.3.4 Parent Aggression and Maltreatment of Children.....	125
6.3.5 Parental history of childhood maltreatment and maltreatment of children.....	128
6.5 Summary of Chapter 6.....	128
CHAPTER 7 EFFECTS OF MALTREATMENT IN THE HOME SETTING ON EMOTIONAL AND BEHAVIOURAL PROBLEMS IN CHILDREN	130
7.1 Background	130
7.2 Methods	131
7.3 Results	135
7.3.1 A Summary of Socio-Demographic Factors, Exposure and Outcome	135
7.3.2 Socio-demographic Associations with Child Maltreatment.....	137
7.3.3 Impacts of Physical Maltreatment.....	137
7.3.4 Impacts of Emotional Maltreatment	138
7.3.5 Impacts of Non-contact Punishment.....	138
7.3.6 Impacts of Witnessing Domestic Violence.....	138
7.3.7 Sex Difference.....	141
7.3.8 Cumulative Effects	141
7.4 Summary of Chapter 7.....	141
CHAPTER 8 EXPERIENCES AND PERCEPTIONS OF CHILD MALTREATMENT FROM A QUALITATIVE PERSPECTIVE	143
8.1 Background	143
8.2 Methods	143
8.2.1 Sampling Strategy.....	143
8.2.2 Topic Guides	145
8.2.3 Procedure.....	146
8.2.4 Data analysis.....	148
8.3 Results	150
8.3.1 Profile	150

8.3.2 Young People: Themes and Quotations	151
8.3.3 Children: Themes and Quotations	163
8.3.4 Parents: Themes and Quotations	169
8.4 Summary of Chapter 8.....	175
CHAPTER 9 DISCUSSION	176
9.1 Key Research Findings	176
9.1.1 High levels of child maltreatment.....	176
9.1.3 Role of parental aggression and childhood experience of maltreatment.....	183
9.1.4 Effects of different types of child maltreatment.....	185
9.1.5 Young adults' perceptions of childhood experiences of maltreatment	187
9.1.6 Children's perceptions of childhood experiences of maltreatment	191
9.1.7 Parents' perceptions of experiences of disciplining/punishing children.....	192
9.2 What This Thesis Adds to The Literature	195
9.2.1 Contributions to Knowledge	195
9.2.2 Contributions to the Theoretical Framework.....	197
9.3 Strengths and Limitations.....	200
9.4 Implications for Future Research.....	203
9.5 Reflections on where to draw the line between 'acceptable' discipline and dangerous maltreatment.....	206
9.6 Implications for Policy and Practice	208
REFERENCES	213
APPENDICES.....	235
Appendix 4-1 Ethical Approval.....	235
Appendix 5-1 Information Sheet and Questionnaire – Young Adult's Version	238
Appendix 6-1 Information Sheet/Invitation Letter for Questionnaire Survey with Parents....	250
Appendix 6-2 Consent Form for Questionnaire Survey with Parents	253
Appendix 6-3 Questionnaire – Parent's Version	255
Appendix 7-1 Information Sheet and Questionnaire – Child's Version.....	267
Appendix 8-1 Topic Guides.....	280
Appendix 8-2 Information Sheet in Qualitative Studies	283
Appendix 8-3 Consent Form in Qualitative Studies	286
Appendix 8-4 Example of an Analysed Transcript.....	288
Appendix 8-5 Themes and Constituent Codes	290
SUPPLEMENTARY TABLES/FIGURES.....	293

LIST OF TABLES

<i>Table 1-1 Definitions of child maltreatment.....</i>	<i>18</i>
<i>Table 1-2 Legislations relevant to child abuse.....</i>	<i>24</i>
<i>Table 3-1 Example items for minor, moderate and severe physical maltreatment.....</i>	<i>41</i>
<i>Table 3-2 Inclusion criteria and exclusion criteria.....</i>	<i>43</i>
<i>Table 3-3 Key methodological points to consider in the appraisal of a study.....</i>	<i>45</i>
<i>Table 3-4 A summary of studies on prevalence and contributing factors of child maltreatment in China.....</i>	<i>48</i>
<i>Table 3-5 A summary of studies on consequences of child maltreatment in China.....</i>	<i>58</i>
<i>Table 4-1 Purposes and justifications for mixed methods.....</i>	<i>90</i>
<i>Table 4-2 Classification of mixed-method designs.....</i>	<i>91</i>
<i>Table 4-3 Mixed-method design in this research.....</i>	<i>92</i>
<i>Table 5-1 Socio-demographic profile of participants.....</i>	<i>104</i>
<i>Table 5-2 Prevalence of childhood maltreatment.....</i>	<i>105</i>
<i>Table 5-3 Age distribution of physical and emotional maltreatment in childhood.....</i>	<i>108</i>
<i>Table 5-4 Frequency of physical and emotional maltreatment in childhood.....</i>	<i>109</i>
<i>Table 5-5 Perceptions of personal experiences of childhood maltreatment.....</i>	<i>110</i>
<i>Table 5-6 Perceived harm caused by childhood maltreatment.....</i>	<i>111</i>
<i>Table 6-1 A summary table of key variables reported by parents.....</i>	<i>122</i>
<i>Table 6-2 Preceding-year prevalence of different forms of child maltreatment reported by parents.....</i>	<i>124</i>
<i>Table 6-3 Associations between parental childhood maltreatment/aggression and physical maltreatment of their children.....</i>	<i>126</i>
<i>Table 6-4 Associations between parental childhood maltreatment/aggression and maltreatment of their children (emotional maltreatment and non-contact punishment).....</i>	<i>127</i>
<i>Table 7-1 Descriptive analysis of key variables.....</i>	<i>136</i>
<i>Table 7-2 Impact of maltreatment on emotional symptoms.....</i>	<i>139</i>
<i>Table 7-3 Impact of maltreatment on conduct problems.....</i>	<i>140</i>
<i>Table 8-1 Demographic background of the participants in the interviews.....</i>	<i>150</i>
<i>Table 8-2 Child participants in each focus group.....</i>	<i>151</i>
<i>Table 8-3 Categories and themes of the qualitative research with young people.....</i>	<i>151</i>
<i>Table 8-4 A summary of types/forms of maltreatment from the qualitative study.....</i>	<i>152</i>
<i>Table 8-5 A variety of children’s behaviours causing maltreatment.....</i>	<i>153</i>
<i>Table 8-7 Themes of the qualitative research with parents.....</i>	<i>169</i>
<i>Table S6-1 Comparing parents’ characteristics between completed and non-completed questionnaires.....</i>	<i>293</i>
<i>Table S6-2 Categories of physical maltreatment.....</i>	<i>294</i>
<i>Table S6-3 Comparison of maltreatment reporting between mothers/fathers and children.....</i>	<i>295</i>
<i>Table S6-4 Validation analysis using maltreatment reported by children.....</i>	<i>298</i>
<i>Table S6-5 Summary statistics for key variables reported by parents.....</i>	<i>299</i>
<i>Table S6-6 Role of parental aggression and childhood maltreatment – original results.....</i>	<i>300</i>

<i>Table S6-7 Associations between parental aggression (subscales) and physical maltreatment of their children.....</i>	<i>302</i>
<i>Table S6-8 Associations between parental aggression (subscales) and emotional maltreatment/non-contact punishment of their children.....</i>	<i>302</i>
<i>Table S7-1 Prevalence of different forms of child maltreatment at home by family members .</i>	<i>303</i>
<i>Table S7-2 Correlations of preceding-year prevalence of child maltreatment by family members and by parents</i>	<i>310</i>
<i>Table S7-3 Impact of maltreatment – results using the cut-offs for a British sample</i>	<i>310</i>
<i>Table S7-4 Summary statistics for key variables reported by children.....</i>	<i>311</i>
<i>Table S7-5 Impact of maltreatment – original results</i>	<i>312</i>
<i>Table S7-6 Impact of maltreatment among boys.....</i>	<i>312</i>
<i>Table S7-7 Impact of maltreatment among girls.....</i>	<i>313</i>

LIST OF FIGURES

<i>Figure 1-1 Percentage of children aged 2 to 14 years who experienced any violent discipline (physical punishment and/or psychological aggression) in the past month.....</i>	<i>20</i>
<i>Figure 2-1 An ecological model of child maltreatment.....</i>	<i>32</i>
<i>Figure 2-2 An Ecological-Transactional Model of Child Maltreatment.....</i>	<i>37</i>
<i>Figure 3-1 Flow chart of search strategy</i>	<i>44</i>
<i>Figure 4-1 Location map: Zhejiang Province</i>	<i>94</i>
<i>Figure 5-1 Common forms of childhood maltreatment by type of perpetrator</i>	<i>107</i>
<i>Figure 8-1 Diagrammatic representation of the data analysis</i>	<i>149</i>
<i>Figure S6-1 Distribution of frequency scores of different types of child maltreatment</i>	<i>296</i>
<i>Figure S7-1 Distribution of frequency scores of different types of child maltreatment</i>	<i>304</i>
<i>Figure S7-2 Distribution of the scale scores of SDQ</i>	<i>309</i>

LIST OF ABBREVIATIONS

CM	Child Maltreatment
PM	Physical Maltreatment
EM	Emotional Maltreatment
UN	The United Nations
UNICEF	The United Nations Children's Fund
SDGs	The Sustainable Development Goals
CTQ	The Childhood Trauma Questionnaire
CTS	The Conflict Tactics Scale
CTSPC	The Conflict Tactics Scale-Parent Child
ISPCAN	The International Society for the Prevention of Child Abuse and Neglect
ICAST-R	ISPCAN Child Abuse Screening Tools Retrospective version
ICAST-C	ISPCAN Child Abuse Screening Tools Children's Version
ICAST-P	ISPCAN Child Abuse Screening Tools Parents' Version
IPV	Intimate partner violence
NSSI	Non-suicidal self-injury
MDD	Major depressive disorders
SDQ	The Strengths and Difficulties Questionnaire
AQ	The Aggression Questionnaire
RRRs	Relative risk ratios
ORs	Odds ratios
FGD	Focus group discussions

CHAPTER 1 BACKGROUND

This Chapter provides a brief introduction to the global context of child maltreatment. It then describes the Chinese context, including the social context, the legal framework, and the child protection system. Finally, it presents the aims and research questions of this research, followed by the structure of this thesis.

1.1 Child Maltreatment: The Global Context

1.1.1 Child Maltreatment in All Settings

Child maltreatment (CM) is recognised as a major public health, human rights, and social problem, with devastating effects on children and their families, as well as serious economic and social costs.¹ A child is defined as under 18 years of age by the United Nations Convention on the Rights of the Child.² It takes many forms, such as physical, sexual, and emotional abuse. It occurs in many settings, including the home, school, community and over the Internet, and can be committed by a wide range of perpetrators, such as family members, teachers, peers and strangers.

There are approximately 2.2 billion children in the world, and every child has the right to good health and a life free from violence and exploitation. All nations except the US have ratified the 1989 United Nations (UN) Convention on the Rights of the Child, which states that all possible measures should be taken in order to protect children from maltreatment. Now the UN has launched a new Agenda for Sustainable Development which calls for ending abuse and all forms of violence against children.³ Yet child maltreatment of all forms, in all settings, remains a global phenomenon, touching the lives of millions of children – regardless of their economic and social circumstances, culture, religion or ethnicity. As estimated by a systematic review (Hillis *et al.*, 2016) which used data based on population surveys from approximately 96 countries, a minimum

of 50% of children in Asia, Africa, and North America had experienced maltreatment during the last year, and that globally over half of all children – 1 billion children, aged 2–17 years – had experienced such.⁴

1.1.2 Child Maltreatment in the Home and Family

Families hold the greatest potential for protecting children from all types of maltreatment, but they can be dangerous places for children. Maltreatment of children by parents or carers is not rare. It encompasses “any acts of commission or omission by a parent or other caregiver that result in harm, potential for harm, or threat of harm to a child, even if harm is not the intended result”, including physical abuse, psychological or emotional abuse, neglect and sexual abuse (definitions in **Table 1-1**).^{5,6} Over the past several decades, a large number of studies have estimated prevalence rates of child maltreatment. A review (Stoltenborgh *et al.*, 2015) of 244 publications and 551 prevalence rates for the various types of maltreatment, found that the global rates for self-report studies were 22.6% for physical abuse, 36.3% for emotional abuse, 16.3% for physical neglect, 18.4% for emotional neglect, and 12.7% for sexual abuse (7.6% among boys and 18.0% among girls).⁷

Table 1-1 Definitions of child maltreatment ^{5,6}

Type	Definition
Physical abuse	Intentional use of physical force or implements against a child that results in, or has the potential to result in, physical injury.
Emotional (or psychological) abuse	Intentional behaviour that conveys to a child that he/she is worthless, flawed, unloved, unwanted, endangered, or valued only in meeting another’s needs.
Neglect	Failure to meet a child’s basic physical, emotional, medical/dental, or educational needs; failure to provide adequate nutrition, hygiene, or shelter; or failure to ensure a child’s safety.
Sexual abuse	Any completed or attempted sexual act, sexual contact, or non-contact sexual interaction with a child by a caregiver.*

*Including substitute caregivers in a temporary custodial role (e.g., teachers, relatives)

Child maltreatment in the home setting may frequently take place in the context of discipline. In all cultures, children need to be taught about self-control and acceptable behaviours. This is an integral part of child discipline. However, the issue is complicated by the fact that parents often use physical punishment or psychological aggression with their children to punish unwanted behaviours. Physical punishment involves acts such as kicking, pinching, spanking, shaking, hitting with a hand, or hitting with an implement. Psychological aggression includes verbal aggression, threats, intimidation, humiliation, withdrawal of love or emotional manipulation. In many cases, rather than disciplining children, such violent methods are used as a result of parents' anger and frustration, or lack of knowledge of positive disciplinary strategies.

Physical punishment and psychological aggression are violations of children's rights, and they can lead to physical injuries ranging from minor bruises and broken bones to head trauma, physical disability and even death, as well as long-term negative consequences that persist into adulthood. Despite that, data (UNICEF, 2014) from 62 countries or areas have shown that around 6 in 10 children between the ages of 2 and 14 worldwide (almost a billion) are subjected to physical punishment by their parents or carers on a regular basis, with substantial variations among countries (**Figure 1-1**). Psychological aggression is slightly more common (around 7 in 10 children).⁸ About 17% of children, on average, are subjected to severe forms of physical punishment, such as hitting the child on the head, ears or face, or hitting the child hard and repeatedly.⁸

1.1.3 Prohibiting Corporal Punishment in the Home Setting

The UN Convention on the Rights of the Child and other international and regional human rights treaties have made great progress towards universal prohibition of corporal punishment of children in all settings of their lives. Corporal punishment refers to "any punishment in which physical force is used and intended to cause some degree of pain or discomfort, however light".⁹

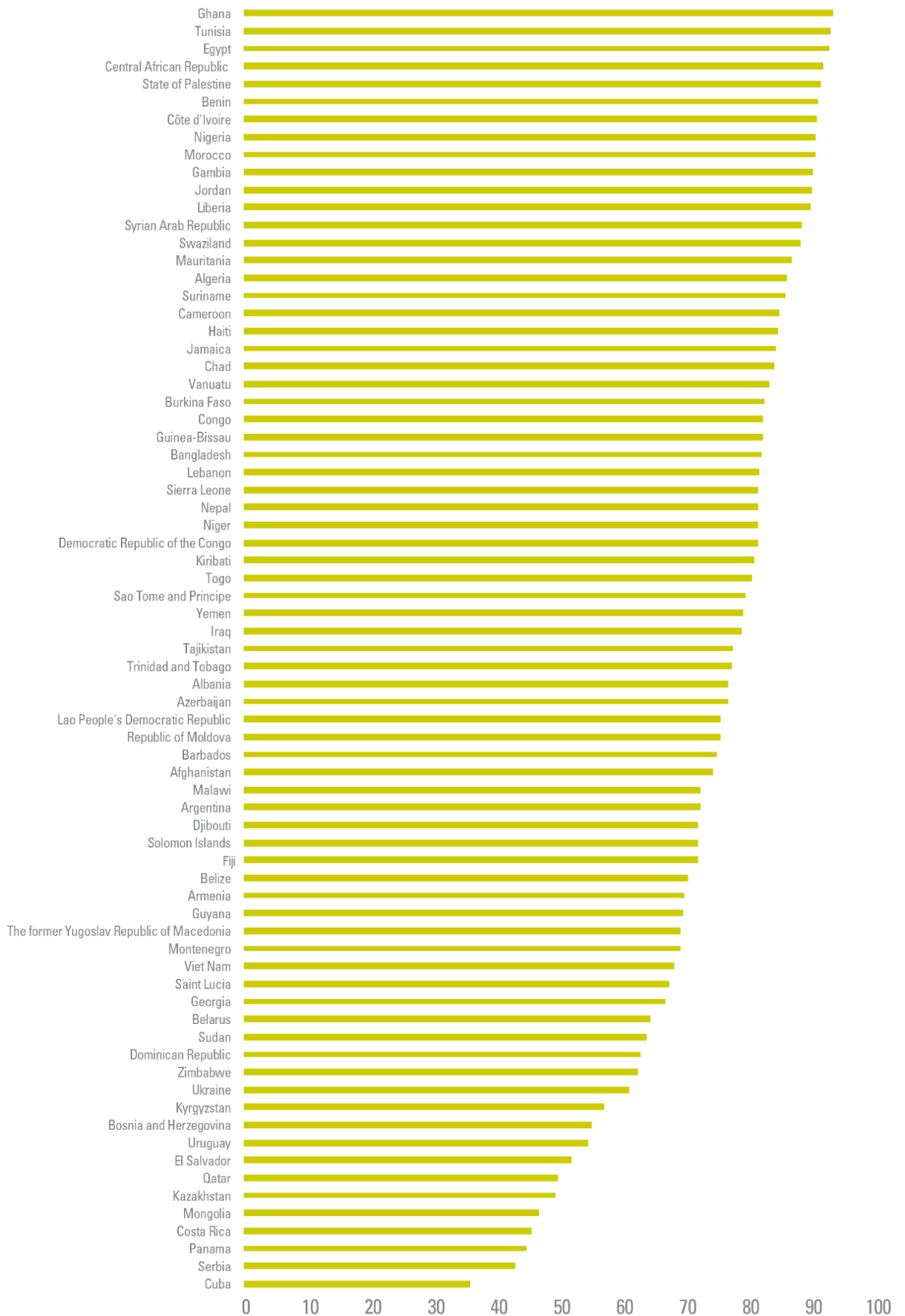


Figure 1-1 Percentage of children aged 2 to 14 years who experienced any violent discipline (physical punishment and/or psychological aggression) in the past month

Source: UNICEF global databases, 2016, based on Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and other nationally representative surveys, 2005-2015.⁸

As of February 2018, 53 countries have prohibited the use of all forms of corporal punishment with children, including in the home setting; a further 55 states have expressed a commitment to full prohibition.¹⁰ With the primary aim to change public attitudes towards corporal punishment rather than to punish parents for using it, the legal ban may help to pave the way for the development of formal child protection systems in many countries. Some evidence has shown the effects of prohibition. For instance, research from Sweden and Finland has shown the decline of using corporal punishment at home after legal bans.^{11,12} Although it has been reported that Swedish beliefs in the appropriateness of corporal punishment were already declining before the legal ban in 1979, it continued to decline afterwards. Subsequent to implementing the ban, there have been lower rates of youth crime and suicide, as well as less alcohol and drug use among youths, however direct causal relationships cannot be inferred.¹³ For instance, trends in alcohol and drug use can also be attributed to a long history of temperance, as well as government regulatory policies and public health prevention programs.¹³ Moreover, a comparison of six European countries (Bulgaria, Germany, Lithuania, the Netherlands, Romania, and Turkey) showed that parents were 1.7 times more likely to report the use of corporal punishment in countries without legal bans.¹⁴ Zolotor and Puzia (2010) reviewed changes in attitudes and behaviours in the first 24 countries which enacted such legal bans. They reported positive associations between the existence of legal bans and less support for corporal punishment. However, the review also indicated that there is no clear evidence of causal relationships in the changes of attitudes and behaviours due to the legal bans.¹⁵

The legal prohibition of corporal punishment at home is an important step towards the protection of children from violence. However, it is important to recognise that changing the law is not always sufficient to change parents' attitudes and behaviours. Even for countries (e.g., Ukraine, Togo, Albania, and Macedonia) that have outlawed corporal punishment, many parents/carers continue to believe that it is necessary to use corporal punishment and even more report that their children continue to experience corporal punishment.¹⁶ This indicates an urgent need for campaigns to promote awareness of legal bans and to educate parents regarding negative effects of corporal punishment.

A study of five western European countries (Austria, France, Germany, Spain, and Sweden) suggested that both legal bans of corporal punishment and public awareness campaigns are important in reducing violence against children.¹⁷ In addition, the legal reform must be accompanied by appropriate policies. However, in many countries such as Kenya and South Sudan, there exist no concrete and explicit policies to guide the execution of the legal ban.

1.2 Child Maltreatment: The Chinese Context

1.2.1 Social Context in China

To investigate child maltreatment in China, it is essential to understand the Chinese social context in relation to parenting and disciplining children. Physical punishment and verbal aggression (*'dama'*, the corresponding word in Chinese) are widely considered to be legitimate means of disciplining children in China, as indicated by Chinese proverbs, such as 'beating and scolding are an emblem of love' and 'the rod makes an obedient son', similar to the English saying 'spare the rod and spoil the child'. This could be attributed to the traditional cultural values rooted in Confucian principles, which require children to display loyalty and respect to their elders, and that elders must teach, discipline, and 'govern'. This is seen as important to maintain social order and family harmony.^{18,19} Parental disciplining of children is influenced by the concepts of parental authority and filial piety.²⁰ Chinese parents expect children to be obedient and respectful, and place great importance on their academic achievement.^{21,22} Children would be regarded as 'impious' when they fail to comply with parents' instructions or to meet parents' expectations. In these situations, Chinese parents tend to use physical punishment and verbal aggression with their children.

To understand the phenomenon, it is important to keep in mind that personal perceptions about the appropriateness and the extent of physical punishment are often linked to the views and values of the social and cultural context in which a person is embedded.²³ In China, physical punishment and verbal

aggression are widely perceived as an indication of parental involvement and concern, and are considered to be favorable rather than damaging to children's development.^{18,24} In the literature, Chinese parenting is often described as "restrictive", "controlling" or "authoritarian".¹⁸ However, these concepts are more pertinent to Western parenting values, which are related to parental hostility, aggression, mistrust, and dominance.²⁵ In Chinese culture, they may involve "domination" of children, but are also equated with a manifestation of parental concern.¹⁸

1.2.2 Legislative Framework in Mainland China

In China, corporal punishment is prohibited in schools (e.g., the Compulsory Education Law, the Teachers' Law, and the Protection of Minors), nurseries and preschools (e.g., the Protection of Minors), and penal institutions (e.g., the Criminal Law, the Prison Law). But it is still lawful in the home setting.

Despite Chinese ratification of the UN Convention on the Rights of the Child in 1992, there was no legal definition of what constitutes child abuse until the enforcement of the new Anti-Domestic Violence Law in March 2016. A few laws clearly prohibited child abuse in the home setting (**Table 1-2**), such as the Law of Constitution, the Principles of Civil Law, the Marriage Law, the Protection of Minors, and the Criminal Law. For instance, Article 3 of the Marriage Law states that '*It is forbidden to abuse and abandon family members*'. However, there was only a vague concept of child abuse and protection, but no specific definition or operational regulations.

Table 1-2 Legislations relevant to child abuse

Law	Article
Law of Constitution	Article 49: It is forbidden to abuse the elderly, women and children.
Principles of Civil Law	Article 104: The marriage and family, the elderly, mothers and children are protected by law.
Marriage Law	Article 3: It is forbidden to abuse and abandon family members.
	Article 21: It is forbidden to commit infanticide by drowning and to abandon infants, as well as to do other harmful acts to infants.
	Article 27: Abuse and discrimination of children by step-parents are not allowed.
	Article 43: Victims of domestic violence are entitled to make a request. The residential committee, villagers' committee and work unit should take measures to discourage and mediate domestic violence. The public security department should take measures to stop this.
The Protection of Minors	Article 21: The staff of schools, preschools and nurseries should respect the dignity of minors. It is prohibited to commit corporal punishment, disguised corporal punishment or any other humiliating behaviours to minors.
	Article 41: It's forbidden to kidnap, sell and abuse minors. Prohibit sexual abuse of minors.
	Article 62: If parents or other guardians do not carry out their duties of guardianship, and harm minors' legitimate rights, the work unit, residential committee or villagers' committee should take measures to discourage and stop.
Criminal Law	Article 260: Whoever abuses family members seriously shall be sentenced to less than two years' term imprisonment, criminal detention or public surveillance. Whoever commits the former crime, causing the victim serious injury or death, shall be sentenced to imprisonment of two to seven years. The first crime would be handled only upon prosecution.

The Anti-Domestic Violence Law (2016) prohibits the use of violence against children by guardians and specifies legal protection for some severe forms of maltreatment, including beating, binding, injuring, use of physical constraints, and frequent verbal abuse and intimidation.^{26,27} But it does not clearly ban all physical punishment, and does not mention other types of child maltreatment, such as neglect, sexual abuse and witnessing domestic violence. In addition, it is difficult to make rulings on whether parents have maltreated their children or merely used violence for the purpose of discipline. The new Anti-Domestic Violence Law also specifies mandatory reporting of violence against children. Preschools, schools, healthcare agencies, residential committees, villagers' committees, social work agencies, and social welfare agencies have an obligation to report any case of domestic violence against children to the public security department. Any severe consequence caused by an unreported case is to be considered the responsibility of those directly in charge of, or those having immediate relevance to, the victim. In comparison with what has been previously stipulated by law, a far larger group of people are now identified as mandated reporters of cases.

In addition, there was no specialised law targeted at protection of abused children. For instance, the focus of the Marriage Law primarily is on the protection of marriage and women; the Minors Protection Law is supposed to protect the rights of minors, but there is very limited information on child abuse. Even the latest Anti-Domestic Violence Law is generally targeted at violence perpetrated by family members rather than child abuse.

There are huge limitations for the Criminal Law, which means that abused children cannot be effectively protected by law in practice. For instance, Article 260 of Criminal Law 2011, '*whoever abuses family members seriously shall be sentenced to less than two years' term imprisonment, criminal detention or public surveillance. Whoever commits the former crime, causing the victim serious injury or death, shall be sentenced to imprisonment of two to seven years. The first crime would be handled only upon public prosecution*'. It states that only severe child abuse cases can be dealt with as a public prosecution; in

most instances little can be done, because criminal proceedings can only be pursued when children bring a lawsuit against abusers, but children often do not have the ability or awareness to do so. Although other adult family members or relatives can sue on behalf of children, they might be reluctant to get involved.

1.2.3 Child Protection System in Mainland China

During the last few decades, the overall health status of children in China has markedly improved, largely due to rapid economic growth and improved health care. There has been a dramatic reduction in under-five mortality, with many cities now reporting under-five mortality rates of less than five per 1,000 livebirths, equivalent to some of the most advanced countries such as Norway, Finland and Switzerland.^{28,29} But child protection remains a low priority.³⁰ A number of government agencies have been taking responsibility for the protection of children in difficult circumstances, for instance, civil affairs departments, local working committees on women and children (e.g., the Women's Federation), and public security departments.³⁰ However, no agency takes formal responsibility for child protection.^{30,31} Individuals often do not know where to report cases of child abuse. Even child health professionals are reluctant to report such cases, and more importantly, they have insufficient knowledge, skills, and confidence when dealing with child abuse.^{32,33} There is no system for placement of at-risk children in alternative environments such as foster care. Unlike other countries, the foster care system in China could only provide services for orphaned and abandoned children.³⁰ In the most severe cases criminal proceedings are pursued, but in most instances little can be done.

There has been an increased focus on this issue during the last few years, for instance, the introduction of pilot child protection programs. In May 2013, China's Ministry of Civil Affairs issued the '*Notice on carrying out the pilot work of the social protection of minors*' as national guidance for the practice of a child protection system. The government started pilot programs in 20 areas. A total of 98 cities and counties from 29 provinces were identified as pilot areas from May 2013 to July 2014. In August 2014, China's Ministry of Civil Affairs announced

that another 78 cities (counties) were included in the programs. The pilot programmes aimed to serve different groups of children, including left-behind children, migrant children, maltreated and neglected children, street children, working children, children who leave school due to family poverty, children with parents in prison, children with seriously ill or disabled parents, abandoned children, and children with disabilities or serious illness. 'Left-behind children' refers to those who are left in rural regions while their parents migrate to cities to work. In most cases, those children are taken care of by their relatives (usually by grandparents).

Some basic elements of a modern child protection system have been advocated in the pilot areas, such as responsible agencies, reporting systems, and alternative services. However, Man *et al.* (2017) analysed data from 97 related public documents and 11 supplemented interviews with government officials, community directors, and social workers affiliated with child protection programs in five provinces (Liaoning, Beijing, Heilongjiang, Jilin and Shandong). Their findings showed that the pilot programs did not work as effectively as expected. Firstly, the pilot child protection programs served more left-behind children, children with parents in prison, and children with seriously ill or disabled parents, rather than maltreated and neglected children. Secondly, it is worth noting that the Minors' Protection Office was established by the Ministry of Civil Affairs in February 2016 at the national level. However, it aims to provide protection for left-behind children rather than maltreated children.

Thirdly, for the first time, a reporting system has been set up in local communities as a part of the pilot protection programmes, such as reporting centres for violence against children and a 24-hour hotline for reporting suspected cases. However, it is questionable whether the reporting system is functioning or if the government merely paid lip service to it. Evidence showed that in practice the local public security departments still take the primary responsibility for accepting reports and investigating cases of child maltreatment.³⁰ In addition, there were potential challenges for enforcement of such a reporting system. For instance, the public might not be aware of its

existence, or individuals might not be willing to intervene in other families' business.

In summary, although a basic framework for child protection has formed in the pilot areas, nothing concrete has been undertaken. There is still no agency taking formal responsibility for child protection. There is still a lack of placement services for maltreated children. There remains lots of challenges to improve and implement the child protection system in China.

1.3 Aims and Research Questions

The overall aims of this thesis were to explore multiple aspects of child maltreatment in China, including perceptions, risk factors, experiences and negative effects, in order to contribute to the development of effective prevention and intervention strategies for child protection in China. After a preliminary literature review, I developed research interests in two of the risk factors: measured aggressive tendency in parents, and parents' personal history of child maltreatment. Research questions are presented below.

- (1) What is the prevalence and risk factors of child maltreatment in Zhejiang Province, China?
- (2) Are parents with childhood experience of maltreatment more likely to maltreat their children?
- (3) Are parents with higher aggressive tendencies more likely to maltreat their children?
- (4) Are different types of maltreatment independently associated with child emotional and behavioural problems?
- (5) What are young adults'/children's perceptions of their childhood experiences of maltreatment?
- (6) What are parents' perceptions of their experiences of disciplining/punishing children?

During the data analysis stage, I was also intrigued by the relationship between aggressive tendency and intergenerational patterns of maltreatment, and so the below research question was also included.

- Is childhood experience of maltreatment associated with aggressive tendencies in adulthood, and is this in turn associated with maltreatment of children?

1.4 Structure of This thesis

This thesis has nine chapters. **Chapter 1** provides a brief introduction to the global context of child maltreatment. It then describes the Chinese context, including the social context, the legal framework, and the child protection system. Finally, it presents the aims and research questions of this research.

Chapter 2 describes the theoretical framework of child maltreatment. Contributions of the theoretical framework to this research are provided at the end of the chapter.

Chapter 3 presents a literature review of research relating to the prevalence, risk factors, and negative effects of child maltreatment in China. Research gaps identified in the literature are then described, followed by contributions of the literature review to this research.

Chapter 4 describes the quantitative and qualitative methods of the research and the justifications for the mixed-method design. It clarifies links between the research questions and various dimensions of this research. It then provides a detailed explanation of the study setting and study populations (including young adults, parents and children). Ethical considerations of this research are given at the end of the chapter, including critical reflections on the ethical issues that emerged during the research process.

The next four chapters (**Chapters 5-8**) describe the quantitative and qualitative research findings. Each chapter contains a research background, research questions, methods and results. The quantitative research of experiences and perceptions of child maltreatment among young adults is presented in **Chapter**

5. Chapter 6 covers the quantitative research of maltreatment of children reported by parents, with particular attention to relationships between child maltreatment, aggressive tendencies in parents and parental childhood maltreatment. **Chapter 7** describes child self-reported maltreatment in the home setting and the negative effects of different types of maltreatment on child emotional and behavioural problems. **Chapter 8** presents experiences and perceptions of child maltreatment among different populations from a qualitative perspective.

Chapter 9 draws together all key findings and discusses them in both a national and international context, while demonstrating how this research has made original contributions to knowledge and theory within this field. Strengths and limitations of the research are also discussed. Then implications for future research, policy and practice are provided.

CHAPTER 2 THEORETICAL FRAMEWORK OF CHILD MALTREATMENT

This chapter presents the theoretical framework of child maltreatment: the ecological model and the transactional model. The two models are widely used because they enable researchers to understand child maltreatment from a holistic perspective rather than a single-focused process. Kempe *et al.*'s (1962) landmark paper 'The Battered Child Syndrome', brought child maltreatment to the attention of the public and researchers. Since then, a variety of models have been proposed to account for the aetiology of child maltreatment, including models emphasising psychological disturbance in parents (e.g., hostile personality), abuse-eliciting characteristics of children (e.g., difficult temperament or behavioural problems), dysfunctional patterns of family interaction, stress-inducing social forces, and abuse-promoting cultural values.³⁴⁻³⁸ Since the 1980s, the theoretical viewpoint of child maltreatment has focused primarily on two integrative theories: the ecological model and the transactional model.³⁹⁻⁴¹ An explicit narrative of the two models is given in this chapter. Contributions of the theoretical framework to this research are provided at the end of the chapter.

2.1 The Ecological Model of Child Maltreatment

Belsky (1980) integrated the existing divergent points of view by proposing a conceptual framework. The framework draws heavily on Bronfenbrenner's theory of the ecology of human development, which is slightly modified to incorporate Tinbergen's concern for ontogenic development.^{42,43} It conceptualises child maltreatment as "*a social-psychological phenomenon that is determined by forces at work in the individual and the family, as well as in the community and the culture in which both the individual and the family are embedded*".³⁹ The ecological framework (see **Figure 2-1**) consists of four levels of analysis:

(1) Ontogenic development: it represents how a particular parent grows up to behave in an abusive manner. Each parent, and indeed other adult figures, will bring their own ontogenic background into the ecological framework. In the model proposed by Belsky (1980), concern for parental factors that contribute to child maltreatment has primarily focused on a history of maltreatment in their own childhood. Belsky (1983) further included parents' personalities and psychological attributes. Initial research on the aetiology of child maltreatment were primarily based on clinical experience, which led to models that emphasise psychological disturbance in parents.^{44,45} There is also a need know about the role of parents' gender and age in the occurrence of maltreatment of children.

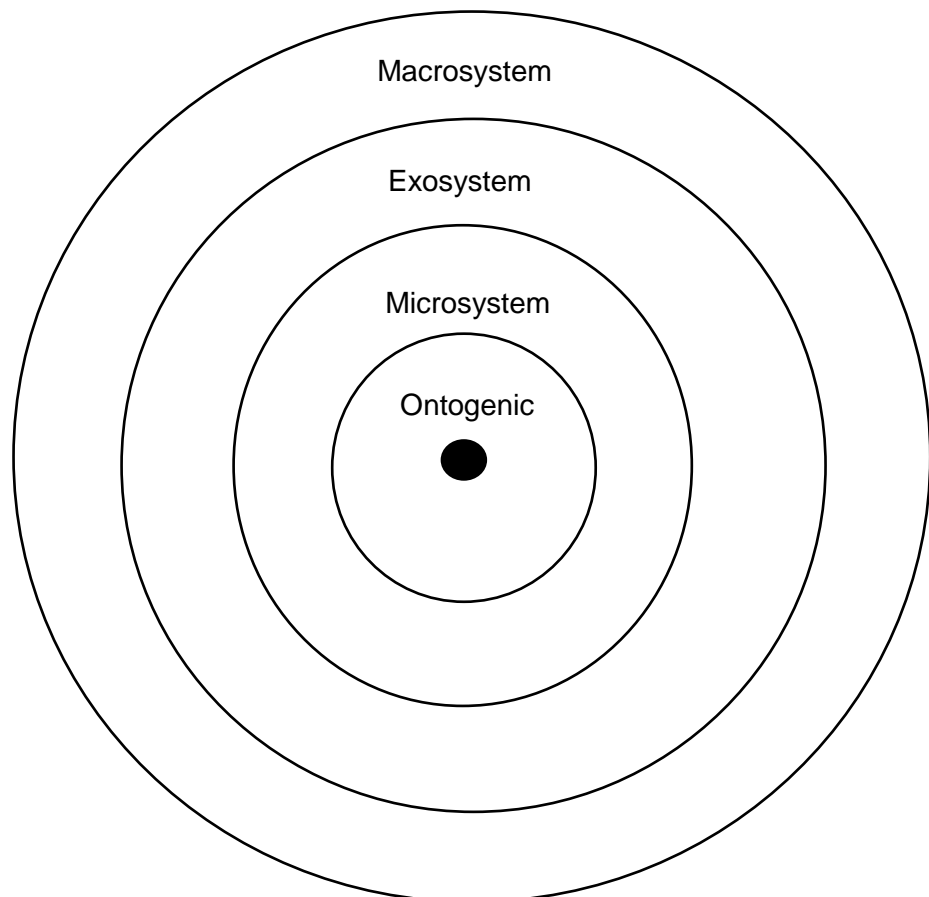


Figure 2-1 An ecological model of child maltreatment

(2) The microsystem: it represents the context of a child's immediate family and household. Traditionally, examination of the family system has focused on parents (e.g., education, socio-economic status, family structure, family size, spousal relationship). Longitudinal studies in Western countries have indicated that low family income, large family size, parental unemployment, high mobility, and overcrowded living conditions are risk factors of child maltreatment, although the relationships varied with the type of child maltreatment.⁴⁶⁻⁴⁸ This can be attributed to increased stress stemming from socioeconomic disadvantage.⁴⁷ There is increasing evidence which has indicated that single parenthood, inter-parental violence, family conflict and family cohesion increase the risk of maltreatment of children.⁴⁹⁻⁵⁴

Belsky (1980) also proposed that children may be considered as potential contributors to their own maltreatment. Certain characteristics of children may put them at greater risk of maltreatment, such as being born prematurely, premature infants' aversive cry and appearance, and young children's temperament. Belsky (1983) further considered research evidence in relation to children's age and physical health. More importantly, Belsky (1980; 1983) stressed that within the system of the family, child maltreatment must be considered as an interactive process; although children may play a role in their own maltreatment, they cannot cause it by themselves. Children and their parents mutually influence one another – the reciprocal effects (Bell, 1968; Sameroff, 1975).^{55,56} Bell (1968) emphasised reciprocal effects in the immediate context, whereas Sameroff (1975) focused more heavily on interactions across time.

(3) The exosystem: it represents the larger social systems within which the family is embedded (e.g., the world of work, the neighbourhood, formal and informal social networks, and socioeconomic status). These factors most likely stimulate child maltreatment through the pressures they place on the family and the consequent stress they create. The number of studies examining neighbourhood characteristics in relation to child maltreatment have increased rapidly in the past 30 years. Freisthler *et al.* (2006) reviewed 18 ecological

studies of child maltreatment.⁵⁷ The review showed a stable ecological relationship between rates of child maltreatment and neighbourhood poverty (percentages of families below the poverty level), housing stress (e.g., residential instability, owner-occupied housing, and vacant housing units), and drug and alcohol availability. Some evidence also showed that unemployment (the percentage of people unemployed in a neighbourhood) and child care burden (the amount of adult supervision and resources available in neighbourhoods to care for children) may contribute to child maltreatment, but the findings are not conclusive.⁵⁷ However, little empirical evidence exists supporting a relationship between family structure (e.g., percentages of female headed families) and maltreatment at the neighbourhood level, and there is an important need for more research on other neighbourhood-level factors, such as residential density, population density, social support, immigrant concentration, and availability of resources, before definitive conclusions can be drawn. It is important to bear in mind that these studies were all cross-sectional, which only allows for discussions of correlational associations, but cannot imply the directions of the relationships. There is a need for more research in the future to understand how neighbourhood characteristics interact with each other and with individual characteristics to provide a clearer picture of the social processes and mechanisms involved in the maltreatment of children.

(4) The macrosystem: it represents overriding cultural beliefs and values in any particular society that foster the maltreatment of children (e.g., society's attitudes toward violence, physical punishment and children) through the influence they exert on ontogenic development and the micro- and exosystems. Several relatively recent studies included data from various countries or cultural groups and showed that endorsement of violence at a societal level or normalisation of physical punishment in the community were related to more frequent physical punishment.^{58,59} Therefore, preventing child maltreatment before it occurs requires a major shift in what society regards as acceptable behaviour.

It is important to emphasise that factors within a given level can influence surrounding levels of the model. The macrosystem can exert an influence on ontogenic development and the micro- and exosystems. The exosystem can influence what happens in the microsystem, and characteristics of the immediate microsystem have the most direct effects on children's development.

The ecological model of child maltreatment lends itself to a multidisciplinary approach to the phenomenon by drawing from the fields of psychology, medicine, sociology, and child maltreatment.⁶⁰ However, it fails to explain why the system levels are ecologically nested and how each affects one another, ultimately limiting the opportunity for empirical validation.⁶¹ Yet the ecological model provides important guidance for research and practice because of its multilevel structure. Firstly, it enables researchers to combine all factors known to be relevant to child maltreatment and serves as a guide for future empirical research. More importantly, it stimulates researchers to move beyond the mere identification of individual variables to an exploration of the interactions between variables both within and between different levels. Secondly, the ecological perspective has important implications for child protection practice in relation to assessment, intervention and prevention. It suggests that factors at all levels need to be assessed if a full picture is to be gained, although it seems clear that it is never going to prove possible to identify any single factor.⁶² There is no single solution to solve the problem, as child maltreatment arises as a result of a transactional process involving characteristics of parents, children and the multiple aspects they are embedded within.⁶³ Therefore, interventions and preventions should target different levels of factors, ranging from the specific caregiving behaviour of a parent to the social conditions that make it difficult for parents to be emotionally sensitive and psychologically available to their children.

2.2 An Ecological-Transactional Model of Child Maltreatment

Drawing on Bronfenbrenner's conceptualisation, Cicchetti and Rizley (1981) went a step beyond the ecological model in proposing a transactional model to address the causes of child maltreatment and the mechanisms through which

maltreatment is transmitted across generations.⁴⁰ This model advocates a transactional approach through which environmental forces, parent characteristics, and child characteristics influence each other and make reciprocal contributions to developmental outcomes. It has focused on risk factors that may contribute to the occurrence of maltreatment, which are divided into two broad categories: *potentiating factors* (increasing the probability of maltreatment) and *compensatory factors* (decreasing the probability of maltreatment). Furthermore, temporal distinctions are made for both categories of risk factors: *transient risk factors* which fluctuate and may indicate a temporary "state", and *enduring factors* which represent more permanent conditions or characteristics. According to this transactional model, maltreatment occurs only when potentiating factors outweigh compensatory ones. This was confirmed by the review of Belsky (1993).⁶³

Drawing upon Cicchetti and Rizley (1981) and Belsky (1980), Cicchetti & Lynch (1993) proposed an ecological-transactional model of child maltreatment. This model presents a broad and integrative explanatory framework for conceptualising and examining the processes associated with child maltreatment. While the ecological model focuses on the aetiology of child maltreatment, the transactional model focuses more closely on the outcomes of child maltreatment. It explains how processes at each level of ecology exert reciprocal influences on each other and in turn influence children's development (see Figure 2-2).⁴¹ In other words, potentiating and compensatory risk factors associated with maltreatment are present at each level of the ecology and can influence processes in the surrounding environmental levels. These dynamic transactions, which operate both horizontally and vertically throughout the levels of ecology, determine the amount of risk for maltreatment that an individual faces at any given time.⁶⁴ The levels of ecology most proximal to the child have the most direct impact on child development relative to the more distally located macrosystem.

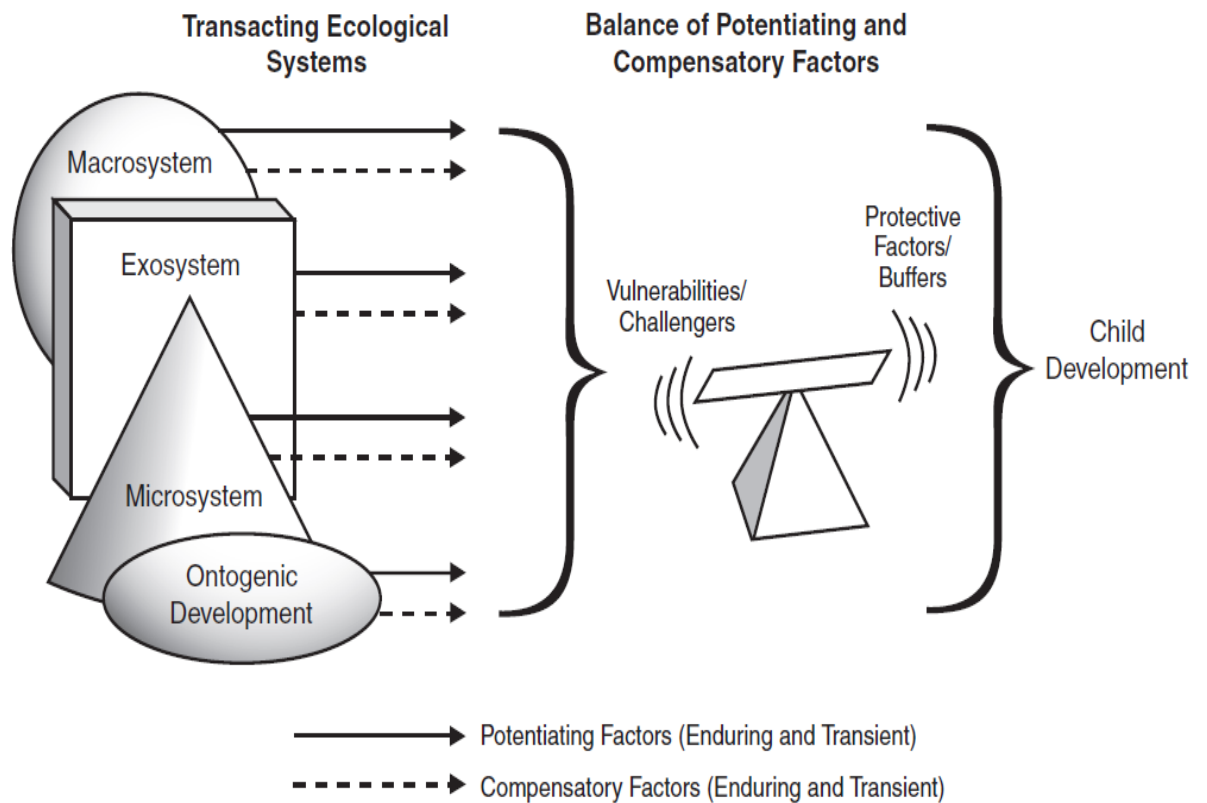


Figure 2-2 An Ecological-Transactional Model of Child Maltreatment⁶⁴

The manner in which children cope with the challenges posed by familial violence (including child maltreatment) is seen in their own ontogenic development and internal working model, which shapes their ultimate adaptation or maladaptation. An increased presence of enduring vulnerability factors and transient factors associated with maltreatment at all ecological levels contributes to the successful resolution of stage salient developmental issues, setting the child on a pathway to negative developmental outcomes and psychopathology.^{41,64,65} Conversely, such an ecological/transactional model of violence and its effects also should help to account for positive outcomes in some children. The presence of enduring protective factors and transient buffers at any level of the ecology may help to explain why some maltreated children display successful adaptation in the face of violence within families.⁴¹

2.3 Contributions of the Theoretical Framework to This Research

The ecological/transactional model of child maltreatment contributed to this research in the following aspects. Firstly, it allowed me to combine all factors known to be relevant to child maltreatment at four different levels (ontogenic development, microsystem, exosystem, and macrosystem) when reviewing empirical research on risk factors of child maltreatment in China.

Secondly, the exosystem of the ecological model partly informed the selection of urban and rural areas of this research. Participants from both urban and rural areas in one province were recruited, as neighbourhood characteristics within which the family is embedded can influence what happens in the microsystem, and characteristics of the immediate microsystem have the most direct effects on children's development.

Thirdly, ontogenic development of the ecological model informed research questions in relation to the role of parental aggressive tendencies and parental childhood maltreatment in the occurrence of child maltreatment. In addition, some researchers propose that an abusive childhood may promote a hostile or aggressive personality in adulthood which then leads to maltreatment of the next generation.^{66,67} I then further developed a research interest in the role of parental aggressive tendencies in the intergenerational transmission of child maltreatment.

Fourthly, the ecological model of child maltreatment contributed to the design of the qualitative research. As indicated by the ecological model, child maltreatment arises as a result of a transactional process involving characteristics of parents, children and the multiple aspects they are embedded in. The qualitative research with different populations provides detailed accounts of parental behaviours. It offers a great opportunity to move beyond the mere identification of individual variables to an exploration of the interactions between variables both within and between different levels, which greatly contributes to a better understanding of the complex causes of child maltreatment. The qualitative research has important implications for child protection practice in relation to preventions and interventions.

Lastly, the ecological/transactional model of child maltreatment contributed to a deeper understanding of the qualitative research findings, for instance, young people's perceptions of harm from maltreatment and potential factors moderating harm. The ecological-transactional model focuses closely on the outcomes of child maltreatment and provides a framework to explain why some maltreated children develop negative outcomes while some display successful adaptation in the face of violence within families, which depends on the balance of potentiating factors (increasing the probability of maltreatment) and compensatory factors (decreasing the risk for maltreatment). This model was incorporated into the discussion of the qualitative research findings.

CHAPTER 3 LITERATURE REVIEW OF CHILD MALTREATMENT IN CHINA

This chapter presents a literature review of child maltreatment in China relating to three aspects: prevalence, contributing factors, and consequences. Critical appraisal of the literature for each aspect is given at the end of each section. Additionally, research gaps identified in the literature are described, followed by contributions of the literature review to this research.

3.1 Background of Literature Review

To date, the vast majority of child maltreatment research has taken place in Western countries, and researchers have only relatively recently started to take an interest in child maltreatment in China.⁶⁸ Although no national data of child maltreatment are available in China, previous reviews have included one systematic review on the prevalence of physical maltreatment, two on sexual abuse, and one on all types of child maltreatment.⁶⁹⁻⁷² In addition, Fang *et al.*'s (2015) systematic review examined the impacts of child maltreatment on health and well-being.⁷² Liao *et al.*'s (2011) ecological review included contributing factors for child maltreatment.⁷³ The purpose of this literature review is to summarise the results of empirical research on the prevalence, contributing factors and consequences of child maltreatment in China.

3.2 Search Strategy

I conducted a literature search to identify relevant empirical studies on child maltreatment in China (including mainland China, Hong Kong, and Taiwan) which were published in either English or Chinese from 1990 to July 2017.

Definitions of child maltreatment used in this review can be seen in **Chapter 1 (Page 16)**. Studies of sexual abuse and neglect were excluded, as they were not the focus of this research. Severity was chosen as a means to classify

various measurements of physical maltreatment. In accordance with severity measures defined in an existing, commonly-used, validated tool – the Conflict Tactics Scale-Parent Child (CTSPC),⁷⁴ items of physical maltreatment were categorised as: minor, moderate or severe (**Table 3-1**). CTSPC is a 22-item questionnaire which is intended to measure emotional and physical maltreatment of children by their parents, as well as non-violent modes of discipline.⁷⁴ In addition, non-contact punishment was considered as ‘physical maltreatment’ in many Chinese studies.⁷⁵⁻⁷⁷ Example items include children being constricted or having their movement restricted, being locked in a room alone, standing/kneeling as a punishment, withholding a meal as punishment, or being locked out of their home. Therefore, studies that involved non-contact punishment were also included.

Table 3-1 Example items for minor, moderate and severe physical maltreatment

<i>Minor Physical Maltreatment</i>
Hit the child on the bottom with bare hand
Hit the child on the bottom with an object
Slapped the child on the hand, arm, or leg
Pinched the child
Shook the child (this is scored Moderate if the child is <2 years)
<i>Moderate Physical Maltreatment</i>
Slapped the child on the face or head or ears
Hit the child on other parts of the body (not the bottom) with an object
Threw or knocked the child down
Hit the child with a fist or kicked the child hard
<i>Severe Physical Maltreatment</i>
Beat up or hit the child over and over as hard as they could
Grabbed the child around the neck and choked the child
Burned or scalded the child on purpose
Threatened the child with a knife

Databases for this review mainly included PubMed, Web of Science, Science Direct, and Scopus. The China Academic Journals Full-text Database (also

known as CNKI) was also used to ensure that there was coverage of primary research articles published in Chinese. The following key words were used: 'child abuse', 'child maltreatment', 'childhood maltreatment', 'physical maltreatment', 'physical abuse', 'corporal punishment', 'physical punishment', 'emotional maltreatment', 'emotional abuse', 'psychological aggression', 'psychological maltreatment', 'psychological abuse', or 'harsh discipline'. The corresponding words in Chinese were 'er tong nue dai (child maltreatment)', 'qu ti nue dai (physical maltreatment)', and 'qing gan nue dai (emotional maltreatment)'. In addition, the reference list for each study was examined for additional potential studies to be included in the review.

Specific inclusion criteria and exclusion criteria can be seen from **Table 3-2**. Since I aimed to summarise the prevalence, contributing factors and consequences for physical and emotional maltreatment separately, studies with undifferentiated maltreatment were excluded.

A detailed search strategy can be seen from **Figure 3-1**. A total of 184 studies were identified that met the inclusion criteria. Of these, there were 91 studies on the prevalence and contributing factors of child maltreatment, and 76 studies on the consequences. Only two qualitative studies were identified, which were not focused on risk factors and consequences;^{24,78} thus, they were not included in the review. No mixed-method research on this topic was found.

Table 3-2 Inclusion criteria and exclusion criteria

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none">• Publish year: Jan 1990- July 2017• Full text available journal articles or research reports• Primary studies of the prevalence, influencing factors and consequences of child maltreatment (including physical and emotional) in China• Studies that included confinement or non-contact corporal punishment• Geographic focus in China including Mainland, Hong Kong, and Taiwan• Studies published in English journals• Studies published in Chinese journals	<ul style="list-style-type: none">• Studies that did not provide a specific or operational definition of child maltreatment• Studies in which the perpetrators of physical and emotional maltreatment were not parents or in a parenting role (e.g., maltreatment by teachers or peers)• Studies with undifferentiated child maltreatment (e.g., no differentiation of different types of maltreatment, or no differentiation between child maltreatment and other adverse life events)• Studies of contributing factors and consequences that lack a non-abusive comparison group• Studies that drew the entire sample from a special or high-risk population (e.g., orphans, drug users, alcoholic inpatients, juvenile offenders, female inmates, children with oppositional defiant disorder or autism spectrum disorder, patients with schizophrenia, or people with disabilities)• Studies of 'overseas' Chinese (e.g., people of Chinese ethnicity living in North America, Australia, or elsewhere)

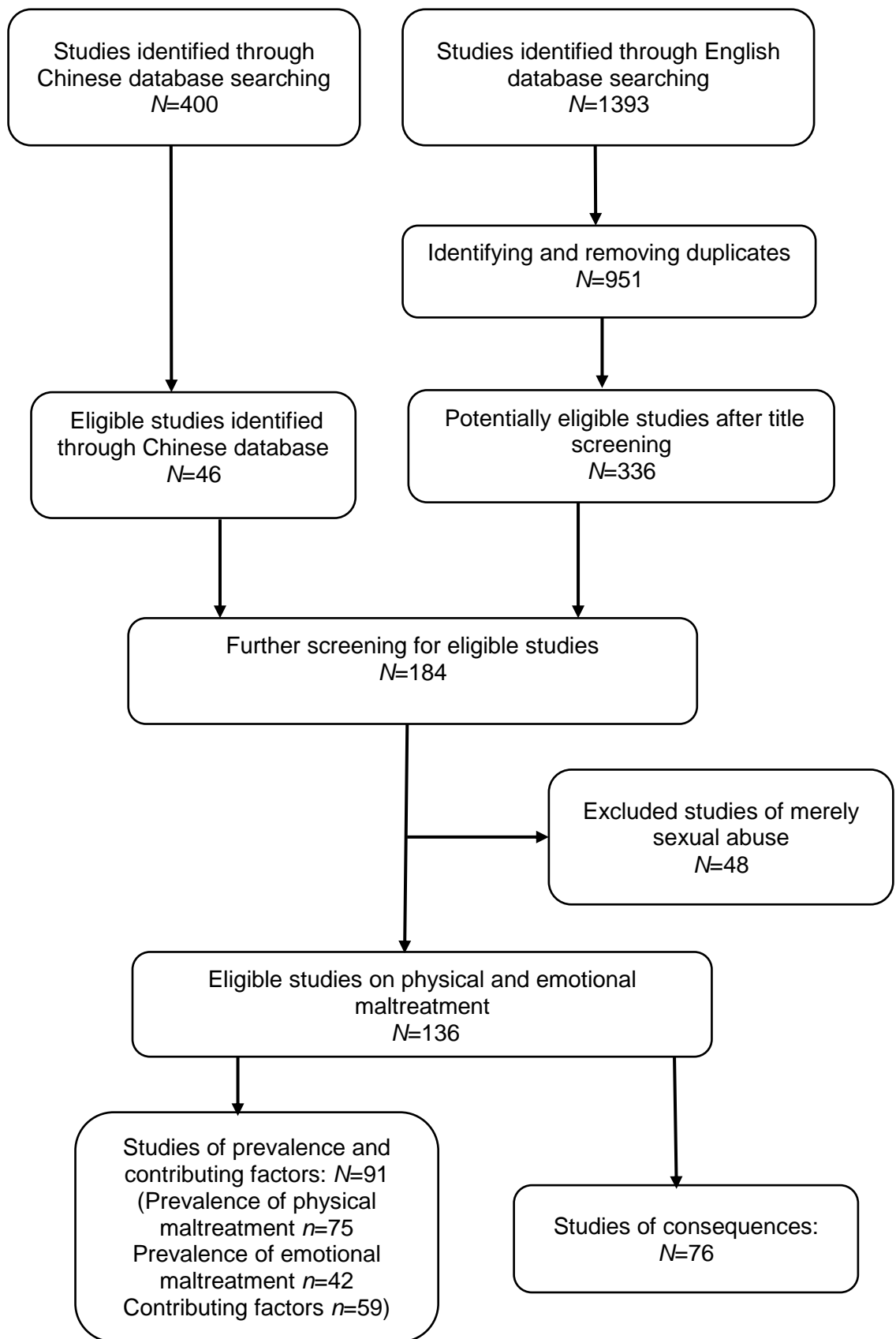


Figure 3-1 Flow chart of search strategy

3.3 Approaches to Critical Appraisal of the Literature

Critical appraisal is a systematic process used to identify the strengths and weaknesses of the literature in order to assess the usefulness and validity of research findings.⁷⁹ Approaches to critical appraisal of the literature in this review included an evaluation of the appropriateness of the study design for the research question and a careful assessment of the key methodological features of this design. **Table 3-3** provides key points considered in the appraisal of a study which may slightly differ with the study design.

Table 3-3 Key methodological points to consider in the appraisal of a study⁷⁹⁻⁸⁴

Study Design	Key Points
Cross-sectional study	<p>Was the study design appropriate for the research question?</p> <p>Was the study sample clearly defined? (e.g., who, characteristics, how many, etc.)</p> <p>Was a representative sample achieved? (e.g., sampling strategy, response rate, etc.)</p> <p>Were all relevant exposures, potential confounding factors and outcomes measured accurately?</p>
Case-control study	<p>Was the study design appropriate for the research question?</p> <p>Were the cases clearly defined?</p> <p>Were the cases representative of a defined population?</p> <p>How were the controls selected and were they drawn from the same population as the cases?</p> <p>Were study measures identical for cases and controls?</p> <p>Were study measures objective or subjective and is recall bias likely if they were subjective?</p>
Cohort study	<p>Was the study design appropriate for the research question?</p> <p>Is the study prospective or retrospective?</p> <p>Is the cohort representative of a defined group or population?</p> <p>Were all important confounding factors identified?</p> <p>Were all important exposures and/or treatments, potential confounding factors and outcomes measured accurately and objectively in all members of the cohort?</p> <p>Were there important losses to follow-up?</p> <p>Were participants followed up for a sufficient length of time?</p>

3.4 Characteristics of Studies Included in the Review

This section describes the characteristics of the studies included in this literature review.

3.4.1 Studies of Prevalence and Contributing Factors

There were 91 studies on the prevalence and contributing factors of physical and emotional maltreatment in China. **Table 3-4** presents key information of the prevalence studies, including author and year of publication, language of publication (e.g., English or Chinese), study design (e.g., cross-sectional, case-control, or cohort study), geographical location (e.g., mainland China, Hong Kong or Taiwan), sample size, sample/report-type (e.g., child self-report, young adult self-report, adult self-report, or parent-report), measures of child maltreatment, the number of items or questions used, prevalence period, and prevalence of maltreatment.

Of 91 studies, 75 studies included the prevalence of physical maltreatment and 42 studies included emotional maltreatment; 59 studies included the contributing factors; 67 studies were published in English journals; 69 studies used a sample from mainland China; only 10 studies were longitudinal.

There were different types of report: 47 studies of child self-reports, 16 studies of adult (including young adult) self-reports, 27 studies of parent-reports, and one study of comparing parent and child reports.

A total of 70 studies utilised researcher-developed questions to measure different types of child maltreatment, including the Conflict Tactics Scale (CTS), the Parent-Child Conflict Tactics Scale (CTSPC), the Childhood Trauma Questionnaire (CTQ), the Juvenile Victimization Questionnaire (JVQ), the International Society for the Prevention of Child Abuse and Neglect (ISPCAN) Child Abuse Screening Tools Children's Version (ICAST-C), the Abuse Assessment Screen Questionnaire (AAS), and other tools developed by

Chinese researchers such as the Child Psychological Abuse and Neglect Scale (CPANS) and the Screening Questionnaire of Child Abuse (SQCA). There was a great discrepancy in the number of items or questions used to measure maltreatment (ranging from 1 to 18). Not all studies specified a prevalence period: 42 studies with a period equal to or less than one year, 22 studies asking about the lifetime prevalence or the prevalence before a certain age (e.g., 14, 16 or 18), 9 studies asking about both the preceding-year prevalence and lifetime prevalence, and 18 studies without specifying a time period.

3.4.2 Studies of Consequences

There were 76 studies on the consequences of child maltreatment. **Table 3-5** highlights key information, including author and year of publication, language of publication (e.g., English or Chinese), study design (e.g., cross-sectional, case-control, or cohort study), geographical location (e.g., mainland China, Hong Kong or Taiwan), sample size, sample/report-type (e.g., child self-report, young adult self-report, adult self-report, or parent-report), key maltreatment variables, and consequences studied.

Of the 76 studies, there were 65 studies on physical maltreatment and 41 studies on emotional maltreatment; 60 studies were published in English journals; 61 studies used a sample from mainland China; only 10 were longitudinal studies and seven were case-control studies.

Studies of consequences are grouped into five categories: (1) mental health outcomes ($n=57$), including internalising and externalising behaviours, mental disorders, personality, suicidal ideation/attempts, and self-injuries; (2) health risk behaviours ($n=15$), including drinking problems, substance abuse, internet addiction, and risky sexual behaviours; (3) Aggression/aggressive tendencies ($n=4$); (4) Intimate partner violence (IPV) victimisation ($n=1$); (5) physical health outcomes including self-perceived health ($n=5$).

Table 3-4 A summary of studies on prevalence and contributing factors of child maltreatment in China (N=91)

Author & Year	Language	Design	Site	Sample size	Report type	Measure of CM	Time Period (month)	No. of items for PM/EM	Contributing factors (OR)			Prevalence (%)		
									PM	EM	PM	EM		
Kim 2017 ⁸⁵	En	CS	HK	3016	A/YA	DS	12	NA	Parent: Alcohol dependence (severe PM: OR=4.16)			Severe: 2.9(males)/3.8(females); Minor: 23.7(males)/ 29.9(females)		
Gao 2017 ⁸⁶	En	CS	Mainland	667/496	C	CTSPC	12	17	Child: Delinquency (OR=1.06)/Poor academic performance (OR=1.16-1.19) Parent-child: Low parent attachment (OR=1.08-1.10) Family: Economic adversity(OR=1.15-1.18)/ Migration(OR=1.38-1.44)	Child: Delinquency (OR=1.23)/Poor academic performance (OR=1.20) Parent-child: Low parent attachment (OR=1.08-1.19) Family: Economic adversity(OR=1.23)/ Migration(OR=1.49) Community: Neighbourhood disorganization(OR=1.02-1.04)	Any: 54.4 Severe: 18.1 Moderate: 39.2 Minor: 48.6	78.7		
Xing 2017 ⁸⁷	En	CS	Mainland	328	P	CTSPC	12	6/5	Parent: Maternal anxiety($P<0.05$) [‡] Parent-child: Children's negative emotionality reported by parents($P<0.05$) [‡]	Parent: Maternal anxiety($P<0.05$) [‡] Parent-child: Children's negative emotionality reported by parents ($P<0.05$) [‡]				
Wang 2017 ⁸⁸	En	CS	Mainland	552	C	CTQ	Lifetime	5/5				4.0	10.5	
Lo 2017 ⁸⁹	En	CS	HK	392	P	CTSPC	12	4	Parent: Maternal stressors(physical wellbeing and negative emotional states) (OR=1.60) Parent-child: Poor mother-child interaction (OR=1.85); Maternal report of behavioural issue (OR=2.07) Family: Family background/structure (OR=1.57)				Moderate: 31.1	
Lin 2017 ⁹⁰	En	CS	Mainland	662	C	CTQ	Under 16	5/5				10.3	14.7	
Li 2017 ⁹¹	En	CO	Mainland	276	A	CTQ	NA	5/5				6.0	6.3	
Chen 2017 ⁹²	En	CS	Mainland	507	YA	CTQ	Under 18	5/5				18.3	21.8	

Zhu 2017 ⁹³	En	CS	Mainland	342	C	DS	6	3	Child: Aggressive behaviour (NS) [#]			
Wang 2017 ⁹⁴	En	CS	Mainland	702	P	CTSPC	12	6/5		Parent-child: Parent report of child externalising behaviour ($P<0.05$) [‡]		
Zhang 2016 ⁹⁵	En	CS	Mainland	1002	P	DS	3	6		Parent: Childhood EM(OR=1.96)/Recognition of EM(OR=0.87)	69.5	
										Child: Decrease with age (OR=0.73)/Academic performance(NS) [#]		
										Parent-child: Parental report of child misbehaviour (OR=1.78)/Parenting: hostility(OR=1.38) and over-reactivity(OR=1.35)		
Wang 2016 ⁹⁶	En	CS	Mainland	5726	C	CTQ	Lifetime	5/5			7.6	11
Shen 2016 ⁹⁷	En	CS	TW	6233	C	CEVQ/LONGSCAN	12	7/4			21(both parents)	43
Hsieh 2016 ⁹⁸	En	CS	TW	6233	C	CEVQ/LONGSCAN	12	7			15(Father)/14.7(Mother)	
Cui 2016 ⁹⁹	En	CS	Mainland	997	C	CTSPC	12	13/5	Parent: Father(minor PM: OR=0.88) Child: Boy(OR=1.22-1.42)	Parent: Father(OR=0.81)	Moderate/severe: Boy:31.7(Father)/28.2(Mother); Girl:15.2(Father)/22.6(Mother) Minor: Boy:50.9(Father)/53.5(Mother); Girl:39.9(Father)/47.1(Mother)	Boy:57.7(Father)/66.3(Mother); Girl:59.1(Father)/68.5(Mother)
Cui 2016 ¹⁰⁰	En	CO	Mainland	256	C	CTSPC	12	13/5	Child: IQ(Maternal Minor PM: OR=1.02)/Self-assessed externalising behaviours (Paternal Moderate/severe PM:OR=0.59) Parent-child: Maternal report of child externalising (Parental Moderate/severe PM: OR=1.38-1.47) and internalising behaviours (Maternal Moderate/severe PM: OR=0.77)		Moderate/severe: 25.0 Minor: :50.0	

Chen 2016 ¹⁰¹	Ch	CS	Mainland	1164	P	DS	3	6		Parent: Mother(OR=1.64)/Childhood EM(OR=2.06)/Approval of physical punishment(OR=2.62)/Lack of awareness of harm by EM(OR=1.67) Child: Boy(OR=1.68) Family: Low ES(OR=1.75)	78.1	
Chan 2016 ¹⁰²	En	CS	HK	5841	C	CTSPC	Lifetime	13/5	Child: Disability(OR=1.57)/ Age(Minor PM, 9-11 years vs 15 or above: OR=1.25) Family: Maternal low education(Minor: OR=1.59; Moderate/severe: OR=1.62)/Paternal low education(Moderate/severe: OR=1.36-1.44)/Physical IPV(Minor: OR=2.17; Moderate/severe: OR=3.38)/Emotional IPV(Minor: OR=2.32; Moderate/severe: OR=2.33)	Child: Boy(OR=0.85)/Young age(9-11 years vs 15 or above: OR=0.70) Family: Maternal low education(OR=1.44)/Father unemployed(OR=1.56)/ Physical IPV(OR=2.15)/Emotional IPV(OR=6.23)	Moderate/severe: 32.2 Minor: 58.4	48.6
Guo 2016 ¹⁰³	Ch	CS	Mainland	809	YA	CTQ	NA	5			29.2	
Chen 2016 ¹⁰⁴	Ch	CS	Mainland	706	C	CPANS	Lifetime	14			30.6	
Wan 2015 ¹⁰⁵	En	CS	Mainland	14221	C	CTSPC/ ACEs	under 16	5/4	Child: Boy ($P<0.05$)	Child: Girl ($P<0.05$)	41	38
Shen 2015 ¹⁰⁶	En	CS	Mainland	736	C	CTQ	Lifetime	5/5	Parent: Paternal gambling problems(OR=2.70)/Health status; Child: Boy(OR=0.37)	Parent: Maternal Drinking(OR=5.00)	7.1	10.6
Liu 2015 ¹⁰⁷	En	CS	Mainland	639 pairs	P	CTSPC	12	13/5	Parent-child: High parenting stress of mothers and fathers($P<0.05$) ⁺ Family: Mother's low marital satisfaction($P<0.05$) ⁺	Parent-child: High parenting stress of mothers and fathers($P<0.05$) ⁺ Family: Mother's low marital satisfaction($P<0.05$) ⁺		
Lansford 2015 ⁵⁸	En	CO	Mainland	241	P	MICS	1	6	Parent: Perceived normativeness of physical punishment in the community by mothers($P<0.05$) ⁺ /Mother's and father's belief in the necessity of using physical punishment($P<0.05$) ⁺ Parent-child: Parent reports of child externalising/internalising behaviours($P<0.05$) ⁺		Minor:7%-13%	

Feng 2015 ¹⁰⁸	En	CS	TW	5276	C	ICAST-C	12/lifetime	9/8	Child: Boy($P<0.05$) [‡]		36.3(12m)/ 61.4(Lifetime)	56.7(12m)/ 69.2(Lifetime)
Chan 2015 ¹⁰⁹	En	CS	HK	5841	C	CTSPC	12/lifetime	6	Child: Age(Minor, 9-14 years vs 15 or above: OR=2.58-6.17; Moderate/severe, 9-14 years vs 15 or above: OR=1.98-2.75); Family: Receiving public financial assistance(Minor:OR=1.65)/Father low education(Moderate/severe:OR=1.54)/ Physical IPV(Minor:OR=2.30; Moderate/severe:OR=3.28)		Moderate/severe: 13.9(12m)/32.2(Lifetime)	28.4(12m)/ 48.6(Lifetime)
Qi 2015 ¹¹⁰	Ch	CS	Mainland	5390	C	SQCA	Lifetime	3/1			52.6(hurt with knife or stick)/26.3(beat up) /26.3(slap on the face)	74.0
Qi 2015 ¹¹¹	Ch	CS	Mainland	5390	C	SQCA	12	3/1			19.7(hurt with knife or stick)/13.1(beat up)/10.9(slap on the face)	30.8
Wang 2014 ¹¹²	En	CS	Mainland	635 pairs	P	CTSPC	12/lifetime	6	Parent: Childhood experience of Minor PM(Minor PM: $P<0.05$) [‡] ; Family: Low marital satisfaction($P<0.05$) [‡]			
Wang 2014 ¹¹³	En	CS	Mainland	761 pairs	P	CTSPC	12/lifetime	6	Parent: Childhood experience of Minor PM(Minor PM: $P<0.05$) [‡]			
Wang 2014 ¹¹⁴	En	CS	Mainland	2518 pairs	P	CTSPC	12/lifetime	9/5	Parent: Mother(Minor and moderate/severe: $P<0.05$) [‡] /Fathers younger than 35(Minor: OR=1.59)	Parent: Mother($P<0.05$) [‡] / Fathers younger than 35(OR=1.42)	Moderate: 15.1(mother)/12.9(father)	80.3(mother)/74.9(father)
									Child: Boy(Minor and moderate/severe: $P<0.05$) [‡] /Age trend from age 3-15($P<0.05$) [‡]	Child: Boy($P<0.05$) [‡] /Age trend from age 3-15 ($P<0.05$) [‡]	Minor: 53.7(mother)/48.3(father)	
									Family: Low SES(Moderate/severe: $P<0.05$) [‡] /High SES(Minor: $P<0.05$) [‡]	Family: SES(NS) [#]		
Li 2014 ¹¹⁵	En	CS	Mainland	485	C	CTQ	Lifetime	5/5			11.1	18.8
Lansford 2014 ¹¹⁶	En	CO	Mainland	120	P	MICS	1	5/2	Parent: Parents' positive evaluations of harsh discipline ($P<0.05$) [‡]	Parent: Parents' positive evaluations of harsh discipline ($P<0.05$) [‡]		
Niu 2014 ¹¹⁷	Ch	CS	Mainland	2653	YA	CTQ	NA	5/5			17.4	64.8
Liu 2014 ¹¹⁸	Ch	CS	Mainland	3936	C	SQCA	12	3/1			1.5(hurt with knife or stick)/1.2(beat up) /8.5(slap on the face)	22.3

Liu 2014 ¹¹⁹	Ch	CS	Mainland	3936	C	SQCA	12	3/1			
Xing 2013 ¹²⁰	En	CO	Mainland	454	C	CTSPC	6	6	Child: Internalising problem behaviours and Minor PM (Boys: P<0.05; Girls: P>0.05) [‡]		
Dong 2013 ¹²¹	En	CS	Mainland	3155	C	JVQ	12	1/1		4.4	11.3
Shuster 2012 ¹²²	En	CO	Mainland	350/270	C	PCM	NA	6	Parent: maternal social harmony: protective factor (P<0.05) [‡]		
Chan 2012 ¹²³	En	CO	HK	487	P	CTSPC	12/ lifetime	13	Family: IPV against pregnant women (OR = 1.78) /Family with only one child (OR = 2.47)	Severe: 0.3(12m)/0(lifetime)	
										Moderate: 4.7(12m)/4.9(lifetime)	
										Minor: 75.1(12m)/75.4(lifetime)	
Chan 2012 ¹²⁴	En	CS	HK	1093	C/P	CTSPC	12/ lifetime	13/5		Child reported any PM from fathers: 16.7(12m)/37.1(lifetime); any PM from mothers: 17.4(12m)/35.7(lifetime)	Child reported EM from fathers: 45.2(12m)/63.3(lifetime); EM from mothers: 46.7(12m)/61(lifetime)
Wang 2012 ¹²⁵	Ch	CS	Mainland	1762	YA	DS	under 16	2/1		59.4	61.5
Xing 2011 ¹²⁶	En	CO	Mainland	454	C	CTSPC	6	9	Child: Externalising problem behaviours (Boys: P<0.05; Girls: P>0.05) [‡]	Moderate: 16.5; Minor: 35-41.2	

Ma 2011 ¹²⁷	En	CS	Mainland	1394	P	DS	3	7	<p>Parent: Childhood EM (Moderate PM:OR=1.28)/ Definition of PM (Minor PM:OR=2.02; Moderate: OR=1.34)</p> <p>Child: Decrease with age(Minor PM:OR=0.82)/Academic performance</p> <p>Parent-child: Parental report of child problem behaviours(Minor PM:OR=1.40; Moderate: OR=1.77)/ Parenting: hostility and over-reactivity(Minor PM:OR=1.21-1.44; Moderate: OR=1.26-1.45)</p> <p>Family: High Education (Moderate PM:OR=0.60-0.70)</p>	<p>Moderate: 42.7</p> <p>Minor: 21.6</p>	
Li 2011 ¹²⁸	En	CS	Mainland	671/1240	P	PPQ/PCM	NA	6/5	<p>Family: IPV($P<0.05$)⁺</p>	<p>Family: IPV($P<0.05$)⁺</p>	
Lee 2011 ¹²⁹	En	CS	Mainland	5201	A/YA	CTS	under 18	NA		8.9	
Chou 2011 ¹³⁰	En	CS	TW	1966	C	C-UCLA PTSD-RI	Lifetime	1		22	
Chan 2011 ¹³¹	En	CS	HK	2062	C	CTSPC	12/ lifetime	13/5		23.3(12m)/45.1(lifetime)	57.6(12m)/72(lifetime)
Chan 2011 ¹³²	En	CS	HK	2363	P	CTSPC	12/ lifetime	13/5	<p>Family: IPV (Minor PM: OR=3.10; Moderate/severe: OR=3.54)</p>	<p>Moderate/severe: 5.9(12m)/10(lifetime)</p> <p>Minor: 32.8(12m)/43.8(lifetime)</p>	61.2(12m)/68.5(lifetime)
Chan 2011 ⁵¹	En	CS	HK	1094	C	CTSPC	12/ lifetime	13/5	<p>Family: IPV(Minor PM: OR=5.41; Moderate/severe: OR=8.55)</p>	<p>Moderate/severe: 13.6(12m)/26.6(lifetime)</p> <p>Minor: 18.1(12m)/39.5(lifetime)</p>	54.6(12m)/70.9(lifetime)
Xiao 2011 ¹³³	Ch	CS	Mainland	560	P	CTSPC	3	8	<p>Parent: Mother($P<0.05$)⁺/ Childhood maltreatment($P<0.05$)⁺</p> <p>Child: Boy($P<0.05$)⁺</p> <p>Family: Unemployment($P<0.05$)⁺/ Low Education($P<0.05$)⁺</p>	<p>Any: 77.7</p> <p>Moderate: 16.1</p> <p>Minor:61.6</p>	

Lin 2011 ¹³⁴	Ch	CS	Mainland	7475	C	CTQ	NA	5/5	<p>Parent: Drinking (OR=1.16-1.20)</p> <p>Child: Girl (OR=0.62)/Decrease with Age (OR=0.90)</p> <p>Family: Single parent (OR=1.39)/More than one child (OR=1.41)/Bad living conditions(OR=1.42)</p>	<p>Parent: Drinking(OR=1.21-1.44)</p> <p>Child: Girl (OR=1.30)/Increase with Age (OR=1.12)</p> <p>Family: Single parent (OR=1.46)/Remarried(OR=2.42)/ More than one child (OR=1.19)/Bad living conditions(OR=1.60)</p>	31.5	59.4
Yong 2011 ¹³⁵	Ch	CS	Mainland	1523	C	SQCA	NA	3/1			24	32.2
Yang 2011 ¹³⁶	Ch	CS	Mainland	733	YA	CECA.Q	NA	1			4.6	
Xing 2010 ¹³⁷	En	CS	Mainland	13512	C	DS	6	1/1			32.2	54.2
Lansford 2010 ¹³⁸	En	CS	Mainland	241	P	MICS	1	6	<p>Parent: Mother($P<0.05$)⁺</p> <p>Child: Boy($P<0.05$)⁺</p>		<p>Moderate:10.4</p> <p>Minor: 44.8</p>	
Fuh 2010 ¹³⁹	En	CS	TW	3955	C	DS	NA	1			23.9	
Cheng 2010 ¹⁴⁰	En	CS	Mainland	1628	A/YA	DS	NA	3			14.4	
Li 2010 ¹⁴¹	Ch	CS	Mainland	7702	C	SQCA	NA	3/1			10(slap on the face/beat up)/ 3.6(hurt with knife or stick)	23.3
Yan 2009 ¹⁴²	Ch	CS	Mainland	1200	YA	CTQ	under 16	3/1			4.7-29.2 (different items)	30.1(insult)
*Wong 2009 ¹⁴³	En	CS	Mainland	6593	C	CTS/CT SPC	6	14/7	<p>Child: Age(14 or below vs 15 or above: OR=1.5)</p> <p>Family: Low Education (OR=1.2-1.3)/ Place of origin (local vs non-local: OR=0.8)/House type(own house vs others: 0.8)</p>		<p>Severe: 2.8</p> <p>Moderate: 15.1</p> <p>Minor: 23.2</p>	78.3
/Leung 2008 ¹⁴⁴												
Wong 2009 ¹⁴⁵	En	CS	Mainland	6628	C	CTS/CT SPC	6	14	<p>Child: Decrease with Age (OR=0.84)</p> <p>Family: Father's high education (OR=1.41)/Mother's occupation (professional vs worker/former, OR=1.58)/ Low SES (OR=1.31-1.99)</p> <p>Community: High SES (OR>1)</p>		<p>Severe: 2.8</p> <p>Moderate: 15.1</p> <p>Minor: 23.2</p>	

Shen 2009 ¹⁴⁶	En	CS	TW	1924	YA	CTSPC	under 18	8	Family: IPV($P<0.05$) [‡]	2.4-11.8 (decrease with severity of each item)	
Hester 2009 ¹⁴⁷	En	CS	Mainland	498	YA	DS	NA	2	Child: Boy($P<0.05$) [‡]	22.1-27.1	
*Yen 2008 ^{148,149}	En	CS	TW	1684	C	AAS	Lifetime	1	Parent: Drinking habitually (OR=1.37) Family: Poor family function(OR=1.68)/ Family conflicts(OR=2.60)	22.2	
Qin 2008 ¹⁵⁰	Ch	CS	Mainland	844	C	DS	12	NA	Child: Poor health status (OR=1.88) Parent-child: Unjustifiable parenting style(OR=3.00-5.43)/Good relationship with parents(OR=0.45-0.55) Family: Bad marital status(OR=1.77)/Harmonious family atmosphere (OR=0.45)		47.3
Liu 2008 ¹⁵¹	En	CS	Mainland	1920	P	DS	NA	1/1		21.7	8.5
Xu 2008 ¹⁵²	Ch	CS	Mainland	4585	C	CTSPC	6	23		Any: 27.4; Severe: 2.7 Moderate: 15.5; Minor: 23.8	79.5
Xiao 2008 ⁷⁵	Ch	CS	Mainland	10894	C	CTSPC	12	17/7		Repeated severe: 8.5 (at least one item happened at least three times during the last year); Repeated moderate: 23.6	20.4(repeated)
Chen 2008 ¹⁵³	Ch	CS	Mainland	528	YA	DS	under 16	4/4		31.4	15.0
Wang 2007 ⁷⁶	Ch	CS	Mainland	810	P	DS	12	15	Child: Boy(Moderate, $P<0.05$) [‡]	Any: 68.9 Moderate: 23.1 Minor: 67.3 NCP: 33	

*Xiao 2006 ¹⁵⁴ / Ross 2005 ¹⁵⁵	En	CC	Mainland	423/304/ 618	A	DDIS	NA	1				0.1(non-clinical sample)		
Tang 2006 ¹⁵⁶	En	CS	HK	1662	P	CTS	12	8	Parent: Sex/ Decrease with Age (Minor: OR=0.99)			Moderate/severe: 4.5		
									Child: Girl (Minor: OR=0.83)/Decrease with Age (Minor: OR=0.83)			Minor: 57.5		
									Parent-child: Parental evaluation of child externalising problem behaviours(Minor: OR=1.35; Moderate/severe: OR=1.34)					
									Family: Employment (Minor: OR=0.67)/ Marital satisfaction (Minor: OR=0.98; Moderate/severe: OR=0.99)					
Tao 2006 ¹⁵⁷	Ch	CS	Mainland	5141	C	CTSPC	12	17/7	Child: Girl(Moderate: OR=0.71; Severe: OR=0.54)	Child: Increase with age (OR=1.91-2.19)		Repeated severe: 8.0	14.4(repeated)	
									Family: Single child (Moderate: OR=0.83)/Single parent (Moderate: OR=1.44; Severe: OR=1.79)/Father working outside for a long time (Moderate: OR=1.24)	Family: Single child (OR=0.76)/Step-mother(OR=3.55)/Father working outside for a long time (OR=1.28)		Repeated moderate: 18.6		
Lau 2005 ¹⁵⁸	En	CS	HK	95788	C	DS	6	2	Child: Academic pressure (OR=1.74-4.76)			2.9-4.1		
									Parent-child: Unfavourable parental attitudes toward their children (OR=1.37-2.21)					
Tao 2004 ⁷⁷	Ch	CS	Mainland	2192	P	DS	1	5	Child: Girl (OR=0.71)/Older Age(OR=0.68)			39.3(hitting)/3.5(standing/kneeling)/2.2(not being allowed to go home) /3.1(withholding a meal)		
									Family: Paternal high education(OR=0.84)/ More than one child (OR=1.35)					
Lau 2003 ¹⁵⁹	En	CS	HK	489	C	DS	6	3				4.5-10.9		
Feng 2003 ¹⁶⁰	Ch	CS	Mainland	2363	P	DS	1	1	Child: Older age(OR=0.90)/Adoption status (OR=0.20)			39.3		
									Family: Maternal high education(OR=0.96)/ Single child(OR=0.59)					
Li 2001 ¹⁶¹	En	CS	Mainland	1222 pairs	P	DS	NA	1				30.9		

Li 2000 ¹⁶²	En	CS	Mainland	2563	P	DS	NA	1	Community: Rural area (P<0.05) [†]	5.7-19.0 (differ with urban/residence and minority)
Kim 2000 ¹⁶³	En	CS	Mainland	483	C	CTS	12	8		Any: 70.6 Moderate/severe: 22.6 Minor: 42.2
Lau 1999 ¹⁶⁴	En	CS	HK	3355	C	DS	3	3		1.1-4.9
*Tang 1998 ^{165,166}	En	CS	HK	1019	P	CTS	12	8	Parent: Mother (P<0.05) [†] /Young parents (P<0.05) [†] ; Child: Boy (moderate/severe: P<0.05) [†] /Decrease with age from 3-16 years (P<0.05) [†] ; Family: Unemployed(P<0.05) [†] / Only one child (P<0.05) [†]	Moderate/severe: 46.1 Minor: 52.6
Tang 1996 ¹⁶⁷	En	CS	HK	375	YA	CTS	under 17/18	9/5	Family: Only one child (P<0.05) [†]	Moderate/severe: 8.5; 62.5 Minor: 13.2
Chan 1994 ¹⁶⁸	En	CC	HK	37/37	P	Identified by CPS	NA	NA	Parent-child: Parenting stress(P<0.05) [†] ; Family: Low social support and marital satisfaction (P<0.05) [†]	
*Wang 1994 ^{169/} Meng 1994 ¹⁷⁰	Ch	CS	Mainland	1139	C	DS	1	1	Parent: Father's experience of childhood maltreatment(P<0.05) [†] ; Child: Boy(P<0.05) [†] /Decrease with age(lowest in age group of 0-7 years, P<0.05) [†] /Poor academic performance (P<0.05) [†] ; Family: Low marital satisfaction (P<0.05) [†]	43.1

Note. *Publications from the same study reported the same results; #NS=not significant; [†] P values were provided when ORs were not available.

Type of CM (child maltreatment): PM= physical maltreatment; EM= emotional maltreatment; NCP=non-contact punishment.

Language: En=English; Ch=Chinese.

Study design: CS=cross-sectional study; CC=case-control study; CO=cohort study.

Geographical location: Mainland= mainland China; HK=Hong Kong; TW=Taiwan.

Report type: C=child self-report; YA= young adult self-report; A=adult self-report; P=parent report.

Measure of CM: CTSPC=Parent-Child Conflict Tactics scale; CTS=Conflict Tactics scale; CTQ=Childhood Trauma Questionnaire; JVQ=Juvenile Victimization Questionnaire; AAS=Abuse Assessment Screen Questionnaire; ICAST-C=the International Society for the Prevention of Child Abuse and Neglect (ISPCAN) Child Abuse Screening Tools Children's Home version; CECA.Q=Childhood experience of care and abuse questionnaire; CPANS=Child Psychological Abuse and Neglect Scale developed by Chinese researcher; CEVQ=Childhood Experiences of Violence Questionnaire; LONGSCAN=Longitudinal Studies of Child Abuse and Neglect; SQCA=screening questionnaire of child abuse by Chinese researcher; MICS= UNICEF Multi-Cluster Indicator Survey; PPQ= Parenting Practice Questionnaire; PCM=Psychological Control measure; C-UCLA PTSD-RI= the Chinese version of UCLA PTSD Reaction Index; DDIS= Dissociative Disorders Interview Schedule (Ross 1997); ACEs= Adverse Childhood Experiences; DS=designed specifically for the study.

Contributing factors: ES=economic status; SES= socio-economic status; IPV= Intimate partner violence.

Table 3-5 A summary of studies on consequences of child maltreatment in China (N=76)

Author & Year	Language	Design	Site	Sample size	Report type	CM	Outcome (OR)*	Type of outcome
Zhu 2017 ⁹³	En	CO	Mainland	342	C	Minor PM	Child: Physical aggression (bidirectional) (P<0.05)	ExB
Zhang 2017 ¹⁷¹	En	CS	Mainland	546	C	PM/EM	Child: Aggressive behaviour (PM: P<0.05; EM:P<0.05)	ExB
Li 2017 ⁹¹	En	CO	Mainland	276	A	PM/EM	Adult: Antepartum depression (PM: P>0.05; EM:P<0.05)/postpartum depression (PM: P>0.05; EM:P>0.05)	MH
Chen 2017 ⁹²	En	CS	Mainland	507	YA	PM/EM	Male adult: internet addiction (EM: OR=2.38); suicidal behaviour (EM: OR=12.47); Female adult: self-harm behaviour (EM: OR = 15.03); suicidal behaviour (EM: OR = 5.16); All adults: internet addiction (PM: OR=2.50)	HRB
Alampay ¹⁷²	En	CO	Mainland	185	C/P	Minor PM	Child: parent-reported externalising (frequency of PM: P<0.05) and internalising behaviour (frequency of PM: P>0.05); child self-reported aggression (frequency: P<0.05; severity/justness of PM: P<0.05)	InB/ExB
Xing 2017 ¹⁷³	En	CS	Mainland	358	P	Minor PM	Child: Aggressive/delinquent behaviour (P<0.05)	ExB
Wang 2017 ⁹⁴	En	CO	Mainland	702	P	Minor PM/EM	Child: Externalising behaviour (bidirectional) (Minor PM: P<0.05; EM:P<0.05)	ExB
Kwok 2017 ¹⁷⁴	En	CO	HK	368	P	Minor PM/EM	Child: Anxiety (Minor PM: P<0.05; EM:P<0.05)	InB
Kim 2017 ⁸⁵	En	CS	HK	3016	A/YA	PM	Male adult: past-month binge drinker(OR=1.69); past-year alcohol abuser(OR=2.23) Female adult: past-year alcohol abuser(OR=5.29); alcohol dependent (OR=3.98)	HRB
Zou 2016 ¹⁷⁵	En	CC	Mainland	142/146	A	PM/EM	Adult: Panic symptom severity (PM: P<0.05; EM:P<0.05)	MH
Zhang 2016 ¹⁷⁶	En	CS	Mainland	507	C	PM/EM	Child: Aggressive behaviour (PM: P<0.05; EM:P<0.05)	ExB
Yan 2016 ¹⁷⁷	En	CS	HK	1239	A/YA	PM/WV	Adult: physical assault between intimate partners (PM: OR=4.91); psychological aggression between intimate partners (PM: OR=2.75); injury caused by intimate partner violence (PM: OR=4.81)	IPV
Xing 2016 ¹⁷⁸	En	CS	Mainland	328	C/P	Minor PM	Child: Hyperactivity (P<0.05)	ExB
Wang 2016 ¹⁷⁹	En	CS	Mainland	1971	P	PM of different severity/EM	Child: Anxiety (EM: P<0.05; Minor PM by mothers: P<0.05; Severe PM: P>0.05); EM was the most unique predictor of children's anxiety.	InB
Wang 2016 ⁹⁶	En	CS	Mainland	5726	C	PM/EM	Child: School bullying; both PM and EM were associated with involvement in cyber bullying as bullies, victims, and bully-victims (OR=1.13-1.26).	ExB
Liu 2016 ¹⁸⁰	En	CC	Mainland	102/106	A	EM/WV	Adult: Male adult alcohol dependence (P<0.05)	HRB
Li 2016 ¹⁸¹	En	CS	Mainland	2046	YA	PM	Adult: Major depression disorder (OR=1.79)	MH
Li 2016 ¹⁸²	En	CC	Mainland	259/269	C	PM/EM	EM predicted child emotional problems (P<0.05) but not behavioural problems; PM predicted child behavioural problems (P<0.05) but not emotional problems.	InB/ExB
Hsieh 2016 ⁹⁸	En	CS	TW	6233	C	PM	Child: Internet addiction (P<0.05)/PTSD (P<0.05)	HRB/MH
Bai 2016 ¹⁸³	En	CS	Mainland	208	P	EM	Adult: Parenting stress (P<0.05)	MH
Yu 2016 ¹⁸⁴	Ch	CS	Mainland	553	YA	EM	Adult: Social adaptability (P<0.05)	MH

Guo 2016 ¹⁰³	Ch	CS	Mainland	809	YA	PM	Adult: Aggressive tendencies (P<0.05)	Aggression
Chen 2016 ¹⁰⁴	Ch	CS	Mainland	706	C	EM	Child: Aggressive tendencies (P<0.05)	Aggression
Wan 2015 ¹⁰⁵	En	CS	Mainland	14221	C	PM/EM	Child: Non-Suicidal Self-Injury(PM: OR=2.66-4.80; EM: OR=2.31-4.61)	HRB
Liu 2015 ¹⁸⁵	Ch	CS	Mainland	1744	C	PM	Child: Early puberty timing in girls (OR=2.45)	PH
Liu 2015 ¹⁸⁶	En	CO	Mainland	311	P	EM	Child: internalising and externalising behaviour problems (P<0.05)	InB/ExB
Kwok 2015 ¹⁸⁷	En	CS	Mainland	527	C	Moderate/severe PM	Suicidal ideation (P<0.05)	MH
Zhao 2015 ¹⁸⁸	Ch	CS	Mainland	909	P	PM/EM/WV	Child: Behaviours problems (EM: P<0.05)	InB/ExB
Su 2015 ¹⁸⁹	Ch	CS	Mainland	4617	C	PM/EM	Child: Non-suicidal self-injury (PM: P<0.05; EM: P<0.05)	HRB
Li 2015 ¹⁹⁰	Ch	CS	Mainland	5116	C	PM/EM	Child: Physical sub-health (P<0.05)	PH
Chen 2015 ¹⁹¹	Ch	CS	Mainland	900	YA	EM	Adult: Aggressive tendencies (P<0.05)	Aggression
Chen 2015 ¹⁹²	Ch	CS	Mainland	809	YA	PM/EM	Adult: Aggressive tendencies (P<0.05)	Aggression
Yen 2014 ¹⁹³	En	CS	TW	6160	C	PM	Child: Bully-victims (P<0.05)	ExB
Li 2014 ¹¹⁵	En	CS	Mainland	485	C	PM/EM	Child: Personality (PM: P<0.05; EM: P<0.05)	Personality
Lansford 2014 ¹⁹⁴	En	CO	Mainland	120 families	C/P	Minor PM	Child: anxiety and aggression (P<0.05)	InB/ExB
Xing 2013 ¹²⁰	En	CO	Mainland	454	C	Minor PM	Child: anxiety/depression/withdrawn (bidirectional) (P<0.05)	InB
Wu 2013 ¹⁹⁵	Ch	CS	TW	3441	C	Minor PM/EM	Child: School bullying (Minor PM: P<0.05; EM: P<0.05)	ExB
Kwok 2013 ¹⁹⁶	En	CS	Mainland	560	C	PM/EM	Child: Suicidal ideation (PM: P<0.05; EM: P>0.05)	MH
Zhu 2013 ¹⁹⁷	Ch	CS	Mainland	889	C	PM/EM	Child: Anxiety (PM: P<0.05; EM: P<0.05)	InB
Zhang 2012 ¹⁹⁸	En	CS	Mainland	1402	C/A/YA	PM/EM	Child/Adult: Personality disorders (PM: P<0.05; EM: P<0.05)	MH
Shuster 2012 ¹²²	En	CO	Mainland	350/270	C/P	EM	Child: Aggression (P<0.05)	ExB
Jia 2012 ¹⁹⁹	Ch	CS	Mainland	733	YA	EM	Adult: Personality/Alexithymia (P<0.05)	Personality
Xing 2011 ¹²⁶	En	CO	Mainland	454	C	PM of different severity	Child: aggressive/delinquent behaviour (bidirectional) (Girls: P<0.05; Boys: P>0.05)	ExB
Tao 2011 ²⁰⁰	En	CC	Mainland	1970/2597	A	PM	Adult: Major depression disorder (OR=3.39)	MH
Ng 2011 ²⁰¹	En	CC	HK	80/80	A	PM/EM	Adult: Depression (PM: P<0.05; EM: P<0.05)	MH
Li 2011 ¹²⁸	En	CS	Mainland	671/1240	C/P	PM/EM	Child: Overt and Relational Aggression (PM: P<0.05; EM: P<0.05)	ExB
Cheng 2011 ²⁰²	En	CS	Mainland	1628	A/YA	PM	Robust associations with adult drinking outcomes (OR=2.0-7.7)	HRB

Cheng 2011 ²⁰³	En	CS	Mainland	1628	A/YA	PM	Robust associations with adult drinking and drinking problems, as well as more rapid transitions from first drink to first drinking problem (Hazard Ratios=2.0-2.7)	HRB
Yao 2011 ²⁰⁴	Ch	CS	Mainland	733	YA	EM	Adult: Depression (P<0.05)	InB
Yang 2011 ¹³⁶	Ch	CS	Mainland	733	YA	PM	Adult: Depression(P<0.05)/Personality(P<0.05)/Negative coping style(P<0.05)	InB/Personality/MH
Ma 2011 ²⁰⁵	Ch	CS	Mainland	3160	C	EM	Child: Depression (P<0.05)	InB
Chan 2011 ¹³¹	En	CS	HK	2062	C	PM/WV	Child: Self-esteem(PM: P<0.05; WV: P<0.05)/violent responses to anger (PM: P<0.05; WV: P<0.05)	MH/ExB
Wan 2010 ²⁰⁶	En	CS	HK	2754	C	PM	Child: Youth suicide ideation/attempt (P<0.05), poor family relationship (P<0.05), internalising and externalising problems (P<0.05)	MH/InB/ExB/others
Lansford 2010 ²⁰⁷	En	CS	Mainland	46 pairs	C/P	Minor PM/EM	Child: anxiety and aggression (Minor PM: P<0.05; EM: P<0.05)	InB/ExB
Gershoff 2010 ²⁰⁸	En	CS	Mainland	292 mothers	C/P	Minor PM/EM	Child: anxiety and aggression (Minor PM: P<0.05; EM: P<0.05)	InB/ExB
Fuh 2010 ¹³⁹	En	CS	TW	3955	C	PM	Child: Migraine or probable migraine in adolescents (P<0.05)	PH
Cheng 2010 ¹⁴⁰	En	CS	Mainland	5201	A/YA	PM	Adult: Alcohol use disorder (P<0.05)	HRB
Yan 2009 ¹⁴²	Ch	CS	Mainland	1200	YA	PM/EM	Adult: Psychological health (PM: P<0.05; EM: P<0.05): somatisation/obsessiveness/interpersonal/sensitivity/depression/anxiety/hostility/phobic anxiety/paranoid ideation and psychoticism	MH
Wong 2009 ¹⁴³	En	CS	Mainland	6593	C	PM	Child: Physical: OR=1.4-1.9 (stomach pain, nightmare, poor appetite, shortness of breath, chest pain, dizziness, and irregular menstruation); Suicidal ideation: OR=2.0	PH/MH
Shen 2009 ¹⁴⁶	En	CS	TW	1924	YA	PM/WV	Exposure to both domestic violence and child physical maltreatment during childhood is a significant predictor of young adults' trauma symptoms and behaviour problems (P<0.05).	MH/InB/ExB
Shen 2009 ²⁰⁹	En	CS	TW	1924	YA	PM/WV	Exposure to both domestic violence and child physical maltreatment during childhood has a long-term and detrimental impact on adult self-esteem (P<0.05).	MH
Eisenberg 2009 ²¹⁰	En	CS	Mainland	697	C	Minor PM	Child: externalising symptoms/ internalising symptoms (P<0.05)	InB/ExB
Duong 2009 ²¹¹	En	CS	HK	211	C	Minor PM	Child: Peer victimisation(relational and overt forms of aggression) (P<0.05)	ExB
Yen 2008 ¹⁴⁹	En	CS	TW	1684	C	PM	Child: depression (OR=1.73), problem drinking (OR=3.35) and perceived poor mental health (OR=1.75)	InB/MH/HRB
Liu 2008 ¹⁵¹	En	CS	Mainland	1920	P	Minor PM/EM	Child: Suicidal behaviour (Minor PM: OR=3.42; EM: not significant)	MH
Xiao 2008 ⁷⁵	Ch	CS	Mainland	10894	C	PM/EM	Child: Self-injurious behaviours (PM: P<0.05; EM: P<0.05)	HRB
Chen 2008 ¹⁵³	Ch	CS	Mainland	528	YA	Minor PM/EM/NCP	Adult: Psychological symptom (PM/NCP: P<0.05; EM: P<0.05) (somatisation/obsessiveness/interpersonal/sensitivity/depression/anxiety/hostility/phobic anxiety/paranoid ideation and psychoticism)/suicide ideation and being drunk(PM/NCP: P<0.05; EM: P<0.05)	MH/HRB
Xiao 2006 ¹⁵⁴	En	CC	Mainland	423/304/618	A	PM	Adult: Pathological dissociation (dissociative disorders) (P<0.05)	MH
Nelson 2006 ²¹²	En	CS	Mainland	215	P	Minor PM/EM	PM was predictive of aggression in boys (P<0.05); EM was primarily associated with aggression in girls (P<0.05).	ExB

Tao 2006 ²¹³	Ch	CS	Mainland	5141	C	Moderate/severe PM /EM	Child: Psychological symptoms (Repeated moderate/severe PM: OR=2.76-8.00; repeated EM: OR=3.00-11.56)	MH
Lau 2005 ¹⁵⁸	En	CS	HK	95788	C	PM	Child: Substance use (OR=1.31-3.07)/drinking (OR=1.11-1.35)	HRB
Lansford 2005 ²¹⁴	En	CS	Mainland	50	P	Minor PM	Child: Internalising/externalising behaviour problems (P<0.05)	InB/ExB
Lau 2003 ¹⁵⁹	En	CS	HK	489	C	PM	Child: Psychological problems (OR=3.26-3.27)/drug abuse problems (OR=2.60-20.38)/self-injurious behaviours (OR=3.34-8.47)	MH/HRB
Li 2001 ¹⁶¹	En	CS	Mainland	1222 pairs	C/P	Minor PM	Child: behavioural problems (OR=1.31), including picky eating, refusal of food, pica, difficulty initiating sleep, nocturnal bed-wetting, temper tantrums, stuttering, disobedience, finger sucking, nail biting, playing with own genitals, eye wrinkling, grimacing, head or body rocking and swearing	Others
Lau 1999 ¹⁶⁴	En	CS	HK	3355	C	PM	Child: Self-perceived bad health (OR=1.95-3.71) /anxiety and stress (OR=1.64-2.27)/somatic illnesses, injuries, accidents, hospitalization (OR=1.64-4.78)/familial relationships (OR=1.49-5.63)/coping skills (OR=1.76-5.49)/health risk behaviours (OR=2.01-17.81), such as smoking, alcohol consumption, and fighting with others	PH/MH/InB/HRB
Doerner 1990 ²¹⁵	En	CS	TW	415	YA	PM/EM	Adult: Delinquency (PM: P<0.05; EM: P<0.05); maltreated boys are more likely to engage in a wider variety of illegal activities. Maltreated girls confine themselves to patterns involving general delinquency.	ExB

Note. * **P values were provided when ORs were not available.**

Type of CM (child maltreatment): PM= physical maltreatment; EM= emotional maltreatment; NCP=non-contact punishment; WV: witnessing inter-parental violence.

Language: En=English; Ch=Chinese.

Study design: CS=cross-sectional study; CC=case-control study; CO=cohort study.

Geographical location: Mainland= mainland China; HK=Hong Kong; TW=Taiwan;

Report type: C=child self-report; YA= young adult self-report; A=adult self-report; P=parent report.

Type of outcome: InB=internalising behaviour; ExB=externalising behaviour; MH= mental health; PH=physical health; HRB=health risk behaviour.

3.5 Prevalence of Child Maltreatment

3.5.1 Prevalence of Physical and Emotional Maltreatment

In all studies reviewed, data on the prevalence of child maltreatment were collected through cross-sectional self-completion questionnaire surveys, which may affect the accuracy of the results. The prevalence of physical maltreatment in China ranged from 0.1% (Ross *et al.*, 2005) to 77.7% (Xiao & Chen, 2011).^{133,155} Among studies that considered severity of physical maltreatment, the prevalence range was from 13.2%-75.4% for minor physical maltreatment, and from 4.5%-46.1% for moderate/severe forms.^{123,156,165,167} The prevalence of emotional maltreatment ranged from 6.3% (Li *et al.*, 2017) to 80.3% (Wang & Liu, 2014).^{91,114}

Among 69 studies in mainland China, 31 of them recruited more than 1,000 participants. Only six of them can be regarded as research of good quality in investigating prevalence rates of child maltreatment after further considering sampling strategy, sample representativeness and accuracy in the definition of child maltreatment. Firstly, they defined a clear sample from one city, one province or multiple provinces and aimed to achieve representativeness of the defined sample. Multi-stage random sampling was used and the sampling strategy was described clearly. It is worth mentioning Wan *et al.*'s (2015) study – a representative nationwide epidemiologic study involving 14,665 adolescents from 32 middle schools located in four provinces of China.¹⁰⁵ This is the only study that recruited a sample from multiple provinces and covered both rural and urban schools. It extensively considered diverse geographic and economic development in different parts of China. Four cities from were sampled from four areas: southern (Guangzhou in Guangdong Province), central (Xinxiang in Henan Province), northern (Shenyang in Liaoning Province), and western (Chongqing) areas. The other five studies were conducted in Guangzhou City (n=3), Shenzhen City (n=1) and Anhui Province (n=1).^{86,96,134,143,152} Secondly, child maltreatment was clearly defined and measured using validated tools in these studies. Four studies used CTSPC and two studies used CTQ.^{86,96,105,134,143,152} However, prevalence rates still varied greatly among the

six studies: 7.6%-54.4% for physical maltreatment and 11.0%-79.5% for emotional maltreatment.

Several studies (n=5) recruited a large sample and used validated tools to measure child maltreatment.^{75,95,121,127,157} However, the sampling process was not clearly explained or justified. For instance, Xiao *et al.* (2008) collected data from 10,894 children in Anhui Province using CTSPC.⁷⁵ However, the study selected a sample from four counties, but did not explain why they chose them. Also, the study did not sample children from urban areas. Additionally, the selection of four schools was based on convenience sampling. The non-random sampling strategy may raise the issue of representativeness of the sample in Anhui Province and subject the findings to selection bias.

There were also some large-scale population surveys, but they did not use internationally validated tools to measure child maltreatment. This poses a barrier for comparing prevalence rates of child maltreatment in both the national and international context. For instance, three studies published in Chinese journals adopted a questionnaire developed by a Chinese researcher – SQCA (The Screening Questionnaire of Child Abuse).^{110,111,118} The questionnaire only used three items for physical maltreatment and two items for emotional maltreatment.

3.5.2 Explanations for Wide Range in Prevalence Rates

The wide discrepancies in prevalence rates were probably due to several factors, such as variations in underlying definitions and perceptions, measurements, information sources, time periods, and research locations.

Definitions and perceptions of child maltreatment. The prevalence rates may vary with definitions and perceptions of child maltreatment. For instance, in Ross *et al.*'s (2005) study, data were collected from 423 inpatients and 304 outpatients at Shanghai Mental Health Centre, as well as a non-clinical sample

of 618 workers at a clothing factory. The study reported a prevalence of 0.1% in the non-clinical sample, probably because only one question was used to measure physical maltreatment: 'were you physically abused as a child or adolescent'.¹⁵⁵ It has been reported that studies using general and non-specific questions of this kind are more likely to return low prevalence rates.²¹⁶ A possible explanation is that prevalence rates in these studies largely depend on public perceptions of child maltreatment. In China specifically, there is a low awareness of physical abuse. Only acts causing serious physical injuries would be considered as maltreatment or abuse. Most people would not relate general terms, such as 'physical maltreatment' or 'physical abuse', to their personal experiences. This is complicated by the fact that physical punishment is widely accepted and utilised as a form of discipline, regarded as 'necessary' for raising children. Therefore, in order to ensure objectivity and reliability, it is recommended to use validated scales with specific items when measuring the scope of child maltreatment.

The use of validated scales. Generally among all of the studies reviewed, those using specific items adopted from validated scales were more likely to result in higher prevalence. For instance, in Xiao & Chen's (2011) study which reported a prevalence of 77.7%, eight items from CTSPC were used to measure physical maltreatment of children. A total of 560 parents of preschool children were asked about their experience of physical maltreatment of children during the last three months by using eight specific items, such as hitting children on the bottom with bare hand, slapping them on the face, hitting with a fist, or kicking them.¹³³

Prevalence rates may also differ even when the same validated questionnaire was used. Taking the two studies using CTQ for instance, Wang *et al.* (2016) reported prevalence rates of 7.6% and 11.0% for physical and emotional maltreatment, respectively, but Lin *et al.* (2011) reported much higher figures (31.5% for physical, 59.4% for emotional).^{96,134} Possible explanations for the difference are research location and age of children sampled. Wang *et al.* (2016) conducted a survey with children aged 12-18 from schools located in

three cities of Anhui Province, while Lin et al (2011) recruited children aged 8-18 from schools in Guangzhou City including suburbs and counties. As for studies using CTSPC, inconsistency of several factors made it difficult to make a direct comparison of prevalence rates among studies, such as the number of items adopted (e.g., 7, 17, 21, or 23) and time periods (e.g., 6 months, 12 months, or under a certain age).

Information source. Information source may also have an effect on the wide range of prevalence rates. There are three types of sources for information on prevalence of child maltreatment in this review: parents' reports, children's self-reports and adults/young adults' self-reports. Previous research pointed out that parents who used violence against their children were likely to under-report or refuse to disclose such experiences, due to shame, fear of future legal consequences, or social desirability bias in parents.^{52,217} It is generally acknowledged that social desirability could potentially affect parental reports of maltreatment of their children, because the informant may try to present him/herself to others in a socially desirable manner.²¹⁷ Children may also under-report experiences of maltreatment, especially in severe cases, because of fear or concerns for family privacy. Young adults might be a reliable source of information, because their recollections are relatively recent and they tend to be more open and willing to participate in research on sensitive matters.²¹⁸ Prevalence may vary with the information source. However, almost all available literature is based on the report of a single informant. Therefore, it is impossible to discern whose reports are the most accurate in this review, as prevalence rates were generally inconsistent among studies conducted within the same type of information source.

Although there is an increasing quantity of literature, little is known about the reliability and validity of the assessment of parent-to-child maltreatment. Chan's (2012) study in Hong Kong provided some insights into this issue by collecting data from 1,093 children and their parents within the same household and found that compared to children's reports, parents reported more moderate and severe physical maltreatment of children but less minor physical maltreatment

and emotional maltreatment.¹²⁴ As indicated by previous research, parents might have a tendency to minimise the severity of maltreatment towards their children, when they were describing their own violent behaviours.²¹⁹ Possible explanations may relate to parents' tendencies towards social desirability, recall bias or discrepancy between parents' and children's perceptions of the same disciplinary acts.¹²⁴ However, no such study has been conducted in mainland China, as indicated by this literature review.

There is no official data record on child maltreatment in China, but research in the UK and the US has shown a substantial discrepancy between official statistics from child protection agencies and community studies based on self-reports, highlighting the fact that only a few maltreated children received official attention.⁶

Research location. Comparisons between studies using similar methodologies indicated that the prevalence might be higher in mainland China than in Hong Kong. For instance, Cui *et al.* (2016) carried-out a questionnaire survey among children in mainland China, while Chan's (2011) study in Hong Kong also used a sample of children.^{100,132} Both studies asked exactly the same questions from CTSPC and used the same time period (12 months). The results showed that the prevalence of minor physical maltreatment was 50.0% in mainland China and 32.8% in Hong Kong; the prevalence of moderate/severe physical maltreatment in mainland China and Hong Kong was 32.2% and 5.9%, respectively. Another two studies conducted in Hong Kong and China can also be used for the comparison, indicating the same phenomenon (Tang, 1996; Kim *et al.*, 2000).^{163,167} A possible explanation could be that Hong Kong has had a long exposure to Western culture and may be more influenced by non-violent parenting in Western societies.⁷¹ It could also be attributed to the advanced child protection system in Hong Kong. A series of child protection measures have been taken in Hong Kong since the late 1970s, including the setting up of the Child Protection Services Unit within the Social Welfare Department in 1983, implementation and revisions of the procedures for handling child abuse cases since 1983, and the opening of the Central Register for Child Abuse and

Neglect in 1989, etc.²²⁰ This may reflect a social attitude and effort to eradicate child abuse in Hong Kong, which might promote a lower prevalence.

3.5.3 Cross-cultural Comparison

There have been few cross-cultural studies on comparing the prevalence of child maltreatment. Kim *et al.*'s (2000) study, which collected data from 483 children from mainland China and 489 children from Korea, showed that the children experienced similar levels of physical maltreatment (China, 70.6%; Korea, 68.9%), but Chinese children experienced more minor forms (China, 42.2%; Korea, 9.4%) and less severe forms (China, 22.6%; Korea, 51.3%).¹⁶³ Hester *et al.* (2009) investigated university students in China and the UK and indicated higher levels of physical maltreatment (only two questions to measure minor forms) in China (hitting: China, 50%-60%; the UK, 43%; hitting with an implement: China, 36%-37%; the UK, 4%-7%).¹⁴⁷

3.6 Contributing Factors of Child Maltreatment

This section summarises contributing factors of child maltreatment at different levels guided by the ecological model (ontogenic development, microsystem, exosystem, macrosystem). The Chinese cultural context (macrosystem) is not included below, as it has already been introduced in **Chapter 1**.

There were 59 studies on contributing factors of physical/emotional maltreatment. However, most studies were cross-sectional; the sample in most studies were not representative of a defined group or population, and measurement of important risk factors in many studies was not accurate or objective. Despite the use of validated questions for the measurement of outcomes (physical or emotional maltreatment), the literature only relied on data from either parents or children, and did not seek validation from other informants. This may introduce biases in estimates of key variables and undermine the accuracy of research findings. More importantly, due to the properties of cross-sectional studies, the relationship between each risk factor and maltreatment could only be correlative. The ability to establish the causal relationship is restricted. Longitudinal studies are clearly more suitable to

answer research questions of this type. However, only three longitudinal studies (four published papers) in mainland China were identified in this review: one on cognitive and behavioural risk factors, one on parents' positive evaluations of harsh discipline, and one on internalising/externalising problem behaviours.

^{100,116,120,126} There were several methodological concerns with the longitudinal studies. Firstly, despite all studies being prospective, participants were only followed for a short period of time. Secondly, the sample was not representative of a defined population, which may subject research findings to selection bias. Thirdly, important risk factors and outcomes (e.g., physical or emotional maltreatment) were measured using validated tools in these studies. However, they only collected data from either parents or children, which may introduce systematic biases in estimates of associations among variables.

3.6.1 Ontogenic Development

As elsewhere,^{23,221} studies in China ($n=6$) have shown that more mothers than fathers use physical and emotional maltreatment against their children in China.^{99,101,107,114,133,156} It may be affected by the fact that mothers are typically primary caregivers of the children. Two studies (Tang, 1998; Tang, 2006) conducted in Hong Kong indicated that young parents were more likely to report physical maltreatment of children.^{156,165} Only one study (Wang & Liu, 2014) was from mainland China, which reported higher rates of physical and emotional maltreatment by fathers younger than 35 compared to those aged 36-40.¹¹⁴

Two studies, from Hong Kong (Kim *et al.*, 2017) and Taiwan (Yen *et al.*, 2008), indicated that children whose parents drank habitually (or were alcohol dependent) were at an increased risk of experiencing physical maltreatment.^{85,149} However, despite the large sample size and the use of the standardised questions for alcohol dependence/abuse in the Hong Kong study, measurement of physical maltreatment was not precise, as they did not use validated questionnaires and only included two questions. The Taiwan study used validated questions to measure child maltreatment, but the sample only represented children living in the rural areas of Taiwan, and the measurement of parental drinking was not accurate enough, as it was only determined by the frequency of drinking per week. Two studies (Shen *et al.*, 2015; Lin *et al.*, 2011)

from mainland China also supported parental drinking being a risk factor.^{106,134} Both of them used CTQ for the measurement of child maltreatment. However, the definition of 'drinking' is not clearly given. In addition, Shen *et al.* (2015) only included 736 students from Henan province, China, which may subject the research finding to selection bias.

Six studies from mainland China were identified with two related to intergenerational continuity of emotional maltreatment and four related to physical maltreatment.^{95,101,112,113,133,170} For instance, one study (Ma *et al.*, 2011) which conducted a questionnaire survey among parents of 1,394 primary school students, found that parental experience of emotional maltreatment in childhood was positively associated with physical maltreatment of children (OR=1.28).¹²⁷ However, among the six studies, only two used validated questionnaires to measure both parental history of childhood maltreatment and maltreatment of children, although these two studies were primarily focused on minor forms of physical punishment.^{112,113} In addition, all studies were cross-sectional and relied on parents, a single informant, for information on their own behaviours and behaviour of their parents. Prospective longitudinal data from multiple informants across a considerable length of time are required in order to achieve a complete examination of the intergenerational continuity of maltreatment.

Two studies on the role of parents' negative emotional states were found from mainland China and provided mixed evidence: Xing *et al.* (2017) collected data from 328 Chinese father-mother dyads (mean age of 34) in Beijing, finding that maternal negative emotional states, including depression, anxiety and stress, were related to physical and emotional maltreatment of children, while Lo *et al.* (2017), who collected data from 392 young mothers (mean age of 22) in Hong Kong, failed to find its significant association with physical maltreatment.^{87,89} Both studies used validated questionnaires to measure child maltreatment and maternal negative emotional states. Firstly, an important explanation for the inconsistency of the results between the two studies could be related to the severity of physical maltreatment measured. For instance, Xing *et al.* (2017) only included minor physical maltreatment, while Lo *et al.* (2017) only examined

moderate physical maltreatment. Secondly, it could be attributed to the sampling strategy. Xing *et al.* (2017) recruited parents from public preschools, but in Lo *et al.*'s (2017) study, young mothers were recruited from a local social service programme. The pattern of risk factors for child maltreatment among teenage and young mothers might be different. Thirdly, the sample size in both studies was small, which raises the issue of the representativeness of the population studied and may subject the findings to selection bias. There were also other possible explanations, such as cross-sectional study design, research location (e.g., mainland China or Hong Kong), validity of parent reports and confounding factors examined.

Consistent with international studies,²²²⁻²²⁶ parents' attitudes towards harsh discipline were associated with maltreatment of children. For instance, Chen *et al.* (2016) and Lansford *et al.* (2014; 2015) found the following risk factors for child maltreatment: parents' perception of the 'normalisation' of physical punishment within the community, supportive or tolerant attitudes towards physical punishment, positive evaluations of harsh discipline, and low awareness of harm caused by maltreatment.^{58,101,116} However, the samples were not nationally representative so cautions regarding not over-generalising the findings to the entire population are warranted. In addition, Chen *et al.*'s (2016) study only focused on emotional maltreatment, while Lansford *et al.* (2014; 2015) merely included minor forms of physical punishment.

Parents' recognition of child maltreatment was associated with the maltreatment of children. For instance, Ma *et al.*'s (2011) study indicated that parents who did not consider physical punishment as maltreatment displayed a higher odds ratio of reporting physical maltreatment of children (OR=1.34-2.02).¹²⁷ Zhang *et al.* (2016) found parents that scored significantly higher in recognising emotional maltreatment were less likely to report emotional maltreatment of their children.⁹⁵ In the two studies, recognition of child maltreatment was measured using a scale which consisted of several items of physical/emotional maltreatment. Parents were asked whether they believed the behaviour

described in this scale was an abusive behaviour. However, information on the validity and the reliability of the scale was not provided.

3.6.2 Microsystem

The microsystem represents the context of a child's immediate family and household (e.g., socio-economic status, family structure, family size, spousal relationship).

Family-related factors. In line with Western findings,⁶ most studies in China ($n=14$) have indicated that a household's low socio-economic status (SES), increased the risk of physical and emotional maltreatment of children, such as low family income, low parental education, parental unemployment, or temporary housing.^{86,89,101,102,109,114,127,133,142-145,156,164} For instance, Gao *et al.* (2017), who collected data from 1,163 children in Shenzhen, Southern China, revealed family economic adversity was a significant risk factor for child maltreatment (OR=1.23). The explanation given was that since poverty may result in high stress and low social support, this may push parents to use violent parenting strategies with their children.⁸⁶ Studies from mainland China ($n=5$) indicated that being the only child in the family was a protective factor for physical and emotional maltreatment.^{77,127,134,157,160} For instance, Lin *et al.*'s (2011) study, which investigated 7,475 children in Guangzhou, found that children with siblings were more likely to report physical and emotional maltreatment (OR=1.19-1.41).¹³⁴ However, studies from Hong Kong showed that being the only child was a risk factor.^{109,123,165-167}

A few studies were identified on the role of parental marital satisfaction/status with six studies from mainland China. For instance, two studies (Lin *et al.*, 2011; Tao *et al.*, 2006) showed that children from single-parent or remarried families were at higher risk of physical and emotional maltreatment.^{134,157} Four studies indicated that parents who are dissatisfied with their marriage were more likely to physically maltreat their children.^{107,112,150,169} This is because parents who are dissatisfied with their marriage or abused by their spouse may be in a state of

negative emotions which can diminish their parenting capacity.²²⁷ They may transfer their dissatisfaction and anger towards their spouse to their children.

One study from mainland China (Qin *et al.*, 2008) indicated that a happy family atmosphere was a protective factor for emotional maltreatment (OR=0.45).¹⁵⁰ Yen *et al.*'s (2008) study, which surveyed 1,684 children from middle schools in Taiwan, indicated that children who perceived a poorly functioning family (OR=1.68) and frequent family conflicts (OR=2.60) were more likely to experience physical maltreatment.¹⁴⁸

As elsewhere,⁶ five studies conducted in Hong Kong and Taiwan revealed a strong association between parental intimate partner violence (IPV) and child maltreatment.^{51,102,109,132,146} In addition, a study conducted in Hong Kong indicated that IPV against women during pregnancy predicted subsequent maltreatment of children aged under four.¹²³ However, research in this area is very limited in mainland China, except for Li *et al.* (2011).¹²⁸

Child Characteristics. A number of studies ($n=11$) have shown that boys have a higher risk of experiencing physical maltreatment than girls.

^{76,99,105,114,115,125,133,141,143,156,169} This may be for several reasons. Firstly, it is observed that boys are more likely than girls to exhibit problem behaviours.^{228,229} Secondly, Chinese parents have higher expectations of boys than girls. In Chinese traditional culture, boys are expected to continue their family names in their adulthood and become primary providers for their own families and aged parents.²³⁰ Also society may more readily condone the use of physical discipline for boys, because of assumptions that they are physically stronger than girls. Evidence of child-sex difference for emotional maltreatment is mixed ($n=10$): two studies (Lin *et al.*, 2011; Wan *et al.*, 2015) showed that girls significantly reported more emotional maltreatment.^{105,134} There may be two explanations. Firstly, boys are more valued by parents in Chinese families.²³¹ Secondly, girls are more vulnerable to parental criticism and hostility, which could lead to higher reports.²³² However, three studies (Chen *et al.*, 2016; Wang & Liu, 2014; Wang & Chen, 2012) reported contrasting

findings,^{101,114,125} and five studies failed to find gender difference.^{95,99,106,108,143} Differences among studies might be contributed to a few factors, such as sample surveyed, children's age, time period, and statistical methods used for analysis. For instance, Lin *et al.* (2011) and Wan *et al.* (2015) collected information from school children (mean age of 13-15 years) and asked about their lifetime experience, while Chen *et al.* (2016) surveyed parents of primary school children (mean age of 9 years) and asked about emotional maltreatment of their children during the last three months. In addition, Wang & Liu (2014) and Wang & Chen (2012) showed that boys had significantly greater exposure to emotional maltreatment, but they did not adjust for other covariates in the analysis. Other possible explanations could be related to sample size, research location, measurement, or cross-sectional study design. More studies are needed to clarify the child-sex difference for emotional maltreatment.

Physical and emotional maltreatment was found to be more common in younger children ($n=7$).^{77,95,109,114,143,144,156} For instance, Leung *et al.* (2008) collected data from 6,592 students in Guangzhou and showed that children who aged 12-14 years were about 1.52 times more likely than those aged 15-16 years to experience physical maltreatment.¹⁴⁴ Zhang *et al.* (2016) found that the prevalence rate of emotional maltreatment among children aged 8 or below was higher than that among children aged 11 or older.⁹⁵ Two studies (Tang, 2006; Wang & Liu, 2014) investigated age trends of child maltreatment with one from mainland China.^{114,156} Wang & Liu (2014), collected data from a sample of 2,518 father-mother dyads of children aged 3-15 years in Shandong Province in Eastern China, finding that the prevalence of minor physical maltreatment ranged from 60%-80% for ages 4-7, peaking at age 4 and 7, and decreasing significantly from age 7 to 15 (prevalence ranged from 40%-60%). Parents used more physical discipline with children aged under 7, probably because children of this age group are perceived to have cognitive immaturity and physical discipline is regarded as necessary to teach what is wrong and what is dangerous.²³³⁻²³⁵ But for moderate physical maltreatment, Wang & Liu (2014) showed an initial rise from age 3 to 7, peaking at age 7, then decreased from age 7 to 12 and subsequently remained stable to age 15.¹¹⁴ Parents used more severe forms with children aged 7 when they began formal schooling, possibly

because they tend to use this as a way to motivate their children to achieve high academic and social goals. Wang & Liu (2014) also reported a slightly decreasing trend of emotional maltreatment from age 3 to 15, but it is worth noting that the rates of emotional maltreatment at different stages were consistently high (over 70%). This indicates that emotional maltreatment has been used as a near universal disciplinary tactic among Chinese parents.

Evidence is mixed relating to academic performance: three studies indicated that poor academic performance or academic pressure was a risk factor for physical maltreatment of children in the Chinese context;^{86,158,169} two studies suggested that whether children performed well in schools was not associated with the risk of physical/emotional maltreatment.^{95,127} Possible explanations for the inconsistency might be sources of information and measures of children's academic performance. For instance, Gao *et al.*'s (2017) study which reported significant results, was measured by two items. Children were asked to rate their overall academic performance and the frequency of being concerned by failing an examination during the last semester. However, in the two studies that did not show significant results, parents were asked to evaluate their children's school performance.^{95,127} Parents and children may have different perceptions of children's academic performance. Data from multiple informants are required in the future research to clarify the role of academic performance in the occurrence of child maltreatment. There were also other possible explanations, such as cross-sectional study design, sampling strategy and confounding factors examined.

Several studies conducted in China have shown that child problem behaviours (especially externalising behaviours) reported by parents are a significant risk factor for physical ($n=6$) and emotional ($n=3$) maltreatment of children.^{58,87,89,94,95,100,127,156} For instance, Zhang *et al.* (2016) found that child misbehaviour reported by parents was a significant risk factor for emotional maltreatment (OR=1.78).⁹⁵ A longitudinal study (Cui & Liu, 2016) collected data from 265 Chinese children and their parents in Jintan City, South-eastern China, and showed that child externalising behaviours rated by mothers

increased the risk of moderate/severe physical maltreatment (OR=1.38-1.47).¹⁰⁰ This is in line with a global meta-analysis of 155 studies on risk factors for child maltreatment.⁴⁹ Interestingly, Cui & Liu (2016) found that child internalising behaviour rated by mothers was a protective factor for maternal physical maltreatment (OR=0.77).¹⁰⁰ This is inconsistent with Western findings.^{49,236} A possible explanation is that Chinese parents tend not to use physical discipline when they perceive that their children are introverted, because the characteristics of internalising problems may align with desired characteristics in the Chinese culture, such as being quiet and sensitive.¹⁰⁰ The results above are based on parents' reports of their children's behaviours. Behavioural problems self-reported by children themselves were also associated with increased risk of maltreatment.^{86,120,126} For instance, a longitudinal study (Xing & Wang, 2011; Xing *et al.*, 2013), which collected information from 454 elementary school-age children in an eastern Chinese city, indicated that child internalising and externalising problem behaviours predicted minor/moderate physical maltreatment for boys.^{120,126}

Two longitudinal studies (three published papers) were identified on the role of child behaviours in the occurrence of child maltreatment in China.^{100,120,126} Despite the prospective study design and the validated tools to measure exposures and outcomes, the findings should be interpreted cautiously due to the following limitations. Firstly, the cohorts were not followed for a sufficient length of time (e.g., six months or two years). Secondly, the sample size was small in both studies. In the study of Cui & Liu (2016), only a relatively small proportion of the original cohort children participated in the survey, and there were slightly more girls and less children from rural areas; in another study (Xing & Wang, 2011; Xing *et al.*, 2013), the sample primarily consisted of 454 elementary school-aged children. It is not certain whether their findings can be generalised to younger or older children because it is possible that physical punishment is used differently with children in different developmental stages. In the future, large scale prospective longitudinal studies across a considerable length of time are required in order to confirm a causal relationship of the risk factors for child maltreatment.

Parenting or parent-child interaction. Although children may play a role in their own maltreatment, it is important to consider child maltreatment as an interactive process. Eight studies in China (five in mainland China) indicated that poor parenting skills, parenting stress, and poor relationship with parents were significantly associated with an increased risk of physical and emotional maltreatment of children.^{86,89,95,107,127,150,158,168} Four of the five studies in mainland China used validated tools to measure parenting or parent-child relationship. For instance, Zhang *et al.* (2016) and Ma *et al.* (2011) indicated parental over-reactivity and hostility were positively related to physical and emotional maltreatment of children (OR=1.21-1.45).^{95,127} In these studies, dysfunctional discipline practices in young children's parents were measured with the Parenting Scale, covering three subscales: laxness, over-reactivity, and hostility.²³⁷ Another study (Liu & Wang, 2015) of 639 Chinese father-mother dyads of preschool children in a northern Chinese city, revealed that both mothers' and fathers' parenting stress were directly associated with physical and emotional maltreatment of their children.¹⁰⁷ In this study, parents' level of stress regarding parenting was assessed with the Parenting Stress Index-Short Form, including three subscales: parental distress, parent-child dysfunctional interaction, and difficult child.²³⁸ The findings are congruent with Western studies.^{239,240} However, all studies are cross-sectional and cannot infer any causal relationship. Also, the literature solely relied on parent-reported or child-reported data and did not seek validation from other sources. This may undermine the accuracy of research findings. Future studies may adopt multiple informants, including both children and parents, to obtain more accurate data on child maltreatment. There is also a need to draw a representative large sample in future studies.

3.6.3 Exosystem

The exosystem represents the larger social systems within which the family is embedded (e.g., the world of work, the neighbourhood, formal and informal social networks, and socioeconomic status). Three studies have indicated that rural residence is a risk factor for overall child maltreatment or physical maltreatment, but there is a lack of evidence for emotional maltreatment.^{110,141,162} Four studies related to the relationships between

neighbourhood characteristics and child maltreatment.^{86,118,134,145} For instance, Gao *et al.* (2017) found that neighbourhood disorganisation, characterised with poverty, residential instability, population density, male unemployment and violent crime rate, was significantly related to emotional maltreatment of children (OR=1.02-1.04).⁸⁶ This is consistent with previous findings.²⁴¹⁻²⁴³ However, Gao *et al.* (2017) failed to find the positive association with physical maltreatment.⁸⁶ In addition, contrary to most studies, Wong *et al.* (2009) found that neighbourhoods with high socioeconomic status were linked to increased risk of physical maltreatment.¹⁴⁵

Since the late 1970s, when China launched the first of its economic reforms, many farmers have migrated from poor areas to economically developed cities to escape economic disparities and to fill the labour demands sectors in the cities. Millions of children migrate with their parents. Five studies have shown that rural-to-urban migration was related to higher levels of child maltreatment in China.^{86,143-145,157} For instance, Tao *et al.*'s (2006) study, which included a survey of 5,141 students (mean age: 15 years) in Anhui Province, Eastern China, found that compared with children with parents that did not migrate, children with fathers working away for a long time were at a higher risk of physical and emotional maltreatment by their caregivers (OR=1.24-1.28).¹⁵⁷ Gao *et al.* (2017) found that migrant children were 1.49 and 1.43 times more likely to be physically and emotionally maltreated than their local counterparts.⁸⁶

3.7 Consequences of Child Maltreatment

This section summarises the studies on the effects of physical/emotional maltreatment on health and behavioural problems in childhood and adulthood. Findings are grouped into five main categories: (1) mental health outcomes, including internalising and externalising behaviours, mental disorders, personality, suicidal ideation/attempts, and non-suicidal self-injuries; (2) health risk behaviours; (3) aggression/aggressive tendencies; (4) IPV victimisation; (5) physical health outcomes.

There were 76 studies on consequences of child maltreatment. Most studies were cross-sectional, which made it impossible to establish the casual relationship between child maltreatment and its negative effects. Only five case-control studies and seven cohort studies (eight papers) were identified in mainland China. The five case-control studies showed short- and long-term negative effects of physical/emotional maltreatment on mental health and health risky behaviours.^{154,175,180,182,200} However, the research findings should be interpreted with caution due to several limitations. Firstly, despite the cases in all studies being clearly defined, the samples were not representative of the defined population. Secondly, data on child maltreatment were retrospectively reported by adults in four studies, so there might be potential for recall bias, which could lead to both over or under-reporting. Thirdly, cases and controls were not demographically matched in most studies.

The seven cohort studies showed short- and long-term negative effects of physical/emotional maltreatment on child externalising/internalising behavioural problems in children (n=7) and maternal depression risk in the perinatal period (n=1).^{91,93,94,120,126,172,194,244} All studies were prospective and used validated tools to measure maltreatment exposures and negative outcomes. However, there were several methodological concerns. Firstly, the sample was not representative of a defined population in all studies. Secondly, participants were only followed up for a short period of time. Thirdly, there was significant participant attrition during follow-up in two studies.^{93,244} Fourthly, despite exposures and outcomes being measured using validated questionnaires in these studies, self-reports of past experience may lead to recall bias. In addition, all studies relied on a single informant (either parents or children) for data on maltreatment of children and children's emotional/behavioural problems.

3.7.1 Mental Health Outcomes

Consistent evidence in China has indicated the negative effects of child maltreatment on mental health in childhood and adulthood.^{91,105,115,120,126,143,181}

Internalising and externalising behaviours. In line with Western findings,^{6,17,62,87,245} many studies ($n=26$) in China have showed that child maltreatment is positively associated with behavioural problems in children and young adults, including internalising (e.g., anxiety, depression) and externalising (e.g., aggression, delinquency) behaviours.^{94,173,174} Seven longitudinal studies were found on this issue. However, the research findings should be interpreted with caution due to several methodological concerns. Firstly, the sample was not representative of a defined population in all studies. For instance, Zhu *et al.*'s (2017) study only selected a small sample of adolescents from two middle schools in South China and Xing *et al.* (2011) only collected information from 454 primary school children in Eastern China.^{93,126} Alampay *et al.* (2017) and Lansford *et al.* (2014) included data from nine countries, but only a sample of parents and children were recruited from one city in China.^{172,194} In fact, China is an extremely large country with a wide diversity of social environments. It is necessary to verify negative effects of child maltreatment on children's emotional and behaviour problems in a larger representative sample in the future. Secondly, in all studies, participants were only followed up for a short period of time (e.g., 6 months, 1 year or 2 years). Thirdly, there were significant participant attrition during follow-up in two studies.^{93,244} Liu *et al.* (2015) reported an attrition rate of 14%, but they did not provide information on the attrition sample. In Zhu *et al.*'s (2017) study, the attrition rate was 34%. The study reported significant differences between the attrition sample and the remaining sample on physical aggression at one-year follow-up, which warrant caution in interpreting the results. Students who did not participate may be more likely to report higher physical aggression at one-year follow-up, so the attrition of these adolescents may lead to underestimating the relationships between physical aggression and other variables.

A few studies ($n=5$) have suggested that child maltreatment affects boys and girls differently. For instance, Xing and colleagues (2011; 2013) indicated that physical maltreatment had a stronger effect on girls for internalising and externalising behaviours.^{120,126} Nelson *et al.*'s (2006) study, which surveyed 215 parents of preschool-age children, suggested that emotional maltreatment was primarily associated with aggression in girls. However, inconsistent with Xing *et*

al. (2011), they found that physical maltreatment was related to aggression in boys.²¹²

Only Wang *et al.*'s (2016) study analysed the individual effects of different types of child maltreatment.¹⁷⁹ By collecting data from 1,971 father-mother dyads of children aged 7-12 years in Northern China, the study found that emotional maltreatment had the strongest association with children's anxiety. It also indicated that minor physical maltreatment perpetrated by mothers was positively associated with child anxiety, whereas more severe forms had no significant effects.¹⁷⁹ This is in contrast with Western findings which showed detrimental effects from severe physical maltreatment and uncertain effects from minor or moderate forms.^{23,246}

Three studies conducted in Hong Kong and Taiwan suggested that the co-occurrence of witnessing domestic violence and physical maltreatment (or dual violence) had a greater negative effect on self-esteem and behaviours in children and young adults.^{131,146,209} This is in line with Western findings.^{50,52-54,247} For instance, Shen's study (2009a, 2009b), which collected data from 1,924 university students in Taiwan, reported that the prevalence of dual violence was 11.3%.^{146,209} The study indicated that exposure to both IPV and physical maltreatment during childhood had a long-term and detrimental impact on adult self-esteem and behaviour problems. Importantly, the effects were greater among participants experiencing dual violence than those experiencing only one type or none at all. However, there is a paucity of research on this issue in mainland China.

A few studies ($n=7$) have examined moderation factors for the associations between child maltreatment and behavioural problems, such as parental warmth and hostility, children's perceptions of 'normalisation', severity and justness in the use of minor physical maltreatment, children's altruism and forgiveness.^{172-174,194,207,208,214} Evidence is mixed for parental warmth. It seems that parental warmth might moderate the negative effects of minor physical maltreatment on child internalising problems but not externalising problems. For

instance, Lansford *et al.* (2014) collected data from eight different countries, including China, and found that maternal warmth moderated the negative effects on children's anxiety.¹⁹⁴ In this study, parental warmth was measured by the Warmth subscale (e.g., I say nice things about my child) of the Parental Acceptance and Rejection Questionnaire.²⁴⁸ However, Xing *et al.*'s (2017) study, which used the same questionnaire and examined the moderation effects of both parental warmth and hostility, indicated that parental warmth did not influence the link between minor physical maltreatment and externalising problem behaviours in children, while parental hostility strengthened this link.¹⁷³ In addition, Lansford *et al.* (2005, 2010) and Gershoff *et al.* (2010) showed that physical and emotional maltreatment were less strongly associated with adverse child outcomes in conditions of greater perceived 'normalisation' (e.g., what forms of discipline children and parents believe other parents in their cultural group use).^{207,208,214} Alampay *et al.* (2017) found that neither severity nor justness in the use of minor physical maltreatment reported by parents would moderate the associations between the frequency of its use and child externalising and internalising behaviours.¹⁷² Generally, these findings indicated that minor physical maltreatment is harmful to children regardless of parental warmth, perceived 'normalisation', or how it is implemented.

Moreover, Kwok *et al.* (2017) indicated that preschool children's altruism and forgiveness could protect them against harm caused by emotional maltreatment from parents.¹⁷⁴

Mental Disorders. Six studies (five from mainland China) provided evidence on the positive associations between physical/emotional maltreatment during childhood and mental disorders in adulthood (e.g., major depressive disorder, panic disorder, personality disorder, post-traumatic stress disorder, dissociative disorder, or oppositional defiant disorder). Three case-control studies were identified on this issue.^{154,175,200} However, Zou *et al.* (2016) only included a small sample of patients from one hospital in one city. Tao *et al.*'s (2011) study did recruit a large sample. However, the key issue with their study is that physical maltreatment was measured by one question rather than using

validated tools, because this was not the primary purpose of the research.²⁰⁰ More importantly, cases and controls were not always demographically matched in these studies. For instance, in Xiao *et al.*'s (2006) study, there were significant differences among the inpatients, outpatients, and factory workers in terms of age, percentage of women, the number of children, and marriage status. This mismatch may raise the possibility for other interpretations regarding their research findings. They cannot rule out that the differences in maltreatment may be due to the effects of demographic variables. Future studies need to take greater care in more precisely matching demographic variables across groups.

Personality. Several studies ($n=4$, all from mainland China) reported associations between childhood maltreatment and personality in late adolescence and early adulthood.^{115,136,199,204} In these studies, personality was measured by the Eysenck Personality Questionnaire (EPQ). Li *et al.* (2014) indicated that children (mean age: 17 years) subjected to physical and emotional maltreatment had significantly higher scores on neuroticism (EPQ-N) and psychoticism (EPQ-P), compared with students without such experience.¹¹⁵

Suicidal ideation/attempts. Five studies in China (four from mainland China) were related to this issue: five studies on physical maltreatment and only two studies on emotional maltreatment.^{92,143,187,196,206} Four out of five studies showed that physically maltreated children were at an increased risk of suicide ideation and attempts.^{143,187,196,206} For instance, Wong *et al.* (2009) carried out a questionnaire survey among 6,593 children aged 12-16 in Guangzhou, Southern China, and 36.6% of them reported having seriously considered suicide or having planned to commit suicide. Children with experience of physical maltreatment were twice as likely to report suicide ideation than those without such experience.¹⁴³

Evidence is limited and mixed for emotional maltreatment. Chen *et al.* (2017) collected data from 507 university students in Wuhan City, Hubei Province, and found that 6.8% of them reported suicidal behaviours during the last 12 months.

This study showed that emotional maltreatment was positively associated with a higher risk of suicidal behaviours for both males (OR=12.47) and females (OR=5.16).⁹² However, Kwok *et al.*'s (2013) study, which surveyed 560 children aged 12-17 in Shanghai, failed to find a significant relationship.¹⁹⁶ There might be several explanations for the inconsistency. Firstly, different tools were used to measure suicidal ideation/attempts. Chen *et al.*'s (2017) study only used a general question, while Kwok *et al.* (2013) used 13 items that were drawn from the Suicidal Ideation Subscale of the Suicidal Risk Scale. Secondly, different tools and time periods were used to measure emotional maltreatment. Chen *et al.* (2017) measured experiences under age of 18 years by using CTQ, while Kwok *et al.* (2013) used CTSPC and asked experiences in the past year. Other factors might also contribute to the difference between the two studies, such as sample surveyed (young people or children), small sample size, validity of reports and cross-sectional study design.

Non-suicidal self-injury. A few studies ($n=5$) reported a positive association of physical/emotional maltreatment with non-suicidal self-injury (NSSI) in children.^{75,92,105,159,189} But longitudinal studies are needed to enhance causal inference. Four studies were conducted in mainland China. For instance, a large-scale study conducted by Wan *et al.* (2015), which recruited 14,665 children from middle schools in four cities, found that nearly one in four students reported that they had engaged in NSSI in the past 12 months (e.g., hitting, pulling hair, banging head, pinching, biting, cutting, overdosing, or ingesting non-ingestible substance).¹⁰⁵ Physical and emotional maltreatment, occurring at any time within the first 16 years of life, were significantly associated with NSSI (PM: OR=3.21-3.35; EM: OR=3.00-3.39). The risk increased in situations of continuous exposure (PM: OR=4.13-4.80; EM: OR=3.65-4.61). Students maltreated by parents or non-parents were at higher risk of engaging in NSSI than those without any experience of maltreatment (PM: OR=2.75-2.92; EM: OR=2.69-3.22), and the risk was greater in students maltreated by both (PM: OR=3.70-4.26; EM: OR=3.62-4.00).¹⁰⁵

3.7.2 Health Risk Behaviours

Drinking problems. Ten studies (six from mainland China) examined the relationship between child maltreatment and drinking problems with most showing adult maladaptive drinking to be associated with physical and emotional maltreatment during childhood.^{85,92,140,149,153,158,164,180,202,203} For instance, in Cheng *et al.*'s (2011) study, 1,628 adult household residents living in two metropolitan cities (Beijing and Shanghai) were surveyed. The study found robust associations linking physical maltreatment in childhood with adult drinking outcomes (OR=2.0-7.7), such as precocious drinking, socially maladaptive drinking, heavier drinking, or alcohol dependence.²⁰²

Substance use. Two studies conducted in Hong Kong indicated that physical maltreatment had strong associations with drug-related behaviours.^{158,159} Using data collected from 95,788 middle school students in Hong Kong, Lau *et al.* (2005) found that children who had experienced minor physical maltreatment were more likely to be current users of tobacco (OR=1.31), psychoactive substances (OR=1.60), or heroin (OR=1.90).¹⁵⁸ Those who had been beaten to injury by a family member without provocation within the past 6 months also were more likely to be current users of tobacco (OR=1.65), psychoactive substances (OR=2.39), and heroin (OR=3.07).¹⁵⁸ Additionally, children who experienced physical maltreatment were more likely to be acquainted with habitual substance users, have better access to psychoactive substances, and believe that psychoactive substances are not harmful or addictive.¹⁵⁸ However, there is a lack of evidence for emotional maltreatment and no studies on this issue have been conducted in mainland China.

Internet addiction. Only two studies on this issue were identified with one from mainland China.^{92,98} Chen *et al.* (2017) found that 36.9% of students surveyed reported internet addiction, and the experience of physical maltreatment was positively associated with internet addiction in both males and females (OR=2.50), while emotional maltreatment only affected males (OR=2.38) but not females.⁹² Hsieh *et al.*'s (2016) study conducted among 6,233 children in Taiwan showed that being male and experiencing physical maltreatment

perpetrated by fathers (but not mothers) was associated with an increased risk of developing internet addiction among children.⁹⁸

Risky sexual behaviour. Only one study (Chen *et al.*, 2017) from mainland China was identified, which showed that physical and emotional maltreatment were not related to risky sexual behaviour in university students.⁹²

3.7.3 Aggression/Aggressive tendencies

Four studies published in Chinese journals were identified on the effects of physical and emotional maltreatment in childhood on aggressive tendencies in late adolescence and early adulthood.^{103,104,191,192} The Buss and Perry Aggression Questionnaire was used to measure aggression in school students (mean age: 16 years) and undergraduates, which covered four aspects: anger, hostility, physical aggression, and verbal aggression.^{103,104,191,192} These studies showed that the experience of physical and emotional maltreatment in childhood predicted aggression in late adolescence and early adulthood.

3.7.4 Intimate Partner Violence

Only one study on this issue was identified in this review.¹⁷⁷ Yan *et al.* (2016) examined the associations between life adversities and IPV using a representative sample of 1,239 men and women aged between 18 and 97 in Hong Kong. The study indicated that IPV is common with 32.8% of the participants reporting preceding-year verbal aggression, and 4.5% reporting physical maltreatment. It also showed that childhood physical maltreatment by parents is associated with future long-term risk of IPV victimisation.¹⁷⁷ However, there is a paucity of evidence on the impacts of childhood maltreatment on IPV perpetration. Importantly, there is a paucity of research in this area in mainland China.

3.7.5 Physical Health Outcomes

Five studies (three from mainland China) examined physical health consequences of child maltreatment.^{139,143,164,185,190} For instance, Liu *et al.* (2015) collected data from 1,744 children aged 8-12 in Anhui Province and found that the experience of physical maltreatment was positively related to early puberty timing in girls (OR=2.45).¹⁸⁵ Wong *et al.* (2009) showed that physically maltreated children were more likely to report physical problems, including stomach pain, poor appetite, shortness of breath, chest pain, dizziness, and irregular menstruation (OR=1.40-1.90).¹⁴³ Two studies (Li *et al.*, 2015; Lau *et al.*, 1999) were on self-rated health, which showed that children who experienced physical maltreatment rated their health as poorer than those without such experience.^{164,190}

3.8 Overview and Research Gaps in the Literature

The review showed wide ranges in prevalence rates of physical/emotional maltreatment, which are mainly explained by the variation in definitions, research tools and methodologies. There is increasing research from China to investigate risk factors of child maltreatment and to support negative effects of child maltreatment with the majority focusing on mental health consequences. However, most research evidence is generally weak due to study design, sampling strategy, sample representativeness, or measurement of exposures/outcomes.

A few research gaps were identified in the current literature. Firstly, the review highlights a growing body of research on the prevalence of child maltreatment, but almost all available research is based on the report of a single informant. It is impossible to discern whose reports are the most accurate. This may also introduce systematic biases in estimating risk factors and negative effects of child maltreatment. Future research would benefit from the use of multiple informants for information on maltreatment of children. Secondly, the literature on risk factors of child maltreatment focused on child and parent individual characteristics and family-related characteristics. There is limited evidence on community-related factors, and even less on society level factors. More research is clearly needed to understand child maltreatment in the Chinese

social context, and there is a need to move beyond the mere identification of individual variables to an exploration of the interactions between variables both within and between different levels, as guided by the ecological model of child maltreatment. Thirdly, most studies on negative effects of child maltreatment do not differentiate the severity of physical maltreatment. More importantly, there has been less exploration of the effects of emotional maltreatment, and the interactions between different types of maltreatment exposure. Lastly, it is also worth noting that most studies of risk factors and consequences of child maltreatment are cross-sectional, which cannot establish the causal relationship. There were some longitudinal studies, however, the research findings should be interpreted cautiously due to methodological concerns, such as sample representativeness, short follow-up periods, significant participant attrition during follow-up or lack of information on attrition. Large scale prospective longitudinal studies including multiple informants across a considerable length of time are required in the future.

3.9 Contributions of the Literature Review to This Research

This section presents how the literature review contributed to various aspects of my research. Firstly, it informed the selection of study populations of this research. The literature review showed that almost all of the available research on child maltreatment in China is based on the report of a single informant (e.g., parents' report, children's self-report, or adults/young adults' self-report). It is impossible to discern whose reports are the most accurate, as prevalence rates were generally inconsistent among studies. Therefore, three different populations were investigated in this research, including young adults, children and parents, in order to gain accurate figures for maltreatment of children and to compare differences of reports among three different sources.

Secondly, this review contributed to the development of research questions in relation to the role of parents in the occurrence of child maltreatment and the individual effects of different types of child maltreatment. As indicated by the literature review on risk factors, no studies have examined the relationship between parents' tendency towards aggression and child maltreatment in

China. Only a few studies were conducted to investigate intergenerational continuity of child maltreatment and most have primarily focused on minor forms of physical punishment.^{95,113} Therefore, this research aimed to examine the role of parental aggressive tendencies and parental childhood maltreatment in the occurrence of different types of child maltreatment. The literature review on consequences of child maltreatment indicated that most studies on negative effects of child maltreatment do not differentiate the severity of physical maltreatment; there has been less exploration of emotional maltreatment, and independent effects of different types of maltreatment. Therefore, this research also aimed to explore whether different types of maltreatment were independently associated with child emotional and behavioural problems.

Thirdly, the literature review informed the mixed-method design of this research. There has been limited research in mainland China to explore experiences and perceptions of various types of child maltreatment among young adults, parents and children. Only two qualitative studies were identified in the literature review: one only interviewed nine child victims of physical maltreatment and the other only sampled children diagnosed with attention deficit hyperactivity disorder.^{24,78} It would be beneficial to undertake more qualitative research in the Chinese context in order to have an in-depth understanding of the nature and complexity of child maltreatment, for instance, how children and young adults perceive their personal experience of childhood maltreatment.

Finally, the literature review informed the measurement and the classification of different types of child maltreatment. Items of child maltreatment drew extensively on existing commonly-used validated tools in both China and many other countries: CTSPC and the ISPCAN Child Abuse Screening Tools (ICAST). CTSPC was developed as an extension of the original CTS to measure parents' disciplinary methods in conflict situations, including emotional and physical maltreatment of children, as well as non-violent methods of discipline.⁷⁴ A Chinese version of CTSPC was available and showed good internal consistency.²⁴⁹ ICAST includes three different versions: Retrospective Version (ICAST-R), Parents' Version (ICAST-P), and Children's Version

(ICAST-C).²⁵⁰⁻²⁵² The Chinese version of ICAST-C was available and the items of ICAST-P were consistent with ICAST-C.²⁵³ ICAST-R was developed by experts from 28 countries as a basic instrument to collect data on the extent of child abuse.²⁵² It has not been used previously in mainland China, but it can be utilised in a broad range of cultures.²⁵² In addition, severity was chosen as a means to classify various measurements of physical maltreatment. Because the physical maltreatment items differ tremendously in their severity, subscales indicating minor, moderate and severe maltreatment were used according to those defined in CTSPC. Detailed information on items of child maltreatment can be seen in **Chapters 5-7**.

CHAPTER 4 METHODS

This chapter describes the study design and rationales for using mixed methods. It clarifies links between the research questions and various dimensions of this research. It then provides a detailed explanation of the study setting and study populations. Ethical considerations of this research are given at the end of the chapter, including critical reflections on the ethical issues that emerged during the research process.

4.1 Study Design: Mixed-method Research

4.1.1 What Is Mixed-method Research?

The most widely accepted definition of mixed-method research is:

“A method [which] focuses on collecting, analysing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone.”²⁵⁴

The main purposes and justifications for mixed methods research are summarised below (**Table 4-1**):

Table 4-1 Purposes and justifications for mixed methods²⁵⁵⁻²⁵⁸

Purpose	Details and benefits
Expansion	Using different methods for different components of a research question. Mixed methods allow breadth of understanding.
Complementarity	Using results from one method to elaborate or clarify results from another method. Mixed methods allow depth of insight into a topic or problem.
Triangulation	Looking for convergence or corroboration by using different methods. This permits more confidence in results.
Development	Using results from one method to develop or inform the other.
Initiation	Using different methods to look for contradictions or new perspectives on results or questions.

Mixed method designs can be classified into four types^{254,259}: convergent, embedded, exploratory, and explanatory, depending on the weighting of the qualitative and quantitative approaches in any stage of the research process (See **Table 4-2**).

Table 4-2 Classification of mixed-method designs^{254,259}

Classification	Description
Convergent	Quantitative and qualitative methods used concurrently.
Explanatory sequential	Quantitative methods followed by qualitative methods.
Exploratory sequential	Qualitative methods followed by quantitative methods.
Embedded	A small qualitative component embedded (before, during or after) in a larger quantitative study, or vice versa.

4.1.2 Mixed-method Design in This Research

In my PhD study, I aimed to examine different aspects of child maltreatment in China, including perceptions, risk factors, experiences and negative effects. In order to better answer the specific research questions from a pragmatic view, I used a mixed-method design (**Table 4-3**).

The prevalence, risk factors, and negative effects of child maltreatment was best undertaken using quantitative methods in order to quantify the effect size. Qualitative approaches can offer an in-depth understanding of the nature and complexity of child maltreatment, which cannot be achieved through quantitative research alone, such as how children and young adults perceived their personal experience of childhood maltreatment.

The primary aim of using a mixed-method design in this way was to extend the breadth of the research topic by using different methods for different components, which has been termed ‘expansion’ by previous researchers (**Table 4-1**). A second purpose was to provide deeper insights into child maltreatment by using different methods to illuminate the same phenomenon, known as ‘complementary’ (**Table 4-1**). I expected that this would only be possible for experiences of child maltreatment either self-reported by children

and young adults or reported by parents, where the qualitative and quantitative data could inevitably overlap. A third purpose of the mixed-method design was to examine the consistency of findings to increase validity and reliability, known as ‘triangulation’ (Table 4-1).

Table 4-3 Mixed-method design in this research

Component	Details	Research questions
Quantitative study	Questionnaire survey with young adults	<ul style="list-style-type: none"> • What is the prevalence and risk factors of child maltreatment in China? • What are young adults’ perceptions of their childhood experiences of maltreatment? • Are parents with higher aggressive tendencies more likely to maltreat their children? • Are parents with childhood experience of maltreatment more likely to maltreat their children? • Is childhood experience of maltreatment associated with aggressive tendencies in adulthood, and is this in turn associated with maltreatment of children? • Are different types of maltreatment independently associated with child emotional and behavioural problems?
	Questionnaire survey with parents	
	Questionnaire survey with children	
Qualitative study	Interviews and focus group discussions with a small sample of young adults, children and parents.	<ul style="list-style-type: none"> • What are young adults’/children’s perceptions of their childhood experiences of maltreatment? • What are parents’ perceptions of their experiences of disciplining/punishing children?

The literature review of previous research on child maltreatment in China indicates that mixed-method studies in this area are very limited. The selected design of this research was a convergent design in which the qualitative and quantitative approaches were undertaken concurrently. This allowed me to maximise efficiency within a time and budget limited project. In accordance with the convergent mixed-method design, the qualitative and quantitative data were analysed separately until the interpretation phase (Chapter 9).

4.2 Study Setting: Zhejiang Province

The field work was carried-out in urban and rural areas of Zhejiang Province, in collaboration with Zhejiang University, from October 2014 to July 2015.

Zhejiang Province is one of the richest and most developed provinces in China. As of 2016, its nominal GDP ranked 4th among provincial-level administrative units. In 2017, it had a population of around 56 million. Zhejiang is divided into 11 prefecture-level divisions (**Figure 4-1**) with 90 county-level divisions (36 districts, 20 county-level cities, 33 counties, and one autonomous county).

Among the 11 divisions, Hangzhou, Jiaxing and Quzhou ranked first, sixth and ninth in GDP per capita respectively. The total population is 9.5 million in Hangzhou, 4.7 million in Jiaxing and 2.2 million in Quzhou. The three cities were purposely selected in this study in order to represent high, middle and low-level economic development.

The urban area for the study was Hangzhou, the provincial capital, one of the boom cities which has seen very rapid change over the past two decades. Hangzhou comprises 10 districts, one county-level city, and two counties. It has a large student population with many higher education institutions based in the city. Xihu District, Binjiang District and Yuhang District were included in this study. Xihu District is a major district in Hangzhou, which has a population of around 520,000. Binjiang District is a very modern, and rapidly developing, area that was mostly farmland until 10 years ago. It has a population of around 120,000. Yuhang District is a suburban district of Hangzhou with a population of around 1.17 million.

The rural areas were Xinfeng Town in Jiaxing prefecture (northern Zhejiang), and Kaihua County and Jiangshan County in Quzhou prefecture (western Zhejiang). Xinfeng Town is in the east of Jiang Xing, with a population of 49,500 people. Kaihua County is located in the westernmost portion of Zhejiang, with a population of 340,000 people. Jiangshan County is a county-level city in the prefecture. It has a a population of 467,900 people. Kaihua is the poorest among the three counties.



Figure 4-1 Location map: Zhejiang Province

4.3 Study Populations

Informed by the literature review, three populations were recruited for this research, including young adults, parents and children. Multiple sources allowed me to investigate child maltreatment from different perspectives. Participants were approached through Zhejiang University.

Quantitative research. Questionnaire surveys were carried-out with young adults, children and parents. Young adults were approached at universities in Hangzhou from January to May 2015. Hangzhou has a large student population with many higher education institutions based in the city. I was aware that university students might not be representative of young adults in China, as they only represented young people with better educational backgrounds. However, they were the most accessible and were more willing to participate in the research of this type. As this research is time- and budget-limited, students from three universities were selected. Detailed sampling strategy and measures can be seen in **Chapter 5**. Children aged 10-16 and their parents were recruited from urban schools in Binjiang District, Hangzhou and rural schools in Xinfeng Town, Jiaying from November 2014 to July 2015. Detailed sampling strategy and measures are presented in **Chapter 6**.

Qualitative research. In order to understand experiences and perceptions of child maltreatment through listening to different populations, semi-structured interviews and focus group discussions (FGD) were carried-out among young adults, parents and children. Similarly, young adults were recruited at universities in Hangzhou. Children were recruited from an urban school in Yuhang District, Hangzhou and two rural schools in Kaihua County and Jiangshan County, Quzhou prefecture. Parents with various backgrounds were recruited from Xihu District and Bingjiang District in Hangzhou, and Kaihua County and Jiangshan County in Quzhou prefecture. Both parents and professionals (including teachers, paediatricians, general doctors, and representatives of the Women's Federation) were included. The purposes of including professionals were to extensively gather information on experiences and perceptions of disciplining/punishing children from parents with various

occupational backgrounds and to further explore differences between parents and professionals in the Chinese context. Detailed sampling strategy and topic guides can be in **Chapter 8**.

4.4 Ethical Issues

Ethical approval for the study was obtained from the University College London Research Ethics Committee and Zhejiang University Ethics Board (**Appendix 4-1**).

4.4.1 Ethical Considerations

There were several ethical considerations when undertaking the research. Firstly, there may be sensitivity around reporting potentially socially unacceptable experiences, particularly those perpetrated by family members, possibly arising from intrusion into intimate behaviours.^{260,261} In order to minimise the impact of sensitivity, all participants were assured strict confidentiality and anonymity, for instance, after completion, young adults' questionnaires were placed directly into a collection box which was then sealed; parents' and children's questionnaires were put into envelopes. In addition, sensitive broad terms, such as "violence", "abuse" or "maltreatment" that might induce nervousness or defensiveness in the participants, were not used. Instead, the occurrence of specific disciplinary acts was asked.

The second important consideration was obtaining consent from participants. All participants gave consent of their participation. They were shown the information sheet and provided with clear verbal explanations of the study using colloquial language. They were told they could refuse to participate and that they could stop at any time if they wanted. Parents were informed ahead of time that a survey relating to child discipline would be carried-out for their children.

Thirdly, given the emotive nature of the topic, all participants were told they could discuss any difficult issues with a counsellor, for which, a phone number was provided. As indicated by previous researchers, participation in research

involving sensitive and emotive topics can stimulate emotional responses.²⁶² However, none of the participants availed themselves of this service.

Fourthly, this research involved children aged 10-16 as participants. Great care was taken to ensure that children understood what they were undertaking. The researchers explained to the children the reason for the study, and what it was about. Children were told that participation was not compulsory, that everything they wrote was confidential and anonymous, and that they could stop at any time for any reason. Researchers also stressed the point that it was not a test, and there was no right or wrong answer, and that they should be honest and open in their responses. For the quantitative study, children were required to complete and return their questionnaires in the classroom. Researchers were present throughout to provide help with understanding the questionnaire if necessary. It was possible that they may have lacked confidence and courage to opt out, especially when the researchers and teachers present. To avoid this issue, children were told that they could simply put blank questionnaires into envelopes if they did not want to participate in the survey. The use of envelopes ensured voluntary participation of children.

All interviews and focus group discussions with children were conducted in separate, unoccupied rooms in schools, where we would not be interrupted. An important consideration was that participants, especially children, would feel more comfortable within an environment they were familiar with. All child participants gave consent of their participation. Simple and child-friendly language was used in the Chinese versions of the information sheet and the consent form. I had an informal chat (using nonthreatening 'warm up' questions) with them before the interviews or used ice-breaking exercises before the group discussions, then moved from general questions to more sensitive ones to allow a degree of comfort and trust to be established first. All children in each focus group discussion were invited to sit in a circle-shape, and then share their hobbies in order to create a relaxed atmosphere. In addition, children in the focus groups agreed upon rules of outside disclosure: 'not to share any private information shared in the group with people outside the group'. The children

were led during these 'get-acquainted' activities. They were from different classes, but some of them already knew each other. As indicated by previous research, the children seemed to feel safer and were more willing to express their opinions in a group of children they already knew. They were also asked to pick nick names for themselves so that the researchers would not know their real names, and then were encouraged to create their own name tags that allowed the researchers to address them by their nick names. Ground rules were set out at the start, such as respecting each other, raising hands when they wanted to talk, and listening to others carefully. Then the purpose of the research project was explained again using simple language. With the help of the topic guide, I then facilitated the sharing of the children's experiences and perceptions of maltreatment. But the questions were not strictly followed, so as to allow children to have space to express their views. Children who participated less were specifically encouraged with questions.

4.4.2 Reflections on Ethical Issues

There were several issues emerging during the research process. Firstly, despite confidentiality and anonymity being assured, some parents and children in the qualitative study were concerned about the recorder and family privacy in the beginning. They were provided with reassurance that what they said would be confidential and anonymous. Also, as they engaged themselves in the discussion process and built a trust with researchers, they were gradually paying less attention to these issues.

Secondly, a few children in the focus group discussions became emotional and started crying when they spoke about their experiences. As indicated by previous researchers, participation in research involving sensitive and emotive topics can stimulate emotional responses.²⁶² My strategy was to turn off the recording temporarily, to allow a free flow conversation until these children appeared more relaxed, and then to move back into the discussions. While there were some emotional responses, it does not mean that they were necessarily harmful. Many children and young adults actually found it helpful to

be given the opportunity to talk to someone interested in their experiences and views.

Thirdly, a key issue was whether children aged under 16 were able to give consent for research in classroom settings. In accordance with the UCL regulations, children aged under 16 can give consent if they have sufficient understanding and intelligence to understand fully what is proposed. Chinese regulations follow the same procedure. Although it was difficult to know from the questionnaire survey, my interactions with children in the qualitative study showed that children were able to understand the questions if asked in a child-friendly language, and they were happy to have the opportunity to share their experiences and views.

Lastly, I experienced some post-interview emotional responses as a result of listening to descriptions of participants' maltreatment experiences repeatedly, as I had to be deeply involved with the material. But I was aware that I should maintain the necessary degree of detachment and objectivity to analyse data without passing judgment. The strategy I used to cope with my emotional responses was to talk to my supervisor and friends whenever I felt a need, but promised confidentiality to participants was maintained.

CHAPTER 5 EXPERIENCES AND PERCEPTIONS OF CHILD MALTREATMENT AMONG YOUNG ADULTS

This chapter presents the quantitative research: experiences and perceptions of child maltreatment among young adults.

5.1 Background

As indicated by the literature review, there are three types of sources for information on the prevalence of child maltreatment: parents' reports, children's self-reports and young adults' self-reports, and prevalence rates were generally inconsistent among studies. It is impossible to discern whose reports are the most accurate. Previous research pointed out that parents who used violence against their children were likely to under-report or refuse to disclose such experiences, due to shame, fear of future legal consequences, or social desirability bias in parents.^{52,217} Children may also under-report experiences of maltreatment, especially in severe cases, because of fear or concerns for family privacy. However, young adults might be a reliable source of information, because their recollections are relatively recent and they tend to be more open and willing to participate in research on sensitive matters.²¹⁸ This part of the research aimed first, to investigate young Chinese adults' experiences of childhood maltreatment, and second, to explore their perceptions of such experiences.

5.2 Methods

5.2.1 Sampling Strategy

A cross-sectional study was conducted among university students at three universities located in Hangzhou from January to May 2015. Three universities were purposively selected for inclusion, and represented high, middle and low level educational establishments. Classes were selected based on convenience sampling, but to broadly represent the student body with students from a variety

of disciplines, including medicine, public health, agriculture, economics, mathematics, and engineering. All of the students in each class were asked to complete questionnaires.

The study aimed to estimate the prevalence of childhood maltreatment. According to the previously mentioned meta-analysis, the prevalence of any child physical abuse prior to age 18 in China was 36.6%.⁷¹ The sample size was calculated with a precision of 5% and at type 1 error of 5%. Based on sample size calculation for cross sectional studies,²⁶³ at least 357 university students were needed. The study aimed for a sample size of 400 in each university. A total of 1,255 questionnaires were collected: 396 from the high level establishment, 392 from middle level, and 467 from low level.

5.2.2 Procedure

All of the questionnaires were completed in the classroom setting under 'exam conditions', given the sensitive nature of the topic. With the approval of the university teachers, a specific time was set-aside in class for students to complete the questionnaires. I explained the purpose of the study to all participants. They were told they could refuse to participate and that they could stop at any time if they wanted. An information sheet featured as the first page of the questionnaire (**Appendix 5-1**). All participants gave verbal consent. Strict anonymity and confidentiality were assured; for instance, after completion, the questionnaires were placed directly into a collection box which was then sealed.

The study was approved by the University College London Research Ethics Committee and Zhejiang University Ethics Board. All participants were told they could discuss any difficult issues with a counsellor and a phone number was provided. However, none of them availed themselves of this service.

5.2.3 Measurement

The self-administered questionnaire (**Appendix 5-1**) was developed by drawing on two existing validated tools which have been extensively used in many

countries: ICAST-R and CTSPC.^{74,252} The use of ICAST-R allowed me to explore childhood maltreatment from various perpetrators. The questionnaire was translated into Chinese, back-translated into English, revised then translated again into Chinese by other researchers. A pilot study was conducted among 65 university students, and the questionnaire was then amended accordingly, to maximise its suitability for the Chinese setting. The final version consisted of the following parts:

(1) Experiences of childhood maltreatment. This comprised 14 questions exploring childhood experience of maltreatment, including:

- Physical maltreatment (seven items), including hitting or punching, kicking, shaking, and non-contact corporal punishment (kneeling/standing as a punishment).
- Emotional maltreatment (seven items), including insulting or criticising, threatening to hit without actually doing it, and threatening with abandonment.

Participants were asked if each item listed had happened to them under the age of 18 and were given three response options: 'yes', 'no', and 'cannot remember'. If they answered 'yes', they were further required to indicate the relationship with perpetrators (e.g., father, mother, teacher, peer, siblings or grandparents) and their age when it occurred (e.g., 5 years or below, 5-9 years, 10-13 years or 14-17 years). They were allowed to select more than one option. They were also asked to indicate the frequency of the experiences, and the extent of the harm they felt was caused by such experiences as: 'very severe', 'severe', 'mild', and 'not at all'.

(2) Perceptions of childhood maltreatment. Two general questions were asked about perceptions of their own experience of physical maltreatment. Participants selected one option from the following descriptions: 'I was never hurt on purpose by anyone', 'When I was hit or beaten, mostly it was discipline and it was reasonable and justified', 'When I was hit or beaten, mostly it was discipline, but it was NOT reasonable or justified', and 'When I was hit or beaten, mostly it was NOT discipline and it was not justified'. They were then asked about their perceptions of physical maltreatment compared with peers: 'Much less', 'A little less', 'About the same', 'A little more, and 'Much more - than most children'.

Similar questions were asked and options given relating to emotional maltreatment.

5.2.4 Data analysis

Prevalence of different types of childhood maltreatment were analysed by gender. To analyse socio-demographic associations with maltreatment, I created two binary variables: physical maltreatment ('yes' vs 'no') and emotional maltreatment ('yes' vs 'no'), depending on whether they had experienced any form of maltreatment. Factors analysed included gender, the number of children in the household, residence, parents' marital status, parents' education, economic status and residence status. Statistical differences between these two groups were investigated, using chi-square, or rank sum test where appropriate; logistic regression models were then used to screen for significant factors. I also analysed the characteristics of students in the maltreatment group, including age distribution, frequency and harm. Epidata Software was used for data entry, and SPSS 23.0 was used for data analysis.

5.3 Results

5.3.1 Socio-demographic Profile

A total of 1,201 questionnaires were analysed, after excluding 54 because of missing key variables. **Table 5-1** shows the socio-demographic profile of the respondents. Participants were aged 17 to 26 years old (mean 19.7); 52% were female, 59% were originally from rural areas.

Table 5-1 Socio-demographic profile of participants

Variables	<i>n</i>	%
Age ($X \pm S$)	19.7±1.3	Range 17-26
Gender		
Male	582	48.5
Female	619	51.5
Single child		
Yes	585	48.7
No	616	51.3
Residence		
Urban	490	40.8
Rural	711	59.2
Parents' marital status		
Married	1109	92.3
Separated/ Divorced	51	4.2
Widowed	22	1.8
Remarried	19	1.6
Mother's education		
Primary school or below	388	32.3
Middle school	439	36.6
High school	210	17.5
University or above	164	13.7
Father's education		
Primary school or below	272	22.6
Middle school	414	34.5
High school	292	24.3
University or above	223	18.6
Self-reported Economic status		
High-income	163	13.6
Middle	801	66.7
Low-income	237	19.7
Residence status		
Living with both parents	1042	86.8
Only with mother	55	4.6
Only with father	12	1.0
Neither	92	7.7

Note: percentages do not all add up to 100% because of missing values.

5.3.2 Experience of Childhood Maltreatment

Maltreatment by All Perpetrators. Overall, 92.7% of the students reported having experienced some form of maltreatment by various perpetrators before the age of 18: 80.7% for physical and 81.6% for emotional (**Table 5-2**). Males were more likely than females to report physical maltreatment during childhood after adjusting for other socio-demographic factors ($OR=1.70[1.25, 2.32]$). However, much of this difference was related to higher proportions of certain types of punishment among males, for example, being forced to stand/kneel in a humiliating or painful way, as well as being hit with implements and kicked (**Table 5-2**). Being an only child is shown to be a protective factor for physical maltreatment ($OR=0.69[0.50, 0.93]$). Childhood physical maltreatment did not vary with other socio-demographic factors, including urban or rural residence, parents' marital status, parents' education, household economic status and residence status. There were no socio-demographic associations for emotional maltreatment overall, though more boys reported being threatened with violence than girls (**Table 5-2**).

Table 5-2 Prevalence of childhood maltreatment (N=1201)

Items	Total n (%)	Male n (%)	Female n (%)	P
Physical maltreatment (all types)	969(80.7)	491(84.4)	478(77.2)	0.002
Hit or punched	808(67.3)	411(70.6)	397(64.1)	0.056
Kicked	336(28.0)	208(35.7)	128(20.7)	<0.001
Hit with implements	448(37.3)	246(42.3)	202(32.6)	0.002
Shaken hard	201(16.7)	121(20.8)	80(12.0)	0.001
Stabbed/cut with a knife/sharp object	25(2.1)	15(2.6)	10(1.6)	0.129
Burned or scalded(e.g., cigarettes) or punctured (e.g., needles)	16(1.3)	8(1.4)	8(1.4)	0.361
Forced to stand/kneel in a humiliating or painful way	616(51.3)	351(60.5)	265(42.8)	<0.001
Emotional maltreatment (all types)	980(81.6)	474(81.4)	506(81.7)	0.893
Refused to talk to/ignored which made them feel hurt	485(40.4)	220(37.9)	265(42.8)	0.035
Insulted or criticised	596(49.6)	265(46.3)	327(52.8)	0.076
Told they were not loved or did not deserve love	72(6.0)	37(6.4)	35(5.7)	0.690
Wished they were dead	113(9.4)	46(7.9)	67(10.8)	0.188
Threatened they would be badly hurt or killed	203(16.9)	138(23.8)	65(10.5)	<0.001
Threatened to spank without actually doing it	647(53.9)	349(60.1)	298(48.1)	<0.001
Threatened with abandonment	174(14.5)	84(14.5)	90(14.5)	0.194

Maltreatment by Parents. Childhood maltreatment by parents was reported by 76.1% of the students: 63.3% for physical and 50.8% for emotional. There were no socio-demographic associations for physical maltreatment overall. Females were more likely to report emotional maltreatment by parents (OR=1.31[1.04, 1.66]); rural residence was also a risk factor (OR=1.34[1.06, 1.70]).

Maltreatment by Other Perpetrators. Childhood maltreatment by other types of perpetrator is shown in **Figure 5-1**. The percentages of respondents reporting physical maltreatment in childhood perpetrated by teachers, peers, siblings and grandparents were 48.5%, 23.3%, 8.6% and 6.7% respectively, while emotional maltreatment by teachers, peers, siblings and grandparents was reported by 35.9%, 44.1%, 9.2% and 7.6% respectively.

Common forms of maltreatment. The most common reported forms of maltreatment by parents were hitting/punching (53.6%), hitting with implements (29.4%), threatening to hit (29.5%), insulting (22.1%), and forcing to stand/kneel in a humiliating or painful way (18.5%).

Most common forms of maltreatment by teachers were forcing to stand/kneel (37.6%), insults (32.7%), hitting/punching (20.9%) and hitting with implements (10.4%). By peers, the most common forms were ignoring/refusing to talk (29.3%), threatening to hit (17.2%) and kicking (12.9%). By siblings, common forms were hitting/punching (5.2%), ignoring/refusing to talk (4.8%) and kicking (3.1%). Common forms by grandparents were hitting/punching (5.2%) and threatening to hit (4.4%).

Extreme forms of maltreatment occurred: stabbing/cutting with a knife/sharp object (2.1%), burning/scalding/puncturing (1.3%), and emotional maltreatment, such as telling the child they wished they were dead (9.4%) and saying they were not loved (6.0%).

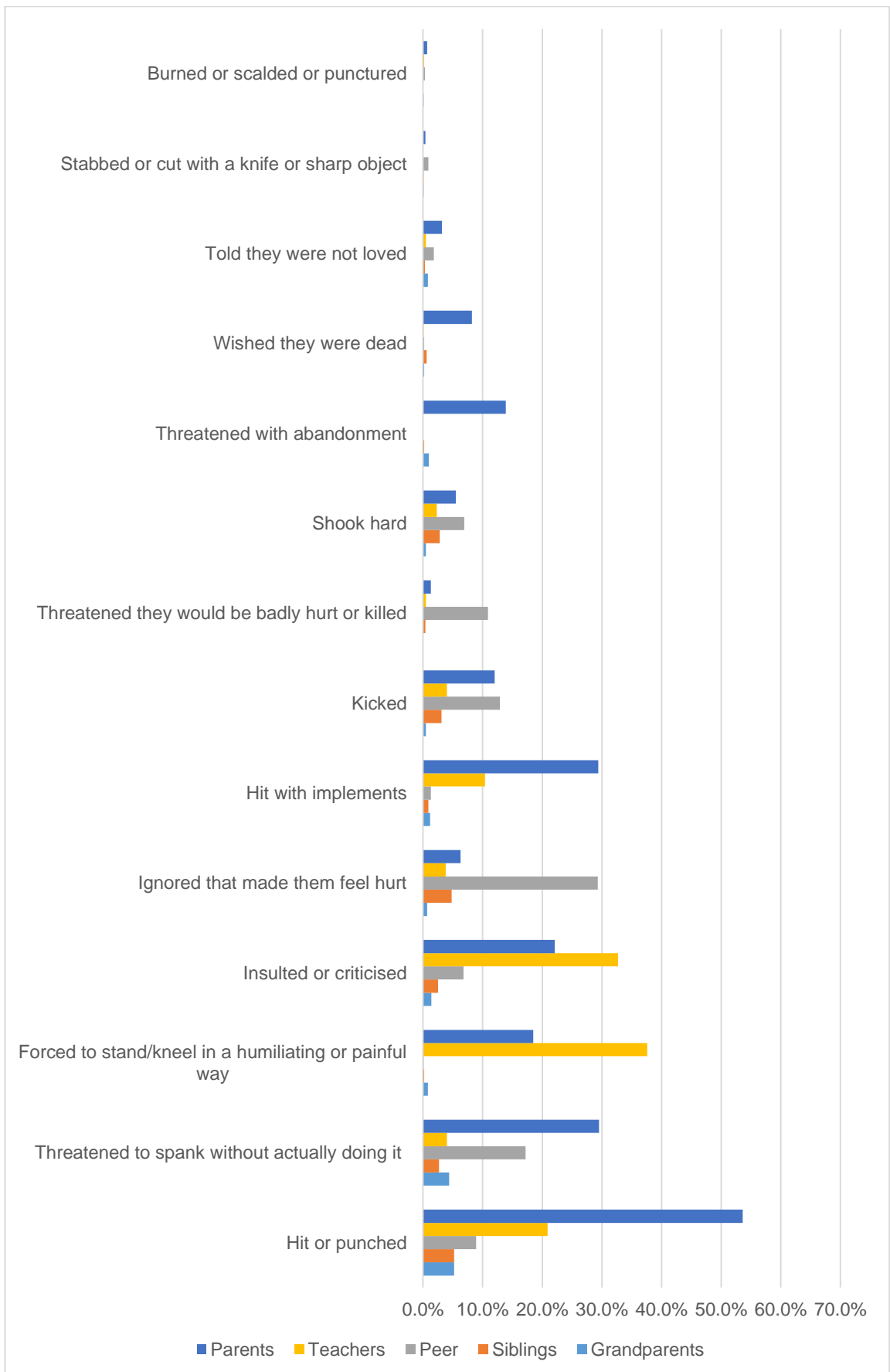


Figure 5-1 Common forms of childhood maltreatment by type of perpetrator

5.3.3 Characteristics of Childhood Maltreatment

Age distribution. Students reported lowest levels of physical maltreatment in the under-five age group (**Table 5-3**). Being hit, punched, kicked or hit with implements were experienced by almost half of all children in the 5 to 13 age group. Experience of emotional maltreatment was generally more common across different age groups from 5 to 17 years old, with again around half of children in these age groups experiencing these types of aggression.

Table 5-3 Age distribution of physical and emotional maltreatment in childhood

Type of childhood maltreatment	Age distribution <i>n</i> (%)			
	5 ys or below	5-9 ys	10-13 ys	14-17 ys
<i>Physical maltreatment</i>				
Hit or punched	156(19.3)	447(55.3)	359(44.4)	133(16.5)
Kicked	23(6.8)	125(37.2)	160(47.6)	73(21.7)
Hit with implements	44(9.8)	221(49.4)	220(49.2)	64(14.3)
Shaken hard	15(7.5)	60(29.9)	83(41.3)	57(28.4)
Stabbed or cut with a knife or sharp object	6(24.0)	4(16.0)	10(40.0)	9(36.0)
Burned or scalded(e.g., cigarettes) or punctured (e.g., needles)	4(25.0)	8(50.0)	5(31.3)	2(12.5)
Forced to stand/kneel	39(6.3)	281(45.6)	337(54.6)	154(25.0)
<i>Emotional maltreatment</i>				
Refused to talk to/ignored which made them feel hurt	14(2.9)	110(22.8)	210(43.5)	244(50.5)
Insulted or criticised	23(3.9)	169(28.4)	312(52.4)	272(45.7)
Told they were not loved or did not deserve love	5(6.8)	17(23.3)	26(35.6)	43(58.9)
Wished they were dead	5(4.4)	32(28.3)	56(49.6)	44(38.9)
Threatened they would be badly hurt or killed	7(3.5)	52(25.7)	85(42.1)	96(47.5)
Threatened to spank without actually doing it	72(11.1)	279(43.2)	294(45.5)	183(28.3)
Threatened with abandonment	25(14.5)	73(42.4)	73(42.4)	40(23.3)

Frequency. For all forms of physical and emotional maltreatment, the majority of students stated that those acts happened less than 10 times (**Table 5-4**). However, some students reported that some forms of physical and emotional maltreatment occurred more than 50 times: 12.0% of those hit or punched, 7.8% of those kicked, 5.9% of those forced to stand/kneel, 12.5% of those told they were not loved, 10.8% told they should be dead, and 10.7% of those insulted/criticised.

Table 5-4 Frequency of physical and emotional maltreatment in childhood

Type of childhood maltreatment	Frequency <i>n</i> (%)		
	>50 times	10-50 times	<10 times
<i>Physical maltreatment</i>			
Hit or punched	96(12.0)	180(22.5)	525(65.5)
Kicked	26(7.8)	40(11.9)	269(80.3)
Hit with implements	20(4.5)	61(13.7)	363(81.8)
Shaken hard	32(16.0)	26(13.0)	142(71.0)
Stabbed or cut with a knife or sharp object	1(4.0)	0(0.0)	24(96.0)
Burned or scalded(e.g., cigarettes) or punctured (e.g., needles)	0(0.0)	2(12.5)	14(87.5)
Forced to stand/kneel	36(5.9)	62(10.2)	510(83.9)
<i>Emotional maltreatment</i>			
Refused to talk to/ignored which made them feel hurt	30(6.2)	94(19.5)	357(74.2)
Insulted or criticised	63(10.7)	108(18.4)	416(70.9)
Told they were not loved or did not deserve love	9(12.5)	13(18.1)	50(69.4)
Wished they were dead	12(10.8)	12(10.8)	87(78.4)
Threatened they would be badly hurt or killed	9(4.5)	15(7.5)	177(88.1)
Threatened to spank without actually doing it	48(7.6)	70(11.1)	515(81.4)
Threatened with abandonment	7(4.2)	17(10.1)	144(85.7)

5.3.4 Perceptions of Childhood Maltreatment

Table 5-5 shows respondents' overall perceptions of their own childhood maltreatment. Of the 969 students who experienced at least one form of physical maltreatment, 734 (75.7%) regarded it as reasonable and justified discipline; only

111 (11.5%) thought it was unreasonable and unjustified. Over half (52.7%) thought that other children experienced more physical maltreatment than them at the time, while 365 (37.8%) thought it was about the same. Of the 980 students who had experienced emotional maltreatment, 406 (41.4%) thought that it was reasonable and justified. Again a majority, 592 (61.0%) of children felt they experienced less emotional maltreatment than peers, and 321 (33.1%) considered their experience was about the same as other children.

Table 5-5 Perceptions of personal experiences of childhood maltreatment

Description	<i>n</i> (%)
Perceptions of physical maltreatment	
I was never hurt on purpose by anyone	101(10.4)
When I was hit or beaten, mostly it was discipline and it was reasonable and justified	734(75.7)
When I was hit or beaten, mostly it was discipline but it was <u>NOT</u> reasonable or justified	111(11.5)
When I was hit or beaten, mostly it was <u>NOT</u> discipline and it was <u>NOT</u> justified	21(2.2)
Perceptions of emotional maltreatment	
I have never felt insulted or threatened by anyone	305(31.1)
When I was insulted or threatened, mostly it was discipline and it was reasonable and justified	406(41.4)
When I was insulted or threatened, mostly it was discipline but it was NOT reasonable or justified	132(13.5)
When I was insulted or threatened, mostly it was NOT discipline and it was NOT justified	136(13.9)

5.3.5 Perceptions of Harm

Perceptions of harm caused by specific acts of childhood maltreatment are shown in **Table 5-6**. In terms of physical maltreatment, 56.3% of respondents reported that hitting and punching were harmful with 9.7% reporting severe or very severe harm. The use of implements, kicking and being forced to stand/kneel were considered harmful by 64.5%, 60.5%, and 59.9% respectively; the percentages of participants reporting severe or very severe harm for each act above were 13.9%, 15.0%, and 11.9% respectively. These forms were perpetrated more by

parents or teachers. Extreme forms that were committed more by parents or peers, such as burning/scalding/puncturing and stabbing/cutting with a knife or sharp object, were perceived as harmful by the majority.

Table 5-6 Perceived harm caused by childhood maltreatment *n* (%)

Type of childhood maltreatment	Harm		
	Not at all	Mild	Severe/very severe
Physical maltreatment			
Hit or punched	351(43.7)	375(46.6)	78(9.7)
Kicked	132(39.5)	152(45.5)	50(15.0)
Hit with implements	158(35.5)	225(50.6)	62(13.9)
Shaken hard	123(61.2)	62(30.8)	16(8.0)
Stabbed or cut with a knife or sharp object	7(28.0)	13(52.0)	5(20.0)
Burned or scalded or punctured	2(13.3)	8(53.3)	5(33.3)
Forced to stand/kneel	246(40.1)	295(48.0)	73(11.9)
Emotional maltreatment			
Refused to talk to/ignored that made them feel hurt	70(14.5)	306(63.4)	107(22.2)
Insulted or criticised	69(11.7)	341(59.5)	170(28.8)
Told they were not loved	15(20.8)	25(34.7)	32(44.4)
Wished they were dead	23(20.7)	44(39.6)	44(39.6)
Threatened they would be badly hurt or killed	55(27.9)	105(53.3)	37(18.8)
Threatened to spank without actually doing it	350(56.7)	228(37.0)	39(6.3)
Threatened with abandonment	56(32.9)	73(42.9)	41(24.1)

Compared with physical maltreatment, forms of emotional maltreatment, which were mainly perpetrated by parents or teachers, were perceived to be more harmful overall, with higher proportions of respondents reporting severe or very severe harm caused by such experience: 88.3% of those insulted/criticised, 79.2% of those who were told they were not loved, 79.3% of those told by parents they wished they were dead, and 69.1% threatened with abandonment, felt that such verbal maltreatment had caused them harm. The percentages of participants reporting severe or very severe harm for the acts above were 28.8%, 44.4%, 39.6%, and 24.1% respectively.

Other forms, such as being ignored and being threatened that they would be

badly hurt, which were mainly perpetrated by peers, were perceived as harmful by 85.5% and 72.1% respectively.

5.5 Summary of Chapter 5

This study adds useful insights into the prevalence, and attitudes towards, child maltreatment in China. It suggests that child maltreatment, as defined by international standards and as reported retrospectively by young adults, is very common in China. Overall, 92.7% of the students reported having experienced some form of maltreatment by various perpetrators before the age of 18 (Physical: male vs female, 84% vs 77%; Emotional: male vs female, 81% vs 82%). Maltreatment perpetrated by parents was reported by 76.1% of students. Considerable maltreatment is perpetrated by teachers (48.5% for physical, 35.9% for emotional). Also worrying is the fact that maltreatment by peers is not uncommon, as well as maltreatment by siblings and grandparents. There were no significant associations between socio-demographic factors and experiences of physical maltreatment by parents. Being female was positively associated, and being of rural residence was also positively associated with emotional maltreatment by parents. Physical maltreatment was reported more frequently in the 5-9 and 10-13 age groups. Emotional maltreatment was generally common across different age groups except for early childhood (under age 5). Among students with maltreatment experience, there was a perceived 'normalisation' of physical and emotional maltreatment of children, and a high acceptance of physical maltreatment. Despite that, many students felt harmed by physical maltreatment. Personal experience of emotional maltreatment was generally perceived as more harmful and less acceptable than physical.

CHAPTER 6 ROLE OF PARENTAL AGGRESSION AND PARENTAL CHILDHOOD MALTREATMENT EXPERIENCE

This chapter presents the quantitative research conducted among parents: role of parental aggression and parental childhood maltreatment experience in the maltreatment of children.

6.1 Background

The reasons why parents maltreat their children are complex, multifactorial in nature and culturally determined.³⁹ After a preliminary literature review, I developed research interests in two of the factors: measured aggressive tendency in parents, and parents' personal history of child maltreatment. During the data analysis stage, I was also intrigued by the relationship between aggressive tendency and intergenerational patterns of maltreatment. Research relating to these issues is summarised below.

Parental Aggressive Tendencies. Parental aggressive tendencies in the context of child maltreatment have been explored in a few Western studies. A meta-analysis of these studies, which were nearly all small case-control studies, found a positive association between measured aggressive tendencies in parents and physical abuse of children.⁴⁹ These studies focused on more severe physical maltreatment. There has been a paucity of research on minor/moderate forms of physical punishment and other types of maltreatment (e.g., emotional maltreatment), and this issue has not been examined in a large general population.

However, in China, there has been limited research on aggression and aggressive tendencies, and evidence has been mixed on the levels of aggression in the Chinese population. Several studies reported lower levels of anger and aggression in Chinese than in Western cultures, with the most common explanation that the Chinese tend to suppress extreme emotions.²⁶⁴⁻²⁶⁶

However, some research from mainland China does not support this. Direct comparisons with other populations were made possible due to the use of the same tool to measure aggression. For instance, Liu and Chen (2014) and Luo (2008) reported higher levels of anger and hostility in Chinese than American university students, and higher physical and verbal aggression in Chinese female students than American.²⁶⁷⁻²⁶⁹ Importantly no studies have examined the relationship between parents' tendency towards aggression and child maltreatment in China.

Intergenerational Transmission of Maltreatment. Parental personal experience of childhood maltreatment was until recently widely believed to be a strong predictor of child maltreatment, the so-called intergenerational hypothesis.^{270,271} This effect is frequently explained by the social learning model which suggests that harsh parenting influences the next generation through modelling of parents' behaviours.⁶⁷ However, the evidence has been challenged by a number of scholars, largely on methodological grounds, for instance, retrospective study design, non-representative samples, or inconsistent definitions of maltreatment.^{270,271} Evidence is emerging which refutes the intergenerational hypothesis. For instance, a recent large prospective 30-year follow-up study in the US used data from multiple sources (e.g., child protection service, parents, nonparents, and offspring) and found no evidence for intergenerational transmission of physical abuse.²⁷² In addition, the intergenerational transmission literature has focused on physical maltreatment,^{67,270} largely ignoring the role of childhood emotional maltreatment or other types of maltreatment in intergenerational continuity. In China, there has been very limited research on this issue.^{112,113}

Aggressive Tendency and Intergenerational Transmission. This research is also concerned with the relationship between aggressive tendencies and intergenerational patterns of maltreatment: does experience of maltreatment lead to aggressive tendencies leading in turn to child maltreatment? Simons and colleagues (1991) proposed that harsh discipline during childhood would produce a 'hostile' personality, which in turn, would lead to harsh parenting of

the next generation.⁶⁶ Likewise, Muller and colleagues (1995) supported the pathway of aggression in the intergenerational transmission of physical maltreatment.⁶⁷ In China, no research has explored the role of parental aggressive personality in intergenerational continuity.

This part of the research aimed to explore the role of parental aggressive tendencies and histories of maltreatment in childhood in the occurrence of maltreatment of their children in mainland China. I also aimed to explore the relationship between parental aggressive tendencies and histories of childhood maltreatment in the aetiology of child maltreatment.

6.2 Methods

6.2.1 Sampling Strategy

A cross-sectional survey was conducted among school children and their parents in Zhejiang Province, from November 2014 to July 2015. This study collected data from child-parent pairs in the same household and allowed me to investigate maltreatment of children from the perspectives of the parent and the child. Child data is reported in **Chapter 7**.

Two urban schools (one primary and one middle) in Binjiang District, Hangzhou and two rural schools (one primary and one middle) in Xinfeng Town, Jiaxing, were recruited for the study. Three classes from each of Grade 5-6 in primary schools and Grade 7-8 in middle schools (children aged 10-16) were randomly selected to participate, resulting in a total of 24 classes. Questionnaires were completed by 821 children. The overall response rate was 99.8% which can be attributed largely to the support and encouragement of teachers.

Questionnaires were completed by 366 rural parents, and 245 urban parents. The overall response rate was 74.2%. Of these 44 were excluded because of missing key variables, leaving a total of 576. The characteristics of parents who

did not complete the questionnaires are reported in **Table S6-1**, by using data from children's reports.

6.2.2 Procedure

School authorities gave permission for the study to be conducted after being provided with detailed information about the study aims and methods. Parents were informed ahead of time that a survey relating to child discipline would be carried-out for children and their parents, and they were strongly encouraged to participate. Because of various logistical constraints the procedure was slightly different in rural and urban areas.

Separate questionnaires were designed for the children and for the parents, although the specific types of maltreatment were identical in both, to allow for direct comparison. In the rural schools researchers placed both versions of the questionnaire in an envelope along with an invitation letter (**Appendix 6-1**) describing the study details and a consent form (**Appendix 6-2**) for the parents. Each pair of questionnaires were given the same identification number in order to match the parent's and child's questionnaires within the same household. The researchers then explained to the children the reason for the study, and what it was about. Children were told that participation was not compulsory, that everything they wrote was confidential and anonymous, and that they could stop at any time for any reason. Researchers stressed the point that it was not a test, and there was no right or wrong answer, and that they should be honest and open in their responses. Children were required to complete and return their questionnaires in the classroom. The researchers were present throughout to provide help with understanding the questionnaire if necessary. An information sheet featured as the first page of the children's questionnaire. All child participants gave verbal consent. Children were asked to take the envelope containing the parental questionnaire, study information and consent form home with them, and to ask either parent to complete it, and to bring it back.

In urban areas, the same classroom procedure was followed, but the envelopes which were taken home to the parents contained information about the study, the consent form, and the method to access and complete the survey online. The online survey platform was the Chinese version of Survey Monkey. The almost universal use of Smartphones in urban China means that such technology has become the default mode for conducting surveys of all types. The use of Survey Monkey in urban areas of course raises questions about comparability with rural areas. However, the main purpose of this study was not to compare the situation between urban and rural areas, but to get a more representative population sample.

My contact details were provided in the invitation letter, so that parents would be able to contact me if they had encountered any difficulties with the completion of questionnaires, or if they had other concerns. The parent invitation letter clearly stated that confidentiality and anonymity were ensured.

The study was approved by the University College London Research Ethics Committee and Zhejiang University Ethics Board. Great care was taken to ensure that all participants, especially children, understood what they were undertaking. All participants were told they could discuss any difficult issues with a counsellor and a phone number was provided. However, none of them availed themselves of this service.

6.2.3 Measures

The children's questionnaire is presented in **Section 7.2.1, Chapter 7**. The parents' questionnaire consisted of the following four aspects (**Appendix 6-3**). A pilot study was conducted among 44 parents in a rural school of Zhejiang Province. Children were asked to take parents' questionnaires home with them, and to ask their parents to complete them, and to bring them back. The questionnaire was then amended accordingly, to maximise its suitability for the Chinese setting.

Parental aggressive tendency. Parental aggression was assessed with the shortened version of the Buss-Perry Aggression Questionnaire (AQ) developed by Bryant and Smith (2001).^{267,273} It is a 12-item scale that measures anger, hostility, physical aggression, and verbal aggression. Anger involves physiological arousal and preparation for aggression, and represents the emotional component of behaviour; hostility refers to negative attitudes, and represents the cognitive component of behaviour; aggression is regarded as the behavioural manifestation of anger and hostility, and involves hurting or harming others.²⁶⁷ Bryant and Smith's (2001) short AQ has been demonstrated to be psychometrically superior.²⁷³ A Chinese version was available and showed good construct validity and adequate internal reliability.²⁶⁵ The Cronbach α for this sample was 0.84. Each AQ item was rated on a 5-point scale from 1 (extremely uncharacteristic of me) to 5 (extremely characteristic of me). Responses were summed to generate subscale scores (each ranging from 3-15) and a total scale score (ranging from 12-60).

Parental history of childhood maltreatment. Two questions were asked to measure parental history of childhood maltreatment: 'when you were less than 18 years old did you experience physical maltreatment (such as being hit by hand or with implements, kicking or being forced to stand or kneel)?' and 'did you ever experience emotional maltreatment (such as being severely criticised, insulted, cursed, physically threatened or threatened with abandonment)?' Example items provided in each question were derived from the Chinese literature and a validated instrument – ICAST-R.²⁵² Parents who answered "yes" to any one of these two questions were classified as having experienced maltreatment in childhood.

Maltreatment of children. The items drew extensively on two existing commonly-used validated tools in many countries: ICAST-C, ICAST-P and CTSPC,^{74,250,251} Chinese versions of which were available.^{249,253} Thirty-eight forms of disciplinary acts (see **Section 6.3.2**) were used to measure child maltreatment, including 21 physical, 12 emotional and five non-contact, for example, withholding a meal. Because the physical maltreatment items differ

tremendously in their severity, subscales indicating minor (5 items), moderate (9 items), and severe maltreatment (7 items) were used according to those defined in CTSPC. In addition, parents' use of 'non-violent discipline' was measured with seven items from CTSPC and ICAST, including telling the child to start or stop doing something, giving the child something else to do, explaining why something was wrong, grounding, time-out, taking away privileges, and rewarding for good behaviours. Parents were asked about their use of such acts in the previous year in the following categories: 0=never; 1=once or twice; 2=3-5 times; 3=6-12 times; 4=13-50 times; 5=more than 50 times. If these acts had not been used in the previous year but had been used before, parents were also required to indicate the situation.

Responses were summed to generate frequency scores for each type of maltreatment. However, in this sample, there were 75%-95% with a score of zero for physical maltreatment and non-contact punishment in the past year. Given the extremely skewed distribution of the frequency scores (**Figure S6-1**), responses were recoded into dichotomous categories as either having or not having the maltreatment experience ('yes' versus 'no').

Experience of preceding-year physical maltreatment was further classified into three exclusive categories: 'severe', 'moderate' and 'minor only'. The category 'minor only' refers to the occurrence of minor forms, excluding the co-occurrence of moderate or severe forms. The category 'moderate' refers to the occurrence of moderate forms, excluding the co-occurrence of severe forms. The category 'severe' refers to the occurrence of moderate forms, including the co-occurrence of minor and moderate severe forms. Categories 'moderate' and 'severe' were merged for analysis purposes due to a small number of cases of 'severe' physical maltreatment (2.3%). Justifications for this classification can be seen in **Table S6-2**.

Socio-demographic background. For the parents this included the parent's age, education and relationship with the child (mother or father), child's sex and

age, the number of children in the household, family economic status, and residence (urban or rural).

6.2.4 Data analysis

Life-time prevalence of child maltreatment indicated one or more of the acts occurred in either the past year or previously. Preceding-year prevalence of child maltreatment indicated whether one or more of the acts occurred during the previous year. Life-time and preceding-year prevalence of different types of maltreatment were calculated. Preceding-year maltreatment was used for the analyses below.

The associations of parental aggression and parental childhood maltreatment with physical maltreatment of children were assessed using multinomial logistic regression models, comparing the relative risks of minor and moderate/severe physical maltreatment to the reference (non-maltreatment group). I estimated relative risk ratios (RRRs) of minor and moderate/severe physical maltreatment for each predictor. For emotional maltreatment and non-contact punishment, I applied binary logistic regression models and estimated odds ratios (ORs), respectively. Next, for each model, I adjusted for socio-demographic factors. I then assessed whether aggression-maltreatment associations were independent of parental history of childhood maltreatment by performing additional analyses with further adjustments. I also calculated the rate of intergenerational transmission, defined as the percentage of the parents maltreated in the childhood who maltreated their own children.^{274,275}

Maltreatment of children defined from the child's perspective was used to validate main findings for the parent data. In this study, 324 mother-child pairs and 235 father-child pairs within the same household were matched (**Table S6-3**). I validated associations of parental aggression and parental childhood maltreatment with child maltreatment by using child-reported maltreatment. The validation analysis showed overall consistency for parent and child data, indicating that the use of parent data for this analysis was appropriate and

justified (**Table S6-4**). For example, the positive association of parental aggression with emotional maltreatment remained in the validation analysis (mother-child: OR=1.03[1.00, 1.06]; father-child: OR=1.06[1.01, 1.10]).

Missing data in the current sample ranged from 0% (including three outcome variables, relationship with the child, child's sex, the number of children, and residence) to 32.3% (parent's age). Comparison of key variables in individuals with and without missing data, and the imputed data profile can be seen from **Table S6-5**. Missing values were more common among urban parents, wealthier parents or those with a history of childhood maltreatment, or those with more than one child. Multiple imputations were used to impute data in order to minimise data loss.²⁷⁶ Imputation models included all model variables and also predictors for non-response (parental experiences of maltreatment, only child, income, and urban residence). Thirty imputed datasets were created, and a length of 10,000 iterations was used. Imputed results were broadly similar to those using the original data. I present the imputed results. The original results can be seen in **Table S6-6**. Epidata Software was used for data entry, and SPSS 23.0 was used for data analysis.

6.3 Results

6.3.1 A Summary of Socio-demographic Profile and Exposures

A Summary of socio-demographic profile and exposures is provided in **Table 6-1**. There were nine step-mothers and three step-fathers, so I combined mothers/step-mothers, and fathers/step-fathers. The mean age of parents was 39.8 [SD =4.9], 57.8% were mothers, and 60.9% were from rural areas. As reported by parents, the mean age of children was 12.8 [SD =1.2], 48.6% were girls, and 46.9% were only children.

Table 6-1 A summary table of key variables reported by parents

Variables	n (%)
Outcome	
Child maltreatment (N=576) ^a	334(58.0)
Physical maltreatment (N=576) ^a	
No	430(74.6)
Minor only [‡]	38(6.6)
Moderate/ Severe	108(18.8)
Emotional maltreatment (N=576) ^a	318(55.2)
Non-contact punishment (N=576) ^a	30(5.2)
Exposure	
Parental history of childhood maltreatment (N=525)	296(56.4)
Parental aggression (Mean±SD)	
Overall (N=515)	25.9±8.9 (range 12-60)
Female	25.7±9.0
Male	26.1±8.9
Anger (N=518)	7.0±3.0 (range 3-15)
Female	7.2±3.1
Male	6.7±2.8
Hostility (N=518)	6.9±3.0 (range 3-15)
Female	6.9±3.0
Male	6.9±2.9
Physical aggression (N=517) ^b	4.9±2.4(range 3-15)
Female	4.6±2.3
Male	5.3±2.6
Verbal aggression (N=517)	7.1±2.6(range 3-15)
Female	7.1±2.7
Male	7.2±2.6
Covariates	
Parents	
Age (Mean±SD) (N=390)	39.8±4.9 (range 22-63)
Relationship with the child (N=576)	
Mothers	333(57.8)
Fathers	243(42.2)
Education (N=519)	
Primary school or below	60(11.6)
Middle school	279(53.8)
High school or above	180(34.7)
Children	
Age (Mean±SD) (N=575)	
Sex (N=576)	12.8±1.2 (range 10-16)
Boy	296(51.4)
Girl	280(48.6)
Single child (N=576)	
Yes	270(46.9)
No	306(53.1)
Family	
Economic status (N=565)	
High-income	88(15.3)
Middle	373(64.8)
Low-income	104(18.1)
Residence (N=576)	
Urban	225(39.1)
Rural	351(60.9)

^a Child maltreatment indicated whether one or more of the acts were used during the previous year, including physical maltreatment, emotional maltreatment and non-contact punishment.

^b Physical aggression score: significant gender difference.

[‡]The category 'minor only' excluded the co-occurrence of moderate or severe physical maltreatment.

Fifty-six percent of parents reported a personal history of childhood maltreatment. The mean score of parental aggression was 25.9 (ranging from 12-60); the mean scores of each subscale were 7.0 for anger, 6.9 for hostility, 4.9 for physical aggression, and 7.1 for verbal aggression. Men scored significantly higher than women only for physical aggression (5.3 vs 4.6).

6.3.2 Experience of Maltreatment of Children

Lifetime prevalence of child maltreatment was 78.5%: 56.1% for physical, 74.8% for emotional, and 21.0% for non-contact. During the previous year, 58.0% of the parents reported committing at least one form of maltreatment: 25.4% for physical (6.6% for minor only, 16.5% for moderate, and 2.3% for severe), 55.2% for emotional, and 5.2% for non-contact. In addition, non-violent discipline was reported by 94.1% of the parents during the previous year. **Table 6-2** illustrates the preceding-year prevalence of 38 forms of maltreatment by parent gender. There were no parent gender differences in any form of maltreatment of children.

The most common forms of physical maltreatment were twisting ears (11.3%), slapping on the bottom with bare hand (10.2%), hitting on the bottom with an implement (7.8%), hitting on head with knuckles (6.8%), and slapping on the hand/arm/leg (6.4%). Severe physical maltreatment occurred: beating-up (1.7%), choking (0.3%), threatening with a knife (0.3%), and burning/scalding/puncturing (0.3%), and using sharp objects to hurt (0.3%).

The most common forms of emotional maltreatment included: shouting and screaming (38.2%), insulting by calling stupid or lazy (25.7%), threatening to spank without actually doing it (23.6%), refusing to talk (16.1%), and cursing (12.5%).

Table 6-2 Preceding-year prevalence of different forms of child maltreatment reported by parents (N=576)

Items	Preceding-year prevalence <i>n</i> (%)		
	Total	Mothers	Fathers
Physical maltreatment	146(25.3)	82(24.6)	64(26.3)
Minor physical maltreatment			
Slapped on the bottom with bare hand	59(10.2)	35(10.5)	24(9.9)
Hit on the bottom with an object such as a stick, broom, cane, or belt	45(7.8)	28(8.4)	17(7.0)
Slapped on the hand, arm, or leg	37(6.4)	17(5.1)	20(8.2)
Shook aggressively	32(5.6)	20(6.0)	12(4.9)
Pinched to cause pain	27(4.7)	16(4.8)	11(4.5)
Moderate physical maltreatment			
Twisted ear	65(11.3)	42(12.6)	23(9.5)
Hit on head with knuckles	39(6.8)	25(7.5)	14(5.8)
Hit elsewhere (not buttocks) with an object such as a stick, broom, cane, or belt	33(5.7)	21(6.3)	12(4.9)
Slapped on face or back of head	22(3.8)	14(4.2)	8(3.3)
Kicked her/him	19(3.3)	7(2.1)	12(4.9)
Hit with a fist	11(1.9)	6(1.8)	5(2.1)
Pulled hair	10(1.7)	5(1.5)	5(2.1)
Threw or knocked down	9(1.6)	5(1.5)	4(1.6)
Put chili pepper, hot pepper, or spicy food in his/her mouth (to cause pain)	2(0.3)	1(0.3)	1(0.4)
Severe physical maltreatment			
Hit over and over again with object or fist (“beat-up”)	10(1.7)	6(1.8)	4(1.6)
Choked to prevent breathing	2(0.3)	1(0.3)	1(0.4)
Threatened with a knife	2(0.3)	1(0.3)	1(0.4)
Burned or scalded or punctured with needles	2(0.3)	2(0.6)	0(0.0)
Used sharp objects to hurt, such as a knife and broken glass	2(0.3)	2(0.6)	0(0.0)
Used a hand or pillow to prevent breathing (smother)	1(0.2)	1(0.3)	0(0.0)
Pressed his/her head under water	1(0.2)	1(0.3)	0(0.0)
Emotional maltreatment	318(55.2)	186(55.9)	132(54.3)
Shouted, yelled, or screamed at him/her	220(38.2)	133(39.9)	87(35.8)
Threatened to spank or hit but did not actually do it	136(23.6)	86(25.8)	50(20.6)
Insulted by calling [name] stupid, lazy, or other names like that	206(25.7)	112(33.6)	79(32.5)
Refused to speak or ignore	93(16.1)	59(17.7)	34(14.0)
Cursed	72(12.5)	43(12.9)	29(11.9)
Threatened to invoke harmful people against him/her, ghosts, or evil spirits	41(7.1)	27(8.1)	14(5.8)
Threatened to leave or abandon	31(5.4)	18(5.4)	13(5.3)
Used public humiliation	30(5.2)	22(6.6)	8(3.3)
Blamed for parents’ misfortune	20(3.5)	12(3.6)	8(3.3)
Said they would be sent away or kicked out of the house	12(2.1)	8(2.4)	4(1.6)
Told them you wished they were dead or had never been born	11(1.9)	7(2.1)	4(1.6)
Threatened to hurt	10(1.7)	7(2.1)	3(1.2)
Non-contact punishment	30(5.2)	19(5.7)	11(4.5)
Forced to hold a position that caused pain (e.g., standing/kneeling)	18(3.1)	11(3.3)	7(2.9)
Locked out of home	10(1.7)	5(1.5)	5(2.1)
Locked in the room	5(0.9)	4(1.2)	1(0.4)
Withheld a meal as punishment	4(0.7)	3(0.9)	1(0.4)
Locked up or tie to restrict movement	3(0.5)	3(0.9)	0(0.0)
Overall child maltreatment	334(58.0)	194(58.3)	140(57.6)

6.3.3 Socio-demographic Associations with Child Maltreatment

Child's sex, age, and urban/rural residence were significantly associated with parental use of physical maltreatment (**Table 6-3**), but the relationships differed with the severity of maltreatment. For example, parents reported they were more likely to use moderate/severe physical maltreatment with boys (OR=2.45[1.48, 4.06]), and with younger children (10-12 years) compared with 15-16 year olds (OR=3.40[1.21, 9.51]). Compared to urban, rural parents were much more likely to report using minor physical maltreatment (OR=8.24[2.43, 27.98]). In terms of emotional maltreatment (**Table 6-4**), younger parents (<40 years) were more likely to use emotional maltreatment than older parents (>46 years) (e.g., <35 years: OR=3.26[1.28, 8.29]), rural parents more than urban (OR=1.74[1.10, 2.75]), and low/middle income more likely than high income (low income: OR=2.92 [1.39, 6.11]; middle income: OR=2.25[1.25, 4.05]). Parents were more likely to use emotional maltreatment with boys (OR=1.75[1.17, 2.60]) and children aged 10-12 (OR=2.05[1.00, 4.19]). Finally, parents used more non-contact punishment with boys (OR=2.99[1.19, 7.56]).

6.3.4 Parent Aggression and Maltreatment of Children

The associations between subscale scores of parental aggression were similar to the results when using the overall aggression score. Therefore, I focus here on the results for parental overall aggression. Results for subscale scores can be seen from **Table S6-7** and **Table S6-8**.

Higher parent aggression scores were significantly associated with physical maltreatment of children (**Table 6-3**). For moderate/severe physical maltreatment the OR was 1.06[1.04, 1.09] for each point higher on the overall aggression score, and 1.05[1.01, 1.09] for each point for minor physical maltreatment. These associations persisted after adjusting for covariates (for each point on the aggression score: moderate/severe, OR=1.06[1.03, 1.10]; minor, OR=1.06[1.01, 1.11]), and were not abolished with further adjustments for parental history of childhood maltreatment (moderate/severe: OR=1.06[1.03, 1.09]; minor: OR=1.06[1.01, 1.11]).

Table 6-3 Associations between parental childhood maltreatment/aggression and physical maltreatment of their children (multiple imputed data): relative risk ratios (RRRs) and 95% CIs

Variables	PM (Ref.= No)--Unadjusted		PM (Ref.= No)—Adjusted ^a		PM (Ref.= No)--Adjusted ^b		PM (Ref.= No)—Adjusted ^c	
	Minor only	Moderate/severe	Minor only	Moderate/severe	Minor only	Moderate/severe	Minor only	Moderate/severe
Overall aggression	1.05(1.01,1.09)*	1.06(1.04,1.09)*	1.06(1.01,1.11)*	1.06(1.03,1.10)*	-	-	1.06(1.01,1.11)*	1.06(1.03,1.09)*
Parental childhood maltreatment	2.00(0.96,4.14)	2.02(1.28,3.18)*	-	-	1.58(0.71,3.54)	1.80(1.08,3.00)*	1.32(0.57,3.02)	1.48(0.87,2.52)
Parent's age (Ref.= 46 or above)								
35 or below	1.94(0.33,11.45)	1.04(0.41,2.64)	1.69(0.23,12.62)	1.67(0.53,5.30)	1.77(0.24,13.02)	1.72(0.54,5.46)	1.67(0.22,12.44)	1.63(0.51,5.17)
36-40	3.48(0.79,15.37)	1.14(0.55,2.39)	2.89(0.56,14.89)	1.77(0.73,4.31)	2.99(0.59,15.24)	1.86(0.77,4.49)	2.87(0.56,14.78)	1.78(0.73,4.34)
41-45	1.72(0.34,8.68)	0.83(0.36,1.90)	2.19(0.40,11.99)	1.23(0.50,3.02)	2.15(0.39,11.75)	1.24(0.51,3.03)	2.20(0.40,12.03)	1.24(0.51,3.06)
Relationship with child (Ref.=Fathers)								
Mothers	0.79(0.41,1.54)	0.96(0.63,1.47)	0.94(0.43,2.08)	1.07(0.64,1.78)	1.00(0.45,2.21)	1.16(0.69,1.93)	0.98(0.44,2.18)	1.14(0.68,1.93)
Parent's education (Ref.= Primary school or below)								
Middle school	1.92(0.43,8.59)	0.75(0.39,1.44)	1.21(0.24,6.01)	0.61(0.28,1.34)	1.38(0.28,6.73)	0.69(0.32,1.48)	1.21(0.24,6.03)	0.61(0.28,1.34)
High school or above	2.89 (0.65,12.92)	0.70(0.34,1.43)	3.33(0.66,16.88)	0.78(0.32,1.91)	3.39(0.68,16.88)	0.80(0.33,1.92)	3.32(0.65,16.84)	0.77(0.31,1.88)
Child's age (Ref.= 15-16)								
10-12	1.31(0.43,4.00)	1.78(0.75,4.20)	2.56(0.71,9.27)	3.33(1.19,9.32)*	2.06(0.58,7.35)	2.67(0.97,7.37)	2.56(0.71,9.27)	3.40(1.21,9.51)*
13-14	0.63(0.20,1.96)	1.41(0.60,3.31)	1.07(0.29,3.95)	2.61(0.95,7.14)	0.93(0.25,3.44)	2.29(0.84,6.25)	1.07(0.29,3.96)	2.67 (0.97,7.33)
Child's sex (Ref.=Girl)								
Boy	1.94(0.98,3.84)	2.08(1.34,3.22)*	1.88(0.88,4.03)	2.46(1.48,4.10)*	1.93(0.90,4.11)	2.45(1.48,4.06)*	1.86(0.87,4.00)	2.45(1.47,4.09)*
Single child (Ref.=No)								
Yes	1.95(0.98,3.88)	0.81(0.53,1.25)	1.30(0.57,2.96)	0.63(0.37,1.08)	1.25(0.56,2.80)	0.61(0.36,1.04)	1.31(0.57,3.12)	0.64(0.37,1.09)
Residence (Ref.= Urban)								
Rural	6.36(2.22,18.23)*	1.44(0.92,2.23)	8.52(2.53,28.66)*	1.49(0.85,2.63)	7.40(2.22,24.66)*	1.32(0.75,2.30)	8.24(2.43,27.98)*	1.42(0.81,2.50)
Family economic status (Ref.= High-income)								
Middle	1.33(0.49,3.59)	2.09(1.00,4.37)	0.77(0.25,2.38)	1.64(0.70,3.83)	1.00(0.33,2.99)	1.96(0.85,4.54)	0.78(0.25,2.45)	1.64(0.70,3.84)
Low-income	1.46(0.44,4.83)	3.29(1.45,7.47)*	0.79(0.20,3.14)	2.41(0.92,6.28)	1.04(0.27,3.93)	2.96(1.16,7.58)*	0.77(0.19,3.06)	2.28(0.87,5.95)

Abbreviations: PM, physical maltreatment. * $P < 0.05$.

RRR from multinomial logistic regression; Reference category: No

^a Model included parental aggression and covariates, including parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

^b Model included parental childhood maltreatment and covariates, including parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

^c Full Model included parental aggression, parental childhood maltreatment and covariates, including parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

Table 6-4 Associations between parental childhood maltreatment/aggression and maltreatment of their children (emotional maltreatment and non-contact punishment)

Variables	<i>Emotional maltreatment -- OR (95% CI)</i>				<i>Non-contact punishment-- OR (95% CI)</i>			
	Unadjusted	Adjusted ^a	Adjusted ^b	Adjusted ^c	Unadjusted	Adjusted ^a	Adjusted ^b	Adjusted ^c
Overall aggression	1.07(1.04,1.09)*	1.07(1.04,1.10)*	-	1.07(1.04,1.09)*	1.06(1.02,1.11)*	1.07(1.02,1.13)*	-	1.07(1.02,1.12)*
Parental childhood maltreatment	1.80(1.26,2.56)*	-	1.89(1.27,2.83)*	1.54(1.01,2.34)*	2.23(0.90,5.54)	-	2.31(0.88,6.08)	1.88(0.69,5.13)
Parent's age (Ref.= 46 or above)								
35 or below	2.58(1.24,5.39)*	3.30(1.30,9.36)*	3.29(1.32,8.18)*	3.26(1.28,8.29)*	0.54(0.11,2.62)	0.64(0.11,3.80)	0.65(0.11,3.82)	0.58(0.10,3.49)
36-40	1.94(1.06,3.55)*	2.26(1.08,4.73)*	2.36(1.14,4.92)*	2.28(1.08,4.82)*	0.92(0.29,2.93)	1.37(0.33,5.72)	1.38(0.35,5.51)	1.32(0.31,5.59)
41-45	1.09(0.58,2.06)	1.29(0.64,2.61)	1.33(0.66,2.67)	1.33(0.65,2.71)	0.63(0.16,2.53)	0.91(0.20,4.18)	0.88(0.20,3.87)	0.88(0.19,4.06)
Relationship with the child (Ref.=Fathers)								
Mothers	0.94(0.67,1.31)	1.19(0.79,1.78)	1.05(0.70,1.58)	1.10 (0.72,1.67)	0.78(0.37,1.68)	0.68(0.28,1.63)	0.64(0.27,1.52)	0.63(0.26,1.53)
Parent's education (Ref.= Primary school or below)								
Middle school	1.26(0.73,2.18)	0.90(0.46,1.74)	1.02(0.54,1.94)	0.91(0.47,1.76)	1.21(0.35,4.17)	1.44(0.34,6.16)	1.69(0.41,6.96)	1.41(0.33,5.97)
High school or above	1.53(0.85,2.74)	1.15(0.56,2.38)	1.17(0.57,2.39)	1.15(0.55,2.41)	0.71(0.15,3.37)	0.88(0.14,5.58)	0.96(0.16,5.89)	0.83(0.13,5.32)
Child's age (Ref.= 15-16)								
10-12	1.54(0.85,2.80)	2.05(1.00,4.18)*	1.55(0.78,3.11)	2.05(1.00,4.19)*	2.07(0.57,7.45)	3.53(0.60,20.67)	2.85(0.50,16.30)	3.56(0.61,20.85)
13-14	1.35(0.75,2.43)	1.76(0.88,3.52)	1.46(0.74,2.88)	1.78(0.89,3.56)	0.94(0.18,4.83)	1.38(0.22,8.48)	1.25 (0.21,7.57)	1.39(0.23,8.56)
Child's sex (Ref.=Girl)								
Boy	1.60(1.15,2.22)*	1.74(1.17,2.59)*	1.78(1.21,2.62)*	1.75(1.17,2.60)*	2.73(1.20,6.24)*	3.08(1.22,7.77)*	3.03(1.23,7.46)*	2.99(1.19,7.56)*
Single child (Ref.=No)								
Yes	0.80(0.58,1.11)	1.03(0.67,1.57)	1.06(0.70,1.60)	1.02(0.67,1.57)	1.56(0.73,3.34)	2.06(0.81,5.27)	2.08(0.83,5.18)	2.02(0.79,5.16)
Residence (Ref.= Urban)								
Rural	1.38(0.98,1.93)	1.65(1.05,2.60)*	1.80(1.15,2.81)*	1.74(1.10,2.75)*	0.90(0.42,1.93)	0.94(0.37,2.37)	1.08(0.43,2.70)	1.06(0.41,2.72)
Family economic status (Ref.= High-income)								
Middle	2.34(1.45,3.76)*	2.23(1.24,4.01)*	2.63(1.50,4.62)*	2.25(1.25,4.05)*	0.94(0.31,2.91)	0.61(0.17,2.26)	0.76(0.22,2.66)	0.60(0.16,2.21)
Low-income	2.57(1.43,4.62)*	3.10(1.49,6.47)*	3.61(1.78,7.32)*	2.92(1.39,6.11)*	1.93(0.57,6.50)	1.00(0.24,4.17)	1.29(0.33,5.04)	0.88(0.21,3.71)

^a Model included parental aggression and covariates, including parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

^b Model included parental childhood maltreatment and covariates, including parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

^c Full Model included parental aggression, parental childhood maltreatment and covariates, including parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

*P<0.05

Higher aggression scores were associated with an increased tendency to emotional maltreatment (**Table 6-4**). The OR for emotional maltreatment was 1.07[1.04, 1.10] for each point higher on the overall aggression; the significant association persisted with additional adjustments for parental history of childhood maltreatment and other covariates (OR=1.07[1.04, 1.09]).

Non-contact punishment was associated with higher levels of overall parental aggression (**Table 6-4**). The OR of non-contact punishment was 1.07 for each point of the overall aggression score in the fully adjusted model (OR=1.07[1.02, 1.12]).

6.3.5 Parental history of childhood maltreatment and maltreatment of children

Among 296 parents with a history of childhood maltreatment, 254 (85.8%) admitted to maltreating their own children. In other words, the rate of intergenerational transmission was 85.8%.

Parents with a history of childhood maltreatment were twice as likely to use moderate/severe physical maltreatment. But this ceased to be significant after adjustment for parental aggression score and socio-demographic variables (OR=1.48[0.87, 2.52]). There was no significant association between parental childhood maltreatment and the use of minor physical maltreatment (**Table 6-3**). Parental childhood maltreatment was significantly associated with the use of emotional maltreatment (OR=1.89[1.27, 2.83]), reduced slightly (OR=1.54[1.01, 2.34]) after adjusting for parental aggression and socio-demographic variables (**Table 6-4**). There was no significant association between parental childhood maltreatment and the use of non-contact punishment either in the unadjusted or adjusted analysis (**Table 6-4**).

6.5 Summary of Chapter 6

This is the first study from mainland China to explore the relationship between different types of child maltreatment, aggressive tendencies in parents and parental childhood maltreatment. Lifetime prevalence of maltreatment of children reported by parents was 78.5% (56.1% for physical, 74.8% for emotional, and 21.0% for non-contact). During the last year, 58.0% of parents reported committing at least one form of maltreatment: 25.4% for physical (6.6% for minor only, 16.5% for moderate, and 2.3% for severe), 55.2% for emotional, and 5.2% for non-contact. The study showed a higher incidence of moderate/severe physical and emotional maltreatment of boys and younger children; emotional maltreatment of children was also strongly associated with parental and family factors, such as parents' younger age, rural residence, and low economic status. Higher parental aggression scores were associated with increased risk of all types of maltreatment of children (ORs ranged from 1.06-1.07 for each point higher on the aggression scale). Parental history of childhood maltreatment was associated with significantly increased risk of moderate/severe physical maltreatment of children (OR=1.80[1.08, 3.00]); parental aggression was an explanatory factor of this association. Parental childhood maltreatment was positively associated with emotional maltreatment of children (OR=1.89[1.27, 2.83]). This was partly explained by parental aggression.

CHAPTER 7 EFFECTS OF MALTREATMENT IN THE HOME SETTING ON EMOTIONAL AND BEHAVIOURAL PROBLEMS IN CHILDREN

This chapter presents the quantitative research: effects of maltreatment in the home setting on emotional and behavioural problems in Chinese children.

7.1 Background

There is a growing recognition of the substantial impact of child maltreatment on the mental and physical health and well-being of children throughout their lives. This research was particularly interested in comparing relative effects of different types of child maltreatment. Relevant research evidence from Western countries and China is described below.

There is mounting and consistent evidence in Western countries to suggest positive associations between child maltreatment and negative outcomes, including education and employment, physical health (e.g., obesity), cognition, internalising symptoms (e.g., anxiety, depression, or suicide attempts), externalising problems (e.g., aggression, delinquency, or conduct disorders), post-traumatic stress disorder (PTSD), drug and alcohol problems, risky sexual behaviours, criminal behaviours.^{6,232,277-281} A systematic review of research from the East Asia and Pacific Region also provides evidence of negative impacts of child maltreatment, although research in the region has primarily focused on mental health.²⁸² In addition, evidence shows stronger effects of multiple-type exposure as well as repeated and ongoing maltreatment. For example, the co-occurrence of different types of maltreatment has a cumulative effect on behavioural problems;^{280,283} the risk of youth violence accumulates when child abuse persists into adolescence.²⁸⁴

There is increasing research from China to support negative effects of child maltreatment, with the majority focusing on mental health consequences.^{173,179}

However, most studies do not differentiate the severity of physical maltreatment.^{93,176} There has also been no systematic exploration of the effects of emotional maltreatment, the interactions between different types of maltreatment exposure, or the effects of witnessing domestic violence on child outcomes in the Chinese setting.

Witnessing domestic violence is increasingly regarded as a form of child maltreatment in its own right, with many studies, unsurprisingly, showing that domestic violence increases the risk of maltreatment of children.^{6,50-54,247} The combination of witnessing domestic violence and physical maltreatment has been shown to have a synergistic negative effect on children's behaviours.^{131,285-288} But evidence is mixed relating to their relative contributions,^{285,288} and most studies have been limited to physical maltreatment, ignoring the co-occurrence of other types of maltreatment. More importantly, there is a paucity of research on this issue in mainland China.

This part of research aimed (1) to examine the effects of different types of maltreatment on child emotional and behavioural problems; (2) to explore the independent contribution of each exposure by considering them simultaneously; (3) to assess the cumulative effects of all exposures.

7.2 Methods

7.2.1 Measures

The children's questionnaire consisted of the following aspects (**Appendix 7-1**). A pilot study was conducted among 60 children. The questionnaire was then amended accordingly, to maximise its suitability for the Chinese setting.

Maltreatment exposures. Because of the very wide range of punishments known in China, questions about experience of maltreatment at home included 38 forms of maltreatment: 21 physical, 12 emotional and five non-contact forms

of punishment. These forms can be seen from the supplementary table (**Table S7-1**). Because the physical maltreatment items differ tremendously in their severity, subscales indicating minor (5 items), moderate (9 items), and severe maltreatment (7 items) were used according to those defined in CTSPC. The items drew on a literature review and two existing validated tools that have been used in many countries: ICAST-C and CTSPC.^{74,251} ICAST-C has been used in a Taiwanese study, and CTSPC has been extensively used in Chinese populations.^{108,124} These acts can be committed by a range of perpetrators, including parents, grandparents, or siblings. For each item, children were asked about their experience during the previous year in the following categories: 0=never; 1=once or twice; 2=3-5 times; 3=6-12 times; 4=13-50 times; 5=more than 50 times. If it had not happened in the previous year but had happened before, they were also required to indicate the situation. If it had occurred either in the past year or previously, children were further required to indicate the relationship with perpetrators.

Responses were summed to generate frequency scores for each scale of maltreatment (including subscales of physical maltreatment). However, in this sample, there were 68%-92% with a score of zero for physical maltreatment and non-contact punishment in the past year. Given the extremely skewed distribution of the frequency scores (**Figure S7-1**), responses were recoded into dichotomous categories as either having or not having experienced maltreatment at home ('yes' versus 'no'). Experience of preceding-year physical maltreatment was further categorised into: 'severe', 'moderate', 'minor only'. It is worth noting that in this study the category 'minor only' excluded the co-occurrence of moderate or severe forms, and the category 'moderate' excluded the co-occurrence of severe forms.

Experience of witnessing domestic violence was additionally measured with four questions from ICAST-C, that is witnessing adults getting drunk and then behaving in a way that frightened the child, quarrelling, fighting, and threatening/hurting with implements at home, (not limited to the past year).

Children who answered “yes” to any one of these four questions were classified as having been exposed to domestic violence.

To investigate the cumulative effects of multiple types of maltreatment, I generated an additional variable representing the number of types (0, 1, 2, 3, and 4).

Outcomes. Emotional and behavioural problems were assessed through the emotional symptoms and conduct problems scales of the Strengths and Difficulties Questionnaire (SDQ). The SDQ is a brief behavioural screening questionnaire designed for 3-16 year olds.²⁸⁹ It has been widely used in China. Each scale has five items, with each item rated on a 3-point scale from 1 (not true) to 3 (certainly true). Examples of *emotional symptoms* are: ‘I worry a lot’, and ‘I am often unhappy, downhearted or tearful’. Examples of *conduct problems* are: ‘I get very angry and often lose my temper’, ‘I fight a lot’, and ‘I am often accused of lying or cheating’. The score for each scale is generated by summing the individual scores, with a total score ranging from 0 to 10, which is then classified as normal, borderline or abnormal. The scale scores were not subjected to a normal distribution (**Figure S7-2**). I adopted bandings recommended by a Chinese study: for the emotional symptoms scale, the cut-offs were: normal (score=0-4), borderline (score=5), and abnormal (score=6-10); for conduct problems: normal (score=0-3), borderline (score=4), and abnormal (score=5-10).²⁹⁰

Covariates. This included child’s sex and age, parents’ education, number of siblings, residence (urban or rural), family economic status, and family structure (e.g., single-parent, or remarried family).

7.2.2 Data analysis

Life-time prevalence of child maltreatment indicated one or more of the acts occurred in either the past year or previously. Preceding-year prevalence of

child maltreatment indicated whether one or more of the acts occurred during the previous year. Lifetime prevalence and preceding year-prevalence of different types of child maltreatment were summarised. Correlations of preceding-year prevalence of child maltreatment by family members and by parents were analysed. Given the high correlation coefficients between them (ranging from 0.88-0.91, **Table S7-2**), I chose to use 'child maltreatment perpetrated by family members in the past year' as exposure variables in this study.

The impacts of exposures on child emotional and behavioural problems were assessed using multinomial logistic regression to compare the relative risks of borderline and abnormal groups to normal group (as the reference) by each exposure. I estimated relative risk ratios (RRRs) of borderline and abnormal groups for each maltreatment exposure. I adjusted for socio-demographic factors. Next, I examined the independent effects of each exposure by considering all simultaneously in the model. Lastly, boys and girls were analysed separately in order to examine whether there were gender differences in the impact of child maltreatment, as some evidence showed that different types of child maltreatment might affect boys and girls differently.^{120,126,232}

In addition, I conducted a sensitive analysis, as it is indicated by previous research that the recommended cut-offs for the SDQ vary according to country.^{289,290} I repeated the analysis above by using cut-offs recommended for a British sample.²⁹¹ The results were overall consistent (**Table S7-3**).

Missing data in this sample ranged from 0% (including maltreatment exposures, outcomes, child sex/age, and residence) to 13.3% (maternal education) and 13.8% (paternal education). Comparison of key variables in individuals with and without missing data, and the imputed data profile can be seen from **Table S7-4**. Multiple imputations were used to impute data in order to minimise data loss.²⁹² Imputation models included all model variables. Thirty imputed datasets were created, and a length of 10,000 iterations was used. The imputed results are presented. The original results can be seen in **Table S7-5**. Epidata Software was used for data entry, and SPSS 23.0 was used for data analysis.

7.3 Results

7.3.1 A Summary of Socio-Demographic Factors, Exposure and Outcome

Questionnaires were completed by 821 children. The overall response rate was 99.8% which can be attributed largely to the support and encouragement of teachers. Of these, 30 were excluded because of missing key variables (e.g., items of exposures or outcomes), leaving a total of 791.

The socio-demographic profile can be seen in **Table 7-1**. The mean age of children was 12.6 [SD =1.1], 51.5% were boys, 55.5% had siblings, and 53.1% were from urban areas; 28.4%, 61.8% and 9.7% reported high, middle and low income backgrounds, respectively.

Experience of Maltreatment at Home. Lifetime prevalence of child maltreatment by family members (including parents, grandparents and siblings) was 75.5%: 58.5% for physical, 65.5% for emotional, and 20.4% for non-contact. Lifetime prevalence of child maltreatment by parents was 68.6%: 50.1% for physical, 58.5% for emotional, and 17.7% for non-contact. Lifetime prevalence of child maltreatment by grandparents and siblings were 13.8% and 9.4%, respectively.

Preceding-year prevalence of child maltreatment by family members was 58.2%: 37.7% for total physical (5.6% for minor only, 27.6% for moderate, and 4.6% for severe), 47.5% for emotional, and 8.2% for non-contact punishment; preceding-year prevalence rates of child maltreatment by parents, grandparents, and siblings were 51.7%, 7.6%, and 6.8%, respectively; 49.4% of the children reported witnessing domestic violence; 20.9% reported experiencing three or four types of maltreatment. The percentage of children with no experience of maltreatment was 26.0%.

Table 7-1 Descriptive analysis of key variables

Key variables	n (%)	Emotional symptoms n (%)		Conduct problems n (%)	
		Borderline	Abnormal	Borderline	Abnormal
All children (N=791)	-	67(8.5)	94(11.9)	68(8.6)	69(8.7)
Socio-demographic variables					
Child's sex (N=791)					
Boy	407(51.5)	28(6.9)	51(12.5)	39(9.6)	43(10.6)
Girl	384(48.5)	39(10.2)	43(11.2)	29(7.6)	26(6.8)
Child's age (Mean±SD) (N=791)					
10-11	12.6 ±1.1	-	-	-	-
10-11	167(21.1)	9(5.4)	25(15.0)	9(5.4)	13(7.8)
12	198(25.0)	14(7.1)	22(11.1)	19(9.6)	14(7.1)
13	224(28.3)	21(9.4)	26(11.6)	16(7.1)	19(8.5)
14	183(23.1)	21(11.5)	21(11.5)	21(11.5)	22(12.0)
15-16	19(2.4)	2(10.5)	0(0.0)	3(15.8)	1(5.3)
Single child (N=786)					
Yes	350(44.5)	30(8.6)	38(10.9)	38(10.9)	33(9.4)
No	436(55.5)	37(8.5)	55(12.6)	29(6.7)	36(8.3)
Mother's Education (N=686)					
Primary school or below	134(19.5)	6(4.5)	19(14.2)	8(6.0)	11(8.2)
Middle school	350(51.0)	32(9.1)	38(10.9)	36(10.3)	33(9.4)
High school	146(21.3)	15(10.3)	16(11.0)	15(10.3)	11(7.5)
University or above	56(8.2)	5(8.9)	6(10.7)	3(5.4)	5(8.9)
Father's Education (N=682)					
Primary school or below	125(18.3)	10(8.0)	19(15.2)	11(8.8)	13(10.4)
Middle school	341(50.0)	28(8.2)	40(11.7)	30(8.8)	29(8.5)
High school	145(21.3)	15(10.3)	15(10.3)	13(9.0)	15(10.3)
University or above	71(10.4)	4(5.6)	5(7.0)	7(9.9)	3(4.2)
Residence (N=791)					
Urban	420(53.1)	42(10.0)	51(12.1)	37(8.8)	42(10.0)
Rural	371(46.9)	25(6.7)	43(11.6)	31(8.4)	27(7.3)
Economic status (N=749)					
High-income	213(28.4)	18(8.5)	24(11.3)	18(8.5)	22(10.3)
Middle	463(61.8)	43(9.3)	52(11.2)	42(9.1)	38(8.2)
Low-income	73(9.7)	4(5.5)	15(20.5)	5(6.8)	7(9.6)
Family structure (N=779)					
Two biological parents	696(89.3)	58(8.3)	76(10.9)	61(8.8)	59(8.5)
Single parent	54(6.9)	4(7.4)	9(16.7)	4(7.4)	4(7.4)
Remarried	29(3.7)	5(17.2)	7(24.1)	2(6.9)	6(20.7)
Exposures					
Physical maltreatment* (N=791)					
Severe	36(4.6)	4(11.1)	10(27.8)	5(13.9)	12(33.3)
Moderate	218(27.6)	21(9.6)	40(18.3)	28(12.8)	26(11.9)
Minor only [‡]	44(5.6)	7(15.9)	3(6.8)	2(4.5)	3(6.8)
No	493(62.3)	35(7.1)	41(8.3)	33(6.7)	28(5.7)
Emotional maltreatment* (N=791)					
Yes	376(47.5)	42(11.2)	63(16.8)	44(11.7)	50(13.3)
No	415 (52.5)	25(6.0)	31(7.5)	24(5.8)	19(4.6)
Non-contact punishment* (N=791)					
Yes	65(8.2)	6(9.2)	15(23.1)	4(6.2)	15(23.1)
No	735(92.9)	61(8.4)	79(10.9)	64(8.7)	54(7.4)
Witness of violence at home(N=786)					
Yes	388(49.4)	42(10.8)	57(14.7)	41(10.6)	45(11.6)
No	398(50.6)	25(6.3)	37(9.3)	26(6.5)	24(6.0)
Multiple types (N=786)					
Four types	32(4.1)	4(12.5)	11(34.4)	2(6.3)	11(34.4)
Three types	132(16.8)	13(9.8)	27(20.5)	18(13.6)	18(13.6)
Two types	180(22.9)	24(13.3)	20(11.1)	21(11.7)	21(11.7)
One type	238(30.3)	19(8.0)	23(9.7)	19(8.0)	11(4.6)
No	204(26.0)	7(3.4)	13(6.4)	7(3.4)	8(3.9)

*This refers to maltreatment perpetrated by family members during the previous year.

[‡]The category 'minor only' excluded the co-occurrence of moderate or severe physical maltreatment.

Emotional and Behavioural Problems. Twelve percent of the children (12.5% of boys, 11.2% of girls) scored in the abnormal range for emotional symptoms, and 8.5% (6.9% of boys, 10.2% of girls) borderline. Nine percent of the children (10.6% of boys, 6.8% of girls) scored in the abnormal range for conduct problems and 8.6% (9.6% of boys, 7.6% of girls) borderline.

7.3.2 Socio-demographic Associations with Child Maltreatment

There were no socio-demographic associations with minor physical maltreatment; boys reported more moderate physical maltreatment than girls (OR= 1.51[1.07, 2.13]), and there was a decreased trend with child's age (OR= 0.81[0.70, 0.94]); severe physical maltreatment was positively associated with a younger age of children, low economic status (low vs high: OR= 4.24[1.20, 14.96]) and remarried family (remarried vs two biological parents, OR= 4.20[1.19, 14.79]).

Emotional maltreatment was reported more by children with low and middle economic status (low vs high: OR= 2.48[1.37, 4.51]; middle vs high: OR= 1.73[1.21, 2.47]).

Non-contact punishment was reported more by boys than girls (OR= 2.56[1.44, 4.58]), and children living with single or both parents without grandparents more than those living with both parents and grandparents (single parent without grandparents: OR= 4.72[1.55, 14.36]; both parents without grandparents: OR= 2.22[1.19, 4.12]); non-contact punishment decreased with child's age (OR= 0.68[0.53, 0.86]).

Here I describe the effects of maltreatment on abnormal emotions and behaviours in children; results for borderline problems can be seen from tables (**Table 7-2 and 7-3**).

7.3.3 Impacts of Physical Maltreatment

Moderate and severe (not minor) physical maltreatment was positively associated with abnormal emotional symptoms after adjusting for socio-

demographic factors (moderate: RRR=2.50[1.53, 4.10]; severe: RRR=3.72[1.59, 8.74]). The positive association of moderate physical maltreatment with abnormal emotions persisted though attenuated (RRR=1.82[1.06, 3.11]), after controlling for all exposures. Children with experience of moderate and severe (but not minor) physical maltreatment had an elevated risk of abnormal conduct after adjustment (moderate: RRR=2.62[1.46, 4.71]; severe: RRR=11.69[4.79, 28.54]). When considering all exposures simultaneously, the positive association of severe physical maltreatment with abnormal conduct persisted though attenuated (RRR=4.75[1.74, 12.98]).

7.3.4 Impacts of Emotional Maltreatment

Emotional maltreatment was positively associated with a higher risk of abnormal emotions and behaviours after adjustment for socio-demographic factors (RRR range: 2.55-3.72); the associations persisted but reduced slightly when controlling for all exposures (Emotional problems: RRR=1.85[1.10, 3.13]; Conduct problems: RRR=2.36[1.25, 4.46]).

7.3.5 Impacts of Non-contact Punishment

For non-contact punishment, there was an elevated risk of abnormal emotions (RRR=2.23[1.15, 4.32]) and behaviours (RRR=4.03[2.01, 8.07]) after adjusting for socio-demographic factors. But these relationships disappeared after controlling for other exposures.

7.3.6 Impacts of Witnessing Domestic Violence

Witnessing domestic violence was associated with an increased risk of abnormal emotions and behaviours after adjustment for covariates (RRR range: 1.79-2.36), but the positive associations disappeared after adjusting for other exposures.

Table 7-2 Impact of maltreatment on emotional symptoms: relative risk ratios (RRRs)^a and 95% CIs

Exposures	N (%)	Adjusted for sex and age		Adjusted for sex, age and others ^b		Further adjusted for other exposures	
		Borderline	Abnormal	Borderline	Abnormal	Borderline	Abnormal
PM (Ref.=No)							
Severe	36(4.6)	2.54(0.82,7.89)	4.56(2.01,10.36)*	2.61(0.80,8.50)	3.72(1.59,8.74)*	1.39(0.39,4.98)	2.04(0.79,5.24)
Moderate	218(27.6)	1.74(0.98,3.10)	2.56(1.59,4.13)*	1.75(0.97,3.16)	2.50(1.53,4.10)*	1.27(0.67,2.41)	1.82(1.06,3.11)*
Minor only [‡]	44(5.6)	2.60(1.06,6.35)*	0.88(0.26,3.00)	2.67(1.06,6.74)*	0.88(0.26,3.03)	1.91(0.73,5.01)	0.67(0.19,2.35)
EM (Ref.=No)							
Yes	376(47.5)	2.29(1.36,3.86)*	2.67(1.69,4.22)*	2.36(1.38,4.03)*	2.55(1.59,4.07)*	1.88(1.04,3.38)*	1.85(1.10,3.13)*
NCP (Ref.=No)							
Yes	65(8.2)	1.61(0.65,3.99)	2.43(1.28,4.62)*	1.66(0.65,4.21)	2.23(1.15,4.32)*	1.16(0.43,3.15)	1.35(0.66,2.74)
WV (Ref.=No)							
Yes	388(49.4)	1.96(1.16,3.30)*	1.79(1.15,2.78)*	2.11(1.23,3.61)*	1.79(1.13,2.83)*	1.80(1.03,3.14)*	1.43(0.88,2.31)
Multiple types (Ref.=No)							
4 types	32(4.1)	7.91(3.99,15.71)*	9.09(5.58,14.78)*	9.47(2.35,38.13)*	8.19(3.02,22.18)*	-	-
3 types	132(16.8)	3.92(1.51,10.19)*	4.11(2.02,8.36)*	4.37(1.64,11.62)*	4.06(1.95,8.44)*	-	-
2 types	180(22.9)	4.80(2.01,11.47)*	2.08(1.00,4.33)	5.07(2.08,12.39)*	2.08(0.98,4.40)	-	-
1 type	238(30.3)	2.51(1.03,6.11)*	1.68(0.83,3.43)	2.69(1.09,6.67)*	1.71(0.83,3.52)	-	-
Multiple types ^c	-	1.54(1.23,1.92)*	1.66(1.37,2.01)*	1.59(1.26,2.01)*	1.63(1.34,1.98)*	-	-

Abbreviations: PM, physical maltreatment; EM, emotional maltreatment; NCP, non-contact punishment; CM, child maltreatment; WV, witnessing domestic violence.

* $P < 0.05$.

^a RRR from multinomial logistic regression; Reference category: Normal

^b Other covariates included the number of children, maternal and paternal education, urban/rural residence, economic status, and family structure.

^c Treated as a continuous variable.

[‡]The category 'minor only' excluded the co-occurrence of moderate or severe physical maltreatment.

Table 7-3 Impact of maltreatment on conduct problems: relative risk ratios (RRRs)^a and 95% CIs

Exposures	N (%)	Adjusted for sex and age		Adjusted for sex, age and others ^b		Further adjusted for other exposures	
		Borderline	Abnormal	Borderline	Abnormal	Borderline	Abnormal
PM (Ref.=No)							
Severe	36(4.6)	3.72(1.29,10.73)*	10.15(4.41,23.36)*	4.41(1.46,13.31)*	11.69(4.79,28.54)*	3.00(0.92,9.77)	4.75(1.74,12.98)*
Moderate	218(27.6)	2.35(1.37,4.04)*	2.52(1.43,4.46)*	2.48(1.43,4.32)*	2.62(1.46,4.71)*	1.91(1.05,3.48)*	1.63(0.86,3.09)
Minor only [‡]	44(5.6)	0.72(0.17,3.14)	1.27(0.37,4.40)	0.72(0.16,3.17)	1.22(0.35,4.29)	0.50(0.11,2.25)	0.77(0.21,2.83)
EM (Ref.=No)							
Yes	376(47.5)	2.48(1.47,4.18)*	3.52(2.02,6.12)*	2.69(1.57,4.61)*	3.72(2.11,6.57)*	2.12(1.18,3.82)*	2.36(1.25,4.46)*
NCP (Ref.=No)							
Yes	65(8.2)	0.87(0.30,2.51)	3.76(1.93,7.32)*	0.91(0.31,2.70)	4.03(2.01,8.07)*	0.48(0.16,1.49)	1.91(0.88,4.16)
WV (Ref.=No)							
Yes	388(49.4)	1.80(1.08,3.01)*	2.17(1.29,3.66)*	1.91(1.12,3.26)*	2.36(1.37,4.04)*	1.62(0.93,2.81)	1.73(0.97,3.06)
Multiple types (Ref.=No)							
4 types	32(4.1)	3.12(1.34,7.26)*	14.65(8.58,25.02)*	4.16(0.76,22.67)	19.88(6.46,61.23)*	-	-
3 types	132(16.8)	5.21(2.10,12.95)*	4.54(1.89,10.87)*	6.03(2.37,15.33)*	5.23(2.12,12.90)*	-	-
2 types	180(22.9)	4.25(1.75,10.30)*	3.65(1.57,8.48)*	4.60(1.86,11.36)*	4.14(1.73,9.90)*	-	-
1 type	238(30.3)	2.43(1.00,5.91)	1.18(0.47,3.01)	2.62(1.06,6.45)*	1.33(0.51,3.44)	-	-
Multiple types ^c	-	1.52(1.22,1.89)*	1.96(1.56,2.46)*	1.60(1.27,2.02)*	2.05(1.62,2.60)*	-	-

Abbreviations: PM, physical maltreatment; EM, emotional maltreatment; NCP, non-contact punishment; CM, child maltreatment; WV, witnessing domestic violence.

* $P < 0.05$.

^a RRR from multinomial logistic regression; Reference category: Normal

^b Other covariates included the number of children, maternal and paternal education, urban/rural residence, economic status, and family structure.

^c Treated as a continuous variable.

[‡]The category 'minor only' excluded the co-occurrence of moderate or severe physical maltreatment.

7.3.7 Sex Difference

The impact of maltreatment differed with child sex (**Table S7-6 and Table S7-7**). Physical maltreatment affected boys but not girls regarding abnormal emotions and behaviours (RRR range: 3.20-6.66). Emotional maltreatment affected girls but not boys regarding abnormal emotions and behaviours (RRR range: 2.57-4.07). Non-contact punishment affected boys but not girls regarding abnormal conduct (RRR=2.67[1.03, 6.90]). Witnessing domestic violence had no effects on abnormal emotions and behaviours, but influenced boys regarding borderline conduct problems (RRR=2.20[1.05, 4.63]) and girls regarding borderline emotional symptoms (RRR=2.36[1.08, 5.19]).

7.3.8 Cumulative Effects

The risk of emotional and behavioural problems increased by the number of maltreatment types. For abnormal emotional symptoms, the RRR was 1.63[1.34, 1.98] for each additional type of maltreatment (*'four types'* vs *'no'*: RRR=8.19[3.02, 22.18]). For abnormal conduct, the RRR was 2.05[1.62, 2.60] for each additional type (*'four types'* vs *'no'*: RRR=19.78[6.46, 61.23]).

7.4 Summary of Chapter 7

Nearly three quarters of the children experienced some type of maltreatment at home: 37.7% for physical (5.6% for minor, 27.6% for moderate, and 4.6% for severe), 47.5% for emotional, 8.2% for non-contact punishment, and 49.4% for witnessing domestic violence; 20.9% were exposed to three or four types of maltreatment. Moderate physical maltreatment and non-contact punishment were positively associated with child factors, such as being boys and of younger age, while severe physical maltreatment and emotional maltreatment were strongly related to family-related factors, such as low economic status and a remarried family structure. Emotional maltreatment was consistently associated with a higher risk of emotional and behavioural problems (RRR ranging from 1.85-2.36), after adjusting for other types of maltreatment and socio-economic factors. Severe physical maltreatment showed the strongest association with abnormal conduct (RRR=4.75[1.74, 12.98]). Witnessing domestic violence

alone was not associated with abnormal emotions and behaviours in children. The effect size of emotional maltreatment was greater for girls, while physical maltreatment and non-contact punishment had greater effects among boys. There was a cumulative negative effect with the increasing number of maltreatment types.

CHAPTER 8 EXPERIENCES AND PERCEPTIONS OF CHILD MALTREATMENT FROM A QUALITATIVE PERSPECTIVE

This chapter presents experiences and perceptions of child maltreatment from a qualitative perspective.

8.1 Background

As indicated by the literature review, only two qualitative studies have been performed previously.^{24,78} However, one study only interviewed nine child victims of physical maltreatment, and the other study only sampled children diagnosed with attention deficit hyperactivity disorder.^{24,78} More qualitative research is needed in the Chinese context to gain an in-depth understanding of the nature and complexity of child maltreatment. This section of the research aimed to explore experiences and perceptions of various types of child maltreatment of young adults, parents and children from a qualitative perspective, and to contribute to the small body of qualitative research on sensitive topics in China.

8.2 Methods

8.2.1 Sampling Strategy

The study sites were urban and rural areas of Zhejiang Province. Forty-one semi-structured interviews and three focus group discussions (FGD) were carried-out among young adults, parents and children. I used different strategies to recruit different populations. For young adults, two universities located in Hangzhou were selected, representing high and low level educational establishments. The university teachers were approached through Zhejiang University. I explained the purpose of the study to them and obtained permission to conduct interviews. I then asked the teachers to introduce the study to their students, and with consent, to give me their contact numbers. The sample comprised of 11 university students, representing students from a

variety of demographic backgrounds in terms of sex, age, and residence (urban or rural).

Twenty-one parents from Hangzhou and counties in Quzhou prefecture were recruited to participate in the interviews based on convenience sampling, including eight parents and thirteen professionals (including six teachers, two paediatricians, three general doctors, and two representatives of the Women's Federation). The purposes of including professionals were explained in **Section 4.3, Chapter 4**. The participants were approached through Zhejiang University and local health authorities. I first explained the study and sample strategy to the staff of the local health authorities, and they then helped to contact households, schools, hospitals, and the Women's Federation. With permission, I was given the contact numbers of parents who agreed to participate in the research.

Children were recruited from schools. One boarding school comprising all three educational stages (primary, middle and high school) in Hangzhou and two public schools (one primary school and one middle school) in the counties of Quzhou prefecture were selected based on convenience sampling. School authorities gave permission for the interviews and focus group discussions to be conducted after being provided with detailed information about the study aims and methods. I then worked with the teachers to sample children from a variety of backgrounds to participate in the study based on factors such as age, sex, and academic performance. I started with the urban boarding school. Nine children aged 12-15 were selected to take part in the interviews, and one group of eight children aged 10-11 were sampled to participate in the focus group discussion. Focus group discussions were conducted for younger children, due to the commonly held view that they are more suitable than one-to-one interviews in this age group, since younger children often lack confidence in communicating directly with unfamiliar adults in a 1-to-1 situation.^{293,294} Power issues between the adult researchers and the children may also be reduced in focus groups.²⁹⁵ Based on the information I collected in the urban school, I chose to do more focus group discussions in rural areas to achieve saturation. One group of eight children aged 11-12 and another group of six children aged

13-14 were sampled from the two rural public schools. All children in focus groups were from the same grade in order to avoid problems caused by a large age discrepancy within each group. For instance, as suggested by previous research, the presence of an older child may inhibit the participation of younger children.²⁹⁶ In addition, mixed-sex groups were used in order to uncover the variability of experiences, as suggested by previous research.²⁵⁷

8.2.2 Topic Guides

University students and children were asked about their experiences and perceptions of punishment and maltreatment. Parents were asked about their experiences of maltreating or disciplining children. Sensitive broad terms, such as “violence”, “abuse” or “maltreatment” that might induce nervousness or defensiveness in the participants, were not used in the interviews and focus groups. Instead, I asked about the occurrence of specific disciplinary acts.

Detailed topic guides can be seen in **Appendix 8-1**. It covered four broad topics: (1) experiences of maltreatment during childhood or experiences of maltreating children; (2) reasons behind or behaviours leading to being maltreated or maltreating children; (3) perceptions of such experiences; (4) effects of child maltreatment on health and well-being. Pilot interviews were conducted to inform the content of the topic guides, in terms of the vocabulary and thinking patterns of the participants.

Participants who participated less were encouraged with more specific questions. I had an informal chat with participants to allow a degree of comfort and trust to be established first. When interviewing young people or children, I started with a few general questions. For instance, *‘overall what do you think of your parents’ disciplinary methods?’*, *‘What affected you most in terms of your childhood experience in relation to discipline and punishment?’*, *‘What do you think of as good behaviours in children?’* or *‘Did your parents say/do something to encourage you when you behave well? If so what?’*. I then moved to questions in relation to their experiences of punishment or maltreatment, for instance, *‘What did your parents say/do to discipline you when you were naughty or made mistakes? If so what? Why?’*. More sensitive and detailed

questions might also be asked, depending on participants' responses to previous questions. For instance, if violent disciplinary acts were not mentioned by children or young people, the following questions would be asked as a way of triangulating data: *'Have your parents ever used physical punishment with you? If so what? Why?'* or *'Have your parents ever used verbal aggression with you? If so what? Why?'*. Specific examples were used if necessary in order to stimulate participants' memories of personal experiences. Similar strategies were used with parents.

8.2.3 Procedure

All participants were shown the information sheet (**Appendix 8-2**) and consent form (**Appendix 8-3**). Great care was taken to ensure that all of them, especially children, understood what they were undertaking. Issues of confidentiality and anonymity were explained clearly to all participants. In addition, children in the focus groups agreed upon rules of outside disclosure: 'not to share any private information shared in the group with people outside the group'. All participants were aware of their rights of refusal to participate and that they could stop at any time during the study. All participants gave written consent of their participation. With permission, all interviews and focus group discussions were recorded. Because of the emotive nature of the research topic, all participants were told they could discuss any difficult issues with a counsellor and a phone number was provided. However, none of them availed themselves of this service. No one opted out of the study. All participants were offered an opportunity to clarify or add anything at the end of the interview.

Interviews with university students and parents were conducted in places where participants were comfortable. All interviews and focus group discussions with children were conducted in separate, unoccupied rooms in schools, where we would not be interrupted. An important consideration was that participants, especially children, would feel more comfortable within an environment they were familiar with. I had an informal chat (using nonthreatening 'warm up' questions) with them before the interviews or used ice-breaking exercises before the group discussions, then moved from general questions to more sensitive ones to allow a degree of comfort and trust to be established first. I

specifically explained to the children that it was not a test, and there were no right or wrong answers, and that they should be honest and open in their responses. I made 'field notes' during and immediately after each interview about observations, thoughts and ideas regarding the interview, as this would help in data analysis process.

All children in each group discussion were invited to sit in a circle-shape, and then share their hobbies in order to create a relaxed atmosphere. The children were led during these 'get-acquainted' activities. They were from different classes, but some of them already knew each other. As indicated by previous research, the children seemed to feel safer and were more willing to express their opinions in a group of children they already knew. They were also asked to pick nicknames for themselves so that the researchers would not know their real names, and then were encouraged to create their own name tags that allowed the researchers to address them by their nicknames. Ground rules were set out at the start, such as respecting each other, raising hands when they wanted to talk, and listening to other people carefully. Then the purpose of the research project was explained again using simple language. With the help of the topic guide, I then facilitated the sharing of the children's experiences and perceptions of maltreatment. But the questions were not strictly followed, so as to allow children to have space to express their views. Children who participated less were specifically encouraged with questions. Apart from myself, the other researcher was present as a note-taker to record the process. A few children in the focus group discussions became emotional and started crying when they spoke about their experiences. As indicated by previous researchers, participation in research involving sensitive and emotive topics can stimulate emotional responses.²⁶² My strategy in these situations was to stop recording temporarily, to allow a free flow conversation until these children appeared more relaxed, and then to move back into the discussions.

As expected, this study showed that group participation stimulated children's memories of personal experiences and generated group discussions that were grounded in lived experiences, consistent with previous research.²⁹⁷ In addition,

previous research suggested that children can be more relaxed discussing issues among peers than they might be if interviewed alone by an adult.²⁵⁷ My research lends support to this: in the first group discussion with children from the urban school, the atmosphere was very lively; very personal and wide-ranging discussions were provoked; children in the group derived considerable support as they shared similar experiences. However, in the other two groups of children from the rural schools, the discussions were less lively as members of the group waited for someone else to respond; more strategies were used to encourage participation.

The interviews ran from 30-60 minutes in length, and the duration of each focus group discussion lasted from 35-90 minutes. I intentionally avoided a long discussion with the children, as I observed that younger children became less concentrated on the questions, as indicated by previous researchers.²⁹⁸ For instance, children were allowed to have a short break in the 90 minute focus group discussion in consideration of their attention span.

8.2.4 Data analysis

All audio data was subsequently transcribed verbatim in Chinese. Thematic analysis was used to analyse the data.^{299,300} As a method for identifying, analysing, and reporting themes within data, thematic analysis is considered to be an accessible and theoretically flexible approach to analyse qualitative data. Manual analysis (for open coding) was primarily used to analyse the data. Data from the three populations were analysed separately. Focusing on the research aims and objectives, I first read through all of the transcripts and familiarised myself with the data. On this basis, a set of codes (in English) across the entire data set was generated. Quotations of related codes were then collated into groups, which were reviewed and named. Subsequently, a number of themes were identified. Themes were then reviewed and refined to ensure that they were consistent with the original data. Throughout the whole process, I maintained communication with my supervisor to clarify codes and themes. **Figure 8-1** shows a diagrammatic representation of the data analysis.

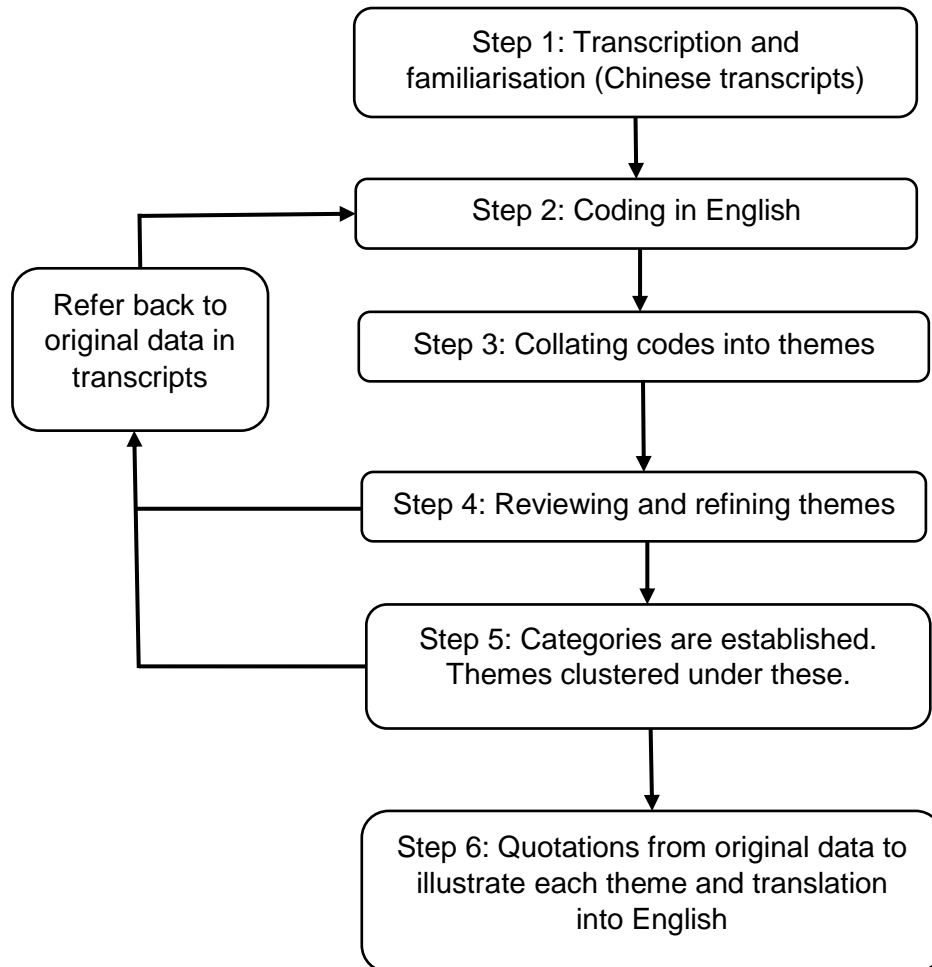


Figure 8-1 Diagrammatic representation of the data analysis

As indicated by previous researchers, it is essential to maintain objectivity in qualitative research, yet it might be more difficult, especially when the topic is sensitive and emotive. For instance, during the interview process, I was able to maintain a fine balance between objective and empathetic listening, and a non-judgmental stance. However, I experienced some post-interview emotional responses as a result of listening to descriptions of participants' maltreatment experiences repeatedly, as I had to be deeply involved with the material. But I was aware that I should maintain the necessary degree of detachment and objectivity to analyse data without passing judgment. The strategy I used to cope with my emotional responses was to talk to my supervisor and friends whenever I felt a need, but promised confidentiality to participants was maintained.

8.3 Results

8.3.1 Profile

The demographic profile of the participants in the interviews can be seen from **Table 8-1**. The sex, age, and grade distribution of the child participants in each focus group is presented in **Table 8-2**.

Table 8-1 Demographic background of the participants in the interviews

Variable	N	%
University students (N=11)		
Age($X \pm S$)	21±1.2	Range 19-23
Sex		
Male	5	45.5
Female	6	55.5
Residence		
Urban	4	36.3
Rural	6	54.5
Rural-to-urban migration	1	9.1
University		
Zhejiang University	6	55.5
Hangzhou Medical College	5	45.5
Parents (N=21)		
Age		
35 or below	4	19.0
36-40	7	33.3
Over 40	10	47.6
Gender		
Male	8	38.1
Female	13	61.9
Residence		
Urban	12	57.1
Rural	9	42.9
Occupation		
Teachers	6	28.6
Paediatricians	2	9.5
General doctors	3	14.3
Representatives of the Women's Federation	2	9.5
Other	8	38.1
The number of children		
One	16	76.2
Two	5	23.8
Children's age	-	Ranging 2-25
Children (N=9)		
Age($X \pm S$)	14±1.6	Range 12-16
Gender		
Male	4	44.4
Female	5	55.6
Residence		
Urban	6	66.7
Rural	3	33.3
School type		
Middle school	3	33.3
High school	6	66.7

Table 8-2 Child participants in each focus group

Group	School	No. of students	Sex		Age	School type
			Male	Female		
1	1	8	4	4	10-11	Primary (urban)
2	2	8	4	4	11-12	Primary (rural)
3	3	6	2	4	13-14	Middle (rural)

8.3.2 Young People: Themes and Quotations

The analysis generated 14 themes which were grouped into four categories (Table 8-3). An example of an analysed transcript is presented in Appendix 8-4, and an illustrative list of constituent codes for each theme are presented in Appendix 8-5.

Table 8-3 Categories and themes of the qualitative research with young people

Category	Themes
1. Overview of experiences of child maltreatment	(1) Age of child maltreatment
	(2) Various forms of maltreatment
	(3) Various children's behaviours
	(4) Transactional process involving multiple factors
2. Perception of child maltreatment	(1) Focus on parents' intentions
	(2) Perception of misbehaviours and mistakes causing maltreatment
	(3) Perception of effects on parent-child relationship
3. Perception of long-term harm from maltreatment	(1) Unrecoverable physical injury
	(2) Poor emotion control and aggressive tendencies
	(3) Psychological harm
4. Possible factors moderating harm from maltreatment	(1) Perception of parents' good intentions
	(2) Perception of the Chinese punitive culture
	(3) Parental warmth in daily life
	(4) Positive parent-child interaction after harsh discipline

Category 1 Overview of experiences of child maltreatment

All university students in the interviews reported having experienced some form of maltreatment at home. Two university students reported their childhood experience of corporal punishment in schools.

(1) Age of child maltreatment

Physical maltreatment was reported by university students to have occurred less as they grew up and mainly took place in primary school.

(2) Various forms of maltreatment

A very wide range of punishments or disciplinary acts were reported by university students (see **Table 8-4**).

Table 8-4 A summary of types/forms of maltreatment from the qualitative study

Type	Forms
Physical maltreatment*	<p>Minor: hitting on the bottom with bare hand, hitting on the bottom with an implement (e.g., slipper, clothes hanger, feather duster, iron rod, or book), slapping on the hand or back, pinching to cause pain.</p> <p>Moderate: hitting elsewhere with an implement, slapping on the face, hitting on the head, hitting on the forehead with knuckles, hitting on the mouth which caused bleeding, throwing things at the child.</p> <p>Severe: hitting the child which caused long term unrecoverable physical injury.</p>
Emotional maltreatment	Refusing to talk to or ignoring the child for a long period, criticising, insulting, derogatory or deprecating comments, calling the child stupid or an idiot, screaming or shouting at the child, public humiliation, comparing the child with other good children, threats of severe violence (e.g., threats of hurting with needles), threats of abandonment, and statements such as saying the child was picked up from the rubbish bin, asking the child to leave the house, or expressing wishes that the child had not been born.
Non-contact punishment	Standing, kneeling or half squatting for prolonged periods, withholding a meal, making the child hit himself/herself on the hand, locking the child in a wardrobe, tying the child to restrict movement, and making the child play piano for a long time without giving food.

*Severity of physical maltreatment defined in CTSPC⁷⁴

In particular, a male student reported a long term unrecoverable physical injury caused by physical maltreatment during adolescence.

- *My dad hit me once when I was in Grade 9, because I was caught truanting. My dad thought this was not something that a good child should do. He felt I had become a bad boy. I was in the stage of adolescent rebellion. So when my dad hit me, I fought back. In the end, I had a hand fracture. It is a permanent physical injury. (Y8, university student, male, urban residence, 22 years old)*

(3) Various children’s behaviours

A variety of children’s behaviours that caused maltreatment were reported by young people (see **Table 8-5**).

Table 8-5 A variety of children’s behaviours causing maltreatment

Category	Examples
Safety issues	Playing with fire, playing near a river, road safety
Conduct or manner issues	Lying, stealing, fighting, bad manners or attitudes, bad language, disrespecting the elderly, quarrelling with parents
Sibling issues	Fighting or quarrelling with siblings/cousins
Study or related issues	Not doing homework, low achievement in exams, truanting, being late for school, sleeping or talking in class
Children’s living habits	Nail biting, eating habits, littering, fear of sleeping in a dark room alone, computer time, too much TV, ignoring bed time, not getting up in the morning, or not helping at home
Others	Losing or destroying family property or other people’s property accidentally, playing outdoors with classmates for a long time, making mistakes when playing piano, religious beliefs, or disobedience to parents’ wishes

(4) Transactional process involving multiple factors

In many situations, there appeared to be no single cause of child maltreatment, as indicated by experiences of university students. The results showed that children’s undesirable behaviours in the immediate context may play a role in the occurrence of their own maltreatment. However, frequent and severe

maltreatment of children seems more likely to occur as a result of a transactional process involving characteristics of parents and family, and social context they are embedded in.

Inter-parental violence. One female university student reported frequent exposure to emotional maltreatment from parents every time when they have disputes with each other. This shows that inter-parental violence might increase the risk of frequent emotional maltreatment of children.

- *My entire childhood was spent watching my parents fighting with each other. Every time when they have quarrels, they would say to me that they regret that I was born or call me 'stupid' or 'an idiot'. Similar things happen to my brother. I think this is very hurtful to children. When they do this to my brother or when I realise they're going to do this, I would try to protect him and comfort him. I would tell him that 'mum and dad did not mean to do this. They actually love you very much'. Then he would cry in front of me. (Y9, university student, female, rural residence, 20 years old)*

Parents' poor emotion control and their own abusive childhoods. The results indicate that emotional maltreatment might be more commonly perpetrated by mothers who have difficulty with controlling their own emotions, even when they are highly educated, which could be attributed to their own abusive and troubled childhoods. For instance, a university student described his repeated experience of being scolded severely by his mother due to her lack of patience or bad temper and also shared his mother's experience of frequent physical maltreatment in childhood.

- *Being scolded severely for no reason is awful and frightening. It occurred to me a lot when I was a child. My mum would become a totally different person at that time. I always felt she had got a bad temper and become aggressive easily. Her discipline was dominated by criticising and scolding. It has exerted a subtle influence on my character in the long term... My mum often tells me about her childhood experience of her mum hitting them with tools when she and her siblings made mistakes. She also said that she did not feel loved by her parents when she was a child (Y10, university student, male, urban residence, 23 years old)*

Single motherhood and poor emotion control during times of additional stress and tension. This study shows that child maltreatment seems to arise as a result of a transactional process involving multiple factors at different levels, including single motherhood, poor emotion control and psychological stress from work. This is reported by a male university student.

- *My parents are divorced. I lived with my mum until middle school. Afterwards, I've been living with my dad. My mum is a nurse. She got angry easily, especially when her job often made her feel stressed. If I happened to do something wrong, she would hit me without asking why or giving any explanations. I experienced all kinds of physical punishment... When I was in Grade 6, my mum threatened to abandon me. It was very hurtful. I really hated her for a while until I found out that she never stopped fighting with my dad for custody of me. (Y8, university student, male, urban residence, 22 years old)*

Parents' low level of education, high expectations of children and focus on academic success. Several students' experiences suggest that frequent maltreatment seems more likely to occur if parents themselves did not achieve a high level of education, while having high expectations of their children and paying great attention to their children's academic performance.

- *I experienced too much physical punishment when I was a child. As long as I failed my exams, my dad would hit me. He hit me irrespective of the severity of behaviours when I was in primary school. Once he made me kneel on the floor for half an hour because my rank in the exam was really bad. (Y4, university student, male, rural residence, 21 years old)*

Parents' low level of education and rural-to-urban migration. Some students' experiences indicate that severe physical punishment might be more common in migrant families with low-educational backgrounds due to stress and frustration stemming from socioeconomic disadvantage, as migrant parents face more psychological and social adversities, such as discrimination from urban residents.

- *When I was in Grade 4, I went to a supermarket with my parents. I really liked a toy there, but I broke it by accident. The staff asked my parents for compensation. They felt really embarrassed and got very angry. They blamed me in front of other*

people; after we got home, they hit me very hard. I felt I was a very disobedient child, and made my parents lose face in front of other people. Although they were a bit harsh, I was able to understand them. They were doing some business in an urban area, but they probably still dressed or behaved like that they were from rural areas. After I broke the toy, they felt that they were discriminated. I made them feel embarrassed in public. They were really annoyed. I think they use physical punishment, because they are not highly educated, and it is common in China. It is widely accepted in the Chinese culture. (Y6, university student, male, rural-to-urban migration, 19 years old)

Prolonged stress or anger in families with different religious beliefs. A

female student aged 20 described her experience of physical and emotional maltreatment perpetrated by her father, due to different religious beliefs.

Despite this phenomenon not being commonly reported, it shows that different religious beliefs within one family might produce prolonged stress or anger, which might eventually contribute to child maltreatment.

- *My dad and I have different religious beliefs. My mum is a Christian. I would go to the church with her. But my dad was totally against it. Sometimes he got very angry and hit me for this. He did not allow different opinions. He threatened me by throwing things when I was in primary school. He also threatened “if you continue believing in it, I will not let you go to school again”. I was so scared of him. Since then, there has been a wall between us. I feel my dad treated me like a punching bag, and took all his anger out on me. He forced me to change my religion, which hurt me so badly. (Y7, university student, female, rural residence, 20 years old).*

Category 2 Perception of child maltreatment

(1) Focus on parents’ intentions

Young adults were generally reflective of their own maltreatment experience. Their perceptions of maltreatment experiences were focused on parents’ intentions and whether they did something wrong rather than the severity of parents’ behaviours or actual physical injuries caused.

If they thought they had made mistakes, over time they were able to understand their parents' good intentions and interpret their parents' behaviours positively. They saw that physical punishment and verbal aggression were a manifestation of parental 'tough love'. Harsh discipline was perceived by many university students and children to be effective in correcting their behaviours and beneficial for personal development.

- *If it was my mistake that made my mum hit me, I would let her. I would admit my mistake to her and promise not to do it again. (Y8, university student, male, urban residence, 22 years old)*

They were more likely to be able to identify irrationality when they did not deserve it and were also more aware of long-term harm caused by such experience. Those who felt harmed by their childhood experience expressed that they had the capacity to feel the pain, and therefore would consciously be resolved not to repeat the pattern with their own children in the future.

- *I have experienced all kinds of physical punishment, such as being hit with an implement, being kicked and being slapped on the face. I know it is very painful to experience these. The psychological harm caused by physical punishment and verbal aggression makes me think that I would not use them with my children in the future. I do not like this method of discipline. I think it will not solve problems, and may create more problems instead. But my parents were so busy that they did not have much time to communicate with me. I wish they could have talked to me in a nice way. I think discipline dominated by physically or emotionally violent acts is the worst form of discipline. When children make mistakes, parents should make time to communicate with them; parents should also set an example by their own conduct for their children because children can model parents' behaviours. I think verbal communication can solve problems very well. Why do parents have to choose violence? (Y8, university student, male, urban residence, 22 years old)*

(2) Perception of misbehaviours and mistakes causing maltreatment

Generally young people were more able to accept parents' violent discipline for safety issues, conduct and manner issues (e.g., lying, stealing, or disrespecting the elderly), but were less able to accept harsh discipline for poor academic performance. Many university students reported harsh discipline from parents due to poor academic performance, which had put them under great pressure.

Some students felt guilty or blamed themselves for not doing well in the exams or failing to meet parents' expectations.

- *I often had frequent nightmares before the exams at the time. In the dream, I was hit because I did not do well in exams... Since I have been through the experience of physical punishment and verbal aggression, I could understand how painful and difficult it can be. I think it is really necessary to ensure children have a happy childhood. If it is just a minor mistake, such as not wanting to do homework, I think parents can just talk to their children in a nice way. There is no need to use physical or verbal violent acts with them. (Y4, university student, male, rural residence, 21 years old)*
- *I always feel my parents have a very high expectation of me. I felt really guilty for not being able to go to a good university. They always wanted me to become a successful person in the future, and hoped that I could go to a good university. I had this feeling. They must have said this kind of thing. Otherwise, I would not have this idea in my mind. My parents also liked saying how amazing other children were. (Y7, university student, female, rural residence, 20 years old)*

(3) Perception of effects on parent-child relationship

Most university students said that they did not want to talk to parents afterwards, but when their negative feelings got better over time, they would become reconciled with their parents. They self-reported that harsh discipline had no influence on the parent-child relationship in the long term, but some expressed that they were still afraid of their parents even after growing up.

- *It is my mum that usually hit me. My dad only hit me once because I burned my sister's English book once. I do not think it has affected our relationship. I have always had a good relationship with my mum, because I always know she really cares about me. But I still fear her even now. If my mum had said I was not allowed to do something, I would be very worried when I decided to do it because there was a voice in my mind 'mum said I could not do this'. (Y5, university student, male, rural residence, 20 years old)*

Category 3 Perception of long-term harm from maltreatment

Five out of 11 university students in the interviews felt harmed by their childhood experience of maltreatment, when they perceived parental

behaviours to be unfair/unreasonable or hostile/aggressive, or perceived themselves to be unloved or unwanted. The five cases showed that maltreatment caused long-term harm to young people in various aspects, including unrecoverable physical injury, poor emotion control and aggressive tendencies, feelings of inferiority, low self-esteem, introverted personalities, and difficulty in forming relationships.

(1) Unrecoverable physical injury

A boy at university reported a long term unrecoverable physical injury caused by physical maltreatment during adolescence. This case also showed that parental aggression might increase following acts of defiance in children which in turn provoke a more aggressive response from parents.

- *My dad hit me once when I was in Grade 9, because I was caught truanting. My dad thought this was not something that a good child should do. He felt I had become a bad boy. I was in the stage of adolescent rebellion. So when my dad hit me, I fought back. In the end, I had a hand fracture. It is permanent physical injury. (Y8, university student, male, urban residence, 22 years old)*

(2) Poor emotion control and aggressive tendencies

Frequent and chronic emotional maltreatment, occurring in the context of mothers' poor emotion control, was perceived as very harmful. The university student who reported such experience described negative feelings in childhood, such as fear and unfairness. He perceived that his personality had been negatively affected by the experience (e.g., aggressive tendencies through modelling parents' behaviours).

- *Being scolded severely for no reason is awful and frightening. It occurred to me a lot when I was a child. My mum would become a totally different person at that time. I always felt she had got a bad temper and become aggressively easily. Her discipline was dominated by criticising and scolding. It has exerted a subtle influence on my character. As a result of long term exposure, I was taught that it is acceptable to vent the anger on one's family. I would model her behaviours. I got aggressive easily, especially with my own family. (Y10, university student, male, urban residence, 23 years old)*

Frequent physical and emotional maltreatment in the context of single motherhood, poor emotion control and psychological stress from work was perceived as very harmful. The university student who reported such experience felt betrayed and abandoned by the world and resented his parents throughout his teenage years. He described that all of his negative emotions in his childhood had not been well dealt with or had been ignored or repressed all the time, which had caused lingering negative impacts in adulthood (e.g., emotion regulation, aggressive tendencies).

- *I experienced all kinds of physical punishment... When I was in Grade 6, my mum threatened to abandon me. It was very hurtful. I really hated her for a while until I found out that she never stopped fighting with my dad for custody of me. ... I think my character has been affected. For example, if my friends said something bad about me behind my back, I would get furious. I think betrayal is unforgivable. When I get aggressive, I would behave like my parents, and think of how they hit me when they got angry. I would feel a burst of anger growing inside me. I have some sad dreams sometimes and when I wake up in the morning, I can feel the tears in my eyes. I can look at my experience from a positive perspective now, but I just feel it has left an indelible mark on my character. (Y8, university student, male, urban residence, 22 years old)*

(3) Psychological harm

Frequent maltreatment due to parents' great attention to academic success was perceived as very harmful by the university students who had such experiences. For instance, a university student aged 21 recalled his childhood experience of frequent maltreatment because of parents' high expectations and great focus on academic performance. He felt psychologically harmed by such experiences at the time: frequent nightmares and aggressive behaviours during adolescence. He described that the negative effects had persisted into early adulthood: difficulty in making a good relationship with superiors and lack of confidence.

Frequent maltreatment due to different religious beliefs within one family was perceived as very harmful to psychological health in the long-term. The girl who

reported such experience felt deeply psychologically harmed and linked her introverted personality to such experiences.

- *I was so scared of him. Since then, there has been a wall between us. I feel my dad treated me like a punching bag, and took all his anger out on me. He forced me to change my religion, which hurt me so badly. Sometimes I blame him. I think my personality is a bit introverted, because I grew up in such a family environment (Y7, university student, female, rural residence, 20 years old).*

Frequent emotional maltreatment in the context of inter-parental violence was perceived as very harmful. The girl who revealed such experience reported that she felt unloved and uncared-for by her parents during childhood and the negative impacts persisted beyond childhood into adulthood: withdrawal, inferiority, poor self-esteem, emotional insecurity, over self-protection, and difficulty forming peer relationships.

Category 4 Possible factors moderating harm from maltreatment

The results showed that harm from child maltreatment might be moderated by some factors in the Chinese context, such as the perception of parental good intentions, the perception of the Chinese punitive culture, parental warmth in daily life, or positive parent-child interaction after harsh discipline.

(1) Perception of parents' good intentions

Many university students self-reported no harm because they could understand parents' good intentions. This suggests that if participants perceived their parents' behaviours as being fair or reasonable, this could potentially moderate the harm caused by maltreatment.

- *There was no harm. Since very young, I had known that my parents blamed me or hit me for my own good. (Y6, university student, male, rural residence, 19 years old)*
- *My parents only used physical punishment (e.g., kneeling) when I made serious faults. It was reasonable. So I could understand their behaviours of this type. So*

my experience of physical punishment did not cause any influence on me. (Y10, university student, male, urban residence, 23 years old)

- *When I was in Grade 1, my mum hit me and criticised me very strongly because I stole money from home. Although I felt very upset, I knew I did something wrong. So her punishment just made me remember this thing for a long time, but did not cause harm to me. (Y7, university student, female, rural residence, 20 years old)*

(2) Perception of the Chinese punitive culture

The majority of university students thought that other children experienced more maltreatment than them or similar at the time, indicating the perception of the Chinese punitive culture. Many expressed that such comparison with peers made them feel that their own parents were actually much nicer. The findings suggest that the perception of the Chinese punitive culture might help children normalise their own experiences and then alleviate the negative effects of maltreatment.

(3) Parental warmth in daily life

Many university students reported no harm or harm mitigation, due to their perceptions of parental warmth. This shows that parental warmth in daily life might function as a buffer against the negative effects of child maltreatment.

- *I think all the physical or emotional punishment from my parents did not affect me. I could feel their love and concern in our daily communication. They gave me lots of love, much more than the punishment. (Y3, university student, female, rural residence, 21 years old)*

(4) Positive parent-child interaction after harsh discipline

As reported by some students, positive parent-child interaction after harsh discipline, such as comforting children and explain things to them, might help to alleviate harm from violent disciplinary acts.

- *Although my parents hit me, they still loved me very much. They would comfort me every time after hitting me, and tell me not to make the same mistakes again. (Y6, university student, male, rural residence, 19 years old)*

8.3.3 Children: Themes and Quotations

The analysis generated 10 themes which were grouped into three categories (Table 8-6).

Category 1 Overview of experiences of child maltreatment

All children in the interviews and focus groups reported having experienced some form of maltreatment at home.

Table 8-6 Categories and themes of the qualitative research with children

Category	Themes
1. Overview of experiences of child maltreatment	(1) Age of child maltreatment
	(2) Various forms of maltreatment
	(3) Various children's behaviours
2. Reaction to child maltreatment	(1) Negative feelings and behaviours
	(2) Self-criticism, normalisation, and internalisation
3. Perception of child maltreatment	(1) Focus on parents' intentions
	(2) Perception of misbehaviours and mistakes
	(3) Perception of effects on parent-child relationship
	(4) Perceptions of 'benefits'
	(5) Perception of the Chinese punitive culture

(1) Age of child maltreatment

Physical maltreatment was reported to have occurred less as they grew up and mainly took place in primary school.

(2) Various forms of maltreatment

There was a very wide range of punishments or disciplinary acts identified in China, which can be grouped into physical maltreatment, emotional maltreatment, and non-contact punishment (see Table 8-4). Some children reported having experienced severe forms of physical punishment that caused physical injuries (e.g., bleeding, bruises).

- *If I did something wrong, my dad was a bit unpredictable. If he was having a fight or*

quarrel with my mum, he would slap me on the face directly; he would punish me or hit me even when I made a tiny mistake or made him unhappy at the time. (C5, female, urban residence, 15 years old)

(3) Various children's behaviours

A variety of children's behaviours that caused maltreatment were reported by children and young people (see **Table 8-5**).

- *When I was younger, I was very afraid of sleeping in a dark room alone. My parents locked me in a wardrobe to help me correct this bad habit. As long as I did something wrong, they would lock me in there. The wardrobe was big enough. I was locked there in the evening for 10-15 minutes. I felt really scared especially when I touched the clothes in the wardrobe. (C14, female, urban residence, 11 years old)*

Category 2 Reaction to child maltreatment

Themes in this category indicated that children had very negative feelings and behaviours; many criticised themselves for their mistakes and internalised the values and attitudes of parents.

(1) Negative feelings and behaviours

All children described their immediate response to maltreatment perpetrated by parents as very negative, including becoming upset, feeling shame, embarrassment, guilty, frustration, sorrow, anger/resentment, wanting to fight back, wanting to leave home, fear of being hit again, and fear of their parents. Some said they would show embarrassment, shame, or interim compliance in order to avoid more punishment.

(2) Self-criticism, normalisation, and internalisation

Many children criticised themselves for their bad behaviour or mistakes, normalised their experience of maltreatment and internalised the values and attitudes of their parents. Over time this might also confer a risk for the

development of a negative self-image. For instance, some children perceived themselves as 'bad' or naughty children as a result of frequent harsh discipline.

- *My mum said I was not a good child in front of other people. She also said I was very lazy. I was really upset. I went back to my room and blamed her. My feelings got better over time. I started to think it was right for her to say that. If I were not lazy, she would not say that... Every time I had quarrels or fights with my brother because he always liked to touch my stuff and made them look messy. I remember once I hit my brother, my mum made me kneel without asking why. I felt she had been partial to my brother all the time. But now I think it is reasonable because my brother is the only boy in our family. (C3, female, rural residence, 12 years old)*
- *I am not a good child, because I have always been very naughty. I made mistakes all the time. Sometimes I disobey my parents. I have been criticised by both my teachers at school and my grandma at home all the time. (C8, male, urban residence, 15 years old)*

Category 3 Perception of child maltreatment

(1) Focus on parents' intentions

Children's perceptions of maltreatment experiences were focused on parents' intentions and whether they did something wrong rather than the severity of parents' behaviours or actual physical injuries caused. If they thought they had made mistakes, over time they were able to understand their parents' good intentions and interpret their parents' behaviours positively. They saw that physical punishment and verbal aggression were a manifestation of parental 'tough love'.

- *As I grew up (around Grade 3-4), I started to realise that she did it all because she loved me. (C10, male, urban residence, 11 years old)*

Some older children having been exposed to frequent maltreatment were also inclined to disapprove of violent parental discipline. However, younger children were more accepting of their parents' behaviours, including potentially injurious disciplinary acts, as they had gotten used to them. They were more likely to internalise the values endorsed by their parents.

- *If I were not lazy, she (mum) would not say that... I felt she had been partial to my brother all the time. But now I think it is reasonable because my brother is the only boy in our family (C3, female, rural residence, 12 years old)*
- *It is acceptable to hit on the bottom, twist ears, and slap on the face, because my mum has done them to me at home. I have gotten used to them. (C17, female, urban residence, 10 years old, FGD)*
- *I am OK with these two forms – ‘calling the child stupid or an idiot’ and ‘verbal threats of physical violence’. My mum often threatens to hurt me with sewing needles, but she has never done it to me. (C12, male, urban residence, 12 years old, FGD)*

(2) Perception of misbehaviours and mistakes

Generally, children were able to accept parents' violent discipline for safety issues, conduct and manner issues (e.g., lying, stealing, or disrespecting the elderly), but were less able to accept harsh discipline for sibling issues. For children having siblings, many expressed their feelings of annoyance, frustration or being upset when they were blamed or punished by parents due to quarrels or fights with younger siblings. They complained that parents always wanted to protect younger children in the family and punished them without figuring out what happened.

- *My sister always hits me for no reason. I would hit her gently, for instance, on the hand, and then she would keep scratching my hands very hard. It almost caused bleeding once, but my mum was still partial to my sister. Sometimes I would complain to my mum inside my heart. It was all because of my sister, but mum criticised me all the time. (C11, male, urban residence, 11 years old, FGD)*
- *My mum always criticised me because of my brother. My brother always liked to touch my stuff, and often broke them. That was why I did not want him to touch my stuff. Then my mum would criticise me for that, saying that I was not nice to him. Once I was playing with my brother, but I hurt his hand by accident. My mum started to criticise me. I was really upset about what she said to me. (C15, female, urban residence, 10 years old, FGD)*
- *I felt very upset. Every time I had quarrels or fights with my brother because he always liked to touch my stuff and made them look messy. I remember once I hit my brother, my mum made me kneel without asking why. I felt my mum was partial to my brother all the time. But now I think it was reasonable for her to be partial to*

the brother because he was the only boy in our family. (C3, female, rural residence, 12 years old)

Older children reported harsh discipline from parents due to poor academic performance, which had put them under intangible pressure.

- *Every time when I talk with my dad, our topic would always go back to my studies. As for my mum, if I was playing on the computer, she would say ‘why you are always so obsessed with the computer and why not go to do your homework instead’, and then she would tell me about how well the child of her friend had performed on the exam. Once I told them I felt I did well in the exam, and my rank was around 120 in the whole school. But my mum said ‘I did not know your class was so bad’. Then she started to attack me by giving derogatory or depreciating comments, which made me feel uncomfortable. My dad would do the same thing to me. I think these depreciating words are very harmful. My mum would often say these things, and compare me with my cousin. Honestly, I feel under pressure in both my life and studies. (C6, female, rural residence, 15 years old)*
- *Every time when they say “why is my child not able to do so well in the exams as your child”, I would feel so embarrassed that I just want to dig a hole and hide inside it. (C7, male, urban residence, 14 years old)*

(3) Perception of effects on parent-child relationship

Most children said that they did not want to talk to their parents afterwards, but when their negative feelings got better over time, they would become reconciled with their parents. There was one extreme case in which a female student aged 15 reported resentment towards parents: she described her frequent and chronic experience of inter-parental violence and multiple types of maltreatment including inter-parental violence. She felt hurt by her parents’ behaviours in early childhood. She spoke about her distant relationship with them, her resentment towards them and her thoughts of revenge later on. But she self-reported no harm caused to her, as over time she became emotionally numb.

(4) Perceptions of ‘benefits’

Harsh discipline was perceived by many children to be effective in correcting their behaviours and beneficial for personal development. For instance, a 14-year-old boy reported that harsh discipline had effectively corrected his 'naughty' behaviours, because he used to like playing outdoors with his classmates, but he did not like it that much now. He felt that he was very different now in terms of his personality.

- *I used to be very naughty. For example, I really liked playing outdoors with my classmates and would not go home until very late. Once I did not go home until the next day without telling them in advance. My parents punished me by making me kneel for around one or two hours. Now when I think about my experience of punishment, I think it is reasonable for my parents to do that. Otherwise, I would not be the person I am today... I think it was very effective for me. I feel I am very different from before in terms of personality and character. I feel I used to be very lively and cheerful (enjoying playing outdoors with classmates), but now I do not like playing outdoors that much. If my parents did not punish me that evening, I would probably do the same thing again. (C7, male, urban residence, 14 years old)*

(5) Perception of the Chinese punitive culture

The perception of the Chinese punitive culture might help children normalise their own experiences and then alleviate the negative effects of maltreatment. For instance, the majority of children thought that other children experienced more maltreatment than them or similar at the time. Many expressed that such comparison with peers made them feel that their own parents were actually much nicer. For instance, a primary school boy aged 11 experienced frequent non-contact punishment, such as being forced to hit himself on the hand, and standing facing the wall for a long time ranging from 20 minutes to four hours. But he described his experience:

- *I would blame them in my heart when I was younger. But after talking with my classmates about how their parents disciplined them, I started to feel my parents were actually very nice to me. Their parents would hit them, but my parents have never hit me. (C11, male, urban residence, 11 years old, FGD)*

Another boy aged 11 experienced severe physical punishment that caused bruises and bleeding. He said:

- *I think my mum is already very nice to me. Although she hit me when I was in Grade 1 or 2, and criticised or blamed me very strongly, she has been getting better since Grade 3, using less physical or emotional punishment. Compared with other children, I feel my mum is really nice to me. (C10, male, urban residence, 11 years old, FGD)*

8.3.4 Parents: Themes and Quotations

The interviews with parents were analysed separately. This generated six themes (Table 8-7).

Table 8-7 Themes of the qualitative research with parents

Themes
(1) Disciplinary purpose and low awareness of harm
(2) Parents' negative emotions in the immediate context of parent-child interaction
(3) Parents' reflections of their aggressive behaviours
(4) Parents' sensitivity and responsiveness to emotional needs of children
(5) The role of professionals
(6) Corporal punishment in schools

(1) Disciplinary purpose and low awareness of harm

Almost all parents reported some form of maltreatment towards their children, from spanking to more severe forms, such as slapping on the face or hitting with tools. Many parents punished their children because of study related issues. However, parents were also concerned about issues relating to children's safety, manners or conduct.

There were no obvious differences in the experiences and perceptions of punishing or mistreating children between parents and professionals. They justified their behaviours for the purpose of disciplining children. Most parents perceived physical punishment and verbal aggression as necessary in disciplining children and had a low awareness of the harm caused by these disciplinary acts. Only two urban parents said that they never used any form of

maltreatment with their children, as they had an awareness of negative effects of violent disciplinary methods on children.

- *My son used to be very naughty. I would hit or scold him, but I would tell him the reasons why he was punished. If he knew he did something wrong and why he got the punishment, it would not cause any harm to him. I think appropriate punishment is effective in disciplining children. We do not hit him very hard and only use some minor punishment. (P15, father, teacher, rural residence, 42 years old)*
- *I often hit my daughter. I do not know how to discipline her. If I do not hit her, she is always talking nonsense. (P21, father, doctor, rural residence, 38 years old)*

Many parents admitted physical maltreatment of younger children aged 3-7, because they felt children at this age were not able to understand right or wrong and had more difficulty in regulating their emotions or behaviours. They perceived no long-term harm as they always explained why the punishment occurred.

- *My daughter is 4 years old. I would slap her on the bottom if she does something wrong. (P14, mother, representative of the Women's Federation, 35 years old)*
- *My daughter is in preschool now. I would slap her on the bottom if she misbehaved or her teacher told me that she misbehaved at school, because I need to teach her the bad consequences of her mistakes. (P18, mother, teacher, urban residence, 30 years old)*
- *My daughter is 4 years old now. Sometimes she is really naughty. She does not listen if you just talk to her. She can only calm down when you use physical punishment. (P17, mother, teacher, rural residence, 29 years old)*

(2) Parents' negative emotions in the immediate context of parent-child interaction

The results show that it might be true that children's behaviours played a role in causing physical punishment or verbal aggression, for instance, unsatisfactory performance in school, playing near the river, or stealing money from parents. Maltreatment seemed more likely to occur in the immediate context of parent-child interaction when parents became irritated with children's behaviours and were less able to manage their negative emotions (e.g., anger). They attempted to physically and instrumentally control children, but lost control of themselves. In addition, child maltreatment might be the eventual consequence of an

escalating cycle of parent-child conflict. Parental aggression might increase following acts of defiance in children which in turn provoke a more aggressive response from parents – possibly in the name of discipline.

- *I often hit my son. Sometimes it is really hard to control my temper. I am not very patient and can become irritated easily sometimes. For instance, I felt wound up and easily lost my control when my son did not know how to do homework, especially when they were taught a few times. (P2, father, business man, rural residence, 39 years old)*
- *I would be more tolerant of my children's behaviours when I was in a good mood. I would not hit or criticise them no matter what they say. But when I felt upset sometimes, I would not be willing to answer their questions. If they continued asking, I would get angry with them. (P6, mother, unemployed, rural residence, 40 years old)*
- *I remember once when my son was 7 years old, I was tutoring other children at home. My son was walking around all the time. I felt so embarrassed. After other children left, I shouted at him, but he behaved as if he hadn't done anything right, which provoked my anger. Then I hit him on the hand with a ruler. (P19, mother, teacher, urban residence, 42 years old)*

(3) Parents' reflections of their aggressive behaviours

Overall, there seems no difference in the use of violent discipline among parents. Some parents simply perceived that parents would not punish their children if they did not make mistakes. In other words, children needed to be punished when they made mistakes. They equalled discipline with physical punishment and verbal aggression and were not aware of any other positive methods when interacting with their children.

However, some parents were more reflective of their aggressive behaviours with children. Through examining their feelings, they admitted using physical punishment or verbal aggression with their children because they became irritated easily with children's behaviours, especially when they were already under stress, and found it difficult to control their temper. They were able to realise that children's behaviours might not deserve such punishment, and expressed regret for taking the anger out on their children. They were also more willing to change their disciplinary methods.

- *My daughter was very naughty. I hit her once, when she was around 3 or 4 years old. She liked playing near the river. I told her not to do it because it was dangerous. But she did not listen. Then I hit her with an iron stick. Afterwards, I really regretted it. But at the time I was so angry with her behaviour, and my temper was totally out of control. I never used physical punishment with her again after that. (P1, father, farmer, rural residence, 44 years old)*
- *There was a period that I was under a lot of stress. I became irritated more easily. I would hit my sons if they irritated me. The situation got better afterwards because I was not that stressed. It is better not to hit them if I know how to manage my negative emotions. (P2, father, business man, rural residence, 39 years old)*

There was an extreme case in the interviews, which indicated severe harm of maltreatment on children's mental health. A mother reported that experiences of frequent non-reasonable physical punishment and verbal aggression from her husband had caused severe adverse effects on the personality and mental health of their son, such as feelings of being upset and nervous, withdrawal, anxiety, depression, aggression. However, the mother was only able to realise the inappropriateness of her husband's behaviours when severe harm had been caused to their son. In this case, apart from greater frequency and inappropriateness of the father's behaviours, there were other important factors which might have contributed to children's negative outcomes. As mentioned by the mother, the non-interference in the discipline, even in the context of severe punishment administered by one of the parents, might make children feel unloved or betrayed.

- *My husband hit our son even in some situations where it was totally unnecessary. He just wanted to show his authority to our son. I noticed our son was really upset one day. He told me his dad had asked him to die... He became a bit introverted, and was not willing to share his life and feelings with me. I took him to see a psychologist last year. The psychologist said he was a bit anxious and a bit obsessive...I regretted what happened to our son, but it was too late. He used to be such a very lively and cheerful boy. My husband and I had agreed that we would not interfere with each other in terms of discipline. So my son felt his mum did not love him any more when he was punished by his dad, because I did not stop his dad and sometimes I was also very harsh to him. He felt abandoned, and became*

a bit depressed. He got angry easily and became a bit aggressive. His character had been severely affected. (P3, mother, doctor, urban residence, 41 years old)

(4) Parents' sensitivity and responsiveness to emotional needs of children

Some parents, such as teachers and some urban parents with better educational backgrounds, were more sensitive to the emotional needs and mental health of their children and were more likely to engage in positive interactions with them after violent discipline. For instance, they would proactively read books or articles relating to child discipline shared on social media platforms. They were aware that physical punishment or verbal aggression might not be beneficial for the mental health of their children, although sometimes they found it difficult to control their negative emotions or felt verbal discipline was not effective enough to correct children's undesirable behaviours. However, they would comfort their children and explain things to them after violent discipline. Often when one parent used harsh discipline with children, the other parent would take the responsibility of comforting children afterwards. These parents were also more likely to reflect on and to improve their disciplinary methods in the future.

- *We would not hit him very hard. Verbal aggression might be more harmful. For instance, once my son went to play with his toy blocks. He made some mistakes. Then my wife started nagging and criticising him all the time. He felt really nervous. He seemed really unhappy afterwards. When I asked what happened, he started crying. He said he was so scared of his mum. My wife then realised that she was a bit harsh. I started comforting him, and told him 'mum said these things because she wanted you to be good'. (P10, father, lecturer in a local university, urban residence, 36 years old)*
- *I know it is not good to hit or criticise her. I read some books on child discipline, and I think it does make sense when they say there are alternative ways of disciplining children besides physical punishment. But I feel sometimes it is really hard to control my own temper. If I realised it was my problem instead of her behaviours that had caused punishment, I would talk to her and apologise to her afterwards. (P8, mother, lecturer in a local university, urban residence, 36 years old)*

(5) The role of professionals

Many professionals, including teachers, doctors or representatives of the Women's Federation, reported they had witnessed other parents or carers using severe physical maltreatment with children. In most situations, no actions were taken by professionals apart from verbal communication. They disapproved of severe physical punishment, but perceived it as understandable in order to discipline children, and did not relate such behaviours to child maltreatment. More importantly, they are not willing to intervene in other families' business.

- *I've seen a parent slapping the child on the face in the clinic. She was very angry. I do not think it is child maltreatment. I remember it happened in the emergency clinic. After seeing this, I said "how could you be so aggressive?", but I did not think it was abuse. The child was sick, and the mother was worried and annoyed. She might also use physical punishment at home. I was surprised, and said to her "how could you hit the child like this?" The mother said "I am so angry with him". To me she just had a bad temper. She still cared a lot about the child, but she was using the wrong method. (P12, mother, paediatrician, urban residence, 37 years old)*

Almost all teachers reported witnessing a few cases of severe physical punishment in their class. They said they would attempt to communicate with parents, educate them on the inappropriateness of violent acts, and encourage them to use positive discipline methods. In addition, many teachers reported that parents of their students would turn to them for information or advice on disciplining children.

- *I remember once I was talking to a dad, saying that his boy did not behave very well at school. The dad instantly got very angry. He took the child out of the class, and started hitting them. He has two children, and has been very strict with both of them. He is a long-distance lorry driver, and is always very busy. I was trying to stop him at the time, and encouraged him to use verbal discipline. But I feel there is nothing else I can do sometimes. (P18, mother, teacher, urban residence, 30 years old)*

Only in one extreme case reported by a teacher, the child was severely injured by his grandfather from his father's side (limping to school with clear bar-shaped red marks on the skin), and the local residential committee got involved. His parents had gotten divorced, and he had been living with his grandfather. The

grandfather did not know how to communicate with the boy, and often used physical punishment with him. The boy was removed to live with his grandparents from his mother's side temporarily and representatives of the local residential committee warned him not to do it again.

(6) Corporal punishment in schools

Two teachers in rural areas in the interviews reported their use of corporal punishment with students in schools despite the fact that they knew it was illegal, such as twisting ears, hitting with an implement, or other forms that caused physical injury (e.g., pressing the back of the head, or pushing strongly). The main reasons reported by teachers were students being too naughty, students making mistakes, verbal discipline being ineffective, and physical punishment being able to improve students' academic performance.

8.4 Summary of Chapter 8

The qualitative study indicates the pervasiveness of child maltreatment in China. It also shows that children's undesirable behaviours may play a role in causing their own maltreatment, but frequent and severe maltreatment of children seems more likely to occur as a result of a transactional process involving characteristics of parents and family, and social context they are embedded in. Children's and young adults' perceptions of maltreatment experiences were focused on parents' intentions. The harm from maltreatment was reported to have been moderated by the perception of parental good intentions and parental warmth, as well as an understanding of the Chinese punitive culture. Despite that, the qualitative study shows negative effects in children and young adults. Most parents perceived physical punishment and verbal aggression as necessary in disciplining children. Some parents were more reflective of their aggressive behaviours towards children and were more willing to change their disciplinary methods. Some parents were more sensitive and responsive to the emotional needs or mental health of their children. There were no obvious differences in the experiences of punishing or mistreating children between general parents and professionals.

CHAPTER 9 DISCUSSION

This chapter draws together all key findings and discusses them in both a national and international context, while demonstrating how this research has made original contributions to knowledge and theory within the field. Strengths and limitations of the research are also discussed. Then implications for future research, policy and practice are provided.

9.1 Key Research Findings

9.1.1 High levels of child maltreatment

Maltreatment by parents. Against the background of rapid socio-economic change in China and increasing exposure to cultural values from other parts of the world, high levels of child maltreatment (including physical, emotional and non-contact) perpetrated by parents were readily and consistently reported by all of the three populations – young adults, parents and children, in both the quantitative and qualitative study, indicating the normalisation of child maltreatment in China. The rates are higher than international estimates.⁷ Especially striking is the finding that almost a fifth of parents admitted to moderate or severe maltreatment of their children and over half to emotional maltreatment. Severe forms of physical punishment, such as severely beating, choking, and threatening with a knife, are not rare. These extreme forms go far beyond acts which would be regarded as justifiable in any setting as a form of parental discipline. As indicated by the literature review, there were wide discrepancies in the prevalence rates of child maltreatment in China due to variations in underlying definitions: 0.1% - 77.7% for physical maltreatment and 6.3% - 80.3% for emotional maltreatment.^{91,114,133,155} The rates reported in this research are similar to the highest figures in the literature review.

Explanations for high rates. There may be several common explanations for high rates of maltreatment by parents: first, a series of specific disciplinary acts

were asked about, rather than broad and sensitive terms, such as 'violence', 'abuse' or 'maltreatment'. In China specifically, there is a low awareness of 'abuse'; most people would not relate it to their personal experiences. In addition, it has been suggested that prevalence rates could increase with the greater number of questions or specific items relating to maltreatment, as it prompts recall.²¹⁶ For instance, in my research, I included 38 disciplinary acts, of different types and severity, in both parents' and children's questionnaires. Secondly, high rates of child maltreatment by parents could be explained by the traditional cultural values and child-rearing beliefs in China. Children are expected to be obedient and respectful towards their parents, and parents are expected to be responsible for disciplining and teaching their children.¹⁸⁻²² Children would be regarded as 'impious' or 'disobedient' when they fail to comply with their parents' instructions or fail to meet their parents' expectations. In these situations, physical punishment and verbal aggression are widely utilised as a form of discipline, regarded as 'necessary' for raising children.

Maltreatment by other perpetrators. The questionnaire survey with young adults also allows me to explore child maltreatment from various perpetrators including teachers, peers and grandparents, despite the fact that these were not the primary focus of the research. The research showed that over 90% of the young adults reported some form of maltreatment perpetrated by any type of perpetrator (including parents, teachers, peers, siblings and grandparents) before the age of 18. The figure is much higher than the global prevalence (a minimum of 50%) estimated by a systematic review of data from 96 countries.⁴ Male students reported significantly more physical maltreatment than females, but there was no significant gender difference for emotional maltreatment. Childhood maltreatment was common in all socio-demographic groups, irrespective of urban/rural residence, economic status, and parental education.

The research also showed considerable maltreatment perpetrated by teachers in schools, despite it being officially banned by law (China Ministry of Education, 1986), similar to other studies in mainland China.¹⁶³ This is perhaps of particular concern given that in many countries teachers play a role in identifying child abuse or maltreatment in families and protecting children from potential harm.

Only a few studies have specifically examined academic and non-academic outcomes associated with corporal punishment in school. Young Lives and the UNICEF longitudinal study across four countries, including Ethiopia, India, Peru, and Vietnam, revealed that corporal punishment in schools was linked with lower test scores and poorer psychosocial well-being.³⁰¹ Research in China also indicated that there were high levels of behaviour problems and stress/psychosomatic symptoms among children due to high expectations in a very competitive educational environment.^{302,303} Chinese teachers should be given more guidance on appropriate methods to manage students' behaviours.

This research also showed that maltreatment perpetrated by peers is not uncommon, as well as violence committed by siblings and grandparents, which is often ignored in such research. Peer maltreatment, generally referred to as bullying, has been shown to have long-term adverse effects on young adults' mental health (e.g., anxiety, depression and self-harm), more so than children who were mistreated by their parents or carers.³⁰⁴ Empirical evidence on how peer maltreatment affects the psychological well-being of students in a Chinese cultural context remains limited. But a study conducted among 1,376 Taiwanese middle school students found that bullying by students was positively associated with depression.³⁰⁵

The questionnaire survey with children provides information on the prevalence of witnessing domestic violence, although this is not the particular emphasis of this research. Almost half of the children reported witnessing domestic violence. Witnessing domestic violence is increasingly regarded as a form of child maltreatment in its own right in Western countries. However, this issue has not been identified in mainland China. The new Anti-Domestic Violence Law (2016) specifies legal protection for some severe forms of physical maltreatment and frequent emotional maltreatment, but fails to mention other types of maltreatment such as witnessing domestic violence. In addition, there is a paucity of research on this issue in mainland China, but many studies from Western countries, Hong Kong and Taiwan have shown that domestic violence increases the risk of maltreatment of children and that occurrence of witnessing

domestic violence and physical maltreatment had a greater negative effect on self-esteem and behaviours in children and young adults.^{6,50,52-54,131,146,209,247}

Reports among three different sources. This research illustrates the importance of obtaining data from multiple information sources in assessing parent-to-child maltreatment in research and provides information on the reliability and validity of reports of each source. As indicated by the literature review, almost all of the available studies in mainland China rely exclusively on the reports of a single informant, and there is very limited information on the reliability and validity of the assessment of child maltreatment.

Generally, high levels of child maltreatment were readily reported by the three populations – young adults, children and parents, in the questionnaire surveys. As indicated by the qualitative research, young adults talked more readily and openly about their experiences. This lends support to the previous argument that young adults might be a reliable source of information in terms of research into child maltreatment, because their recollections are relatively recent and they tend to be more willing to participate in research on sensitive matters.²¹⁸ But there is a clear potential for recall bias, because many young adults did not remember events in their early childhood.

In the quantitative study, parent-child pairs within the same household were matched to compare parent and child reports of parent-to-child maltreatment. The quantitative findings showed the relatively lower figures in children, which may relate to recall bias, concerns for family privacy, different perceptions of the same acts, or acceptance of acts of maltreatment as normal. The qualitative research also adds insights into the reliability and validity of child reports. Overall, all children in the interviews and focus groups were willing to share their experiences. But some of them showed concerns for family privacy, which might lead to under-reporting. For instance, some children in the interviews were observed to glance at the recorder and to show hesitancy in responding; some children in the focus groups mentioned ‘the recorder’ and ‘privacy’ a few times. These children were provided with reassurance that what they said would

be confidential and anonymous. After confidentiality and anonymity were reassured, and as they engaged themselves in the discussion process and built a trust with researchers, they were gradually paying less attention to these issues.

Parents readily admitted to maltreating their children, including severe forms, unlike previous research in other countries which suggests that parents who used violence against their children were likely to under-report or refuse to disclose such experiences, due to shame, fear of future legal consequences, or social desirability in parents.^{52,217} Most parents in the interviews were willing to share their experiences of disciplining children, but some of them were concerned about the recorder and family privacy in the beginning. It seemed to alleviate their worries after confidentiality and anonymity were reassured. For instance, some parents said that they did not hit their children in the beginning of the interviews. However, as they talked more, they started mentioning their use of physical punishment and verbal aggression with children. Despite this, there might be potential for under-reporting due to concerns for family privacy. Parents might also have a tendency to downplay the severity of violent behaviours against their children when they were recalling their experiences, as indicated by previous research.²¹⁹

9.1.2 Socio-demographic associations with parent-to-child maltreatment

Parents' age and gender were examined in this research. This research indicated that younger parents (<40 years) were more likely to use emotional maltreatment than older parents (>46 years). Interestingly, most of the previous research in both China and other settings has shown that mothers are more likely to abuse their children,^{23,99,114,138,156,221} because mothers are the primary caregivers of children and spend more time with their children. However, no parent-gender differences were found for any form of maltreatment in this research.

Child gender and age were shown to be two factors affecting parent-to-child maltreatment. The results of gender differences in the occurrence of parent-to-

child maltreatment were inconsistent among reports of three populations. The questionnaire survey of young adults showed there was no significant gender difference for physical maltreatment, but females reported more emotional maltreatment. This may be for several reasons. Firstly, boys are more valued by parents in Chinese families.²³¹ Secondly, girls are more vulnerable to parental criticism and hostility, which could lead to higher reports.²³² However, results from parents and children showed that there was no significant gender difference for emotional maltreatment, but boys were at a higher risk of physical maltreatment. There are some commonly cited explanations: first, boys are more likely to exhibit externalising behaviours;^{228,229} second, Chinese parents may have higher expectations of boys. Also society may more readily condone the use of physical discipline for boys, because of assumptions that they are stronger than girls. The inconsistency of findings from different populations might reflect the changing trend of child maltreatment over time due to greater gender equality, which has been driven by the one-child policy and socio-economic development. It might also be due to methodological issues, such as sampling strategy and measurement of child maltreatment. Both parents' and children's questionnaire included 38 specific disciplinary acts, while young adults' questionnaire only included 14 questions in relation to maltreatment. An important consideration was that young people might have difficulties in recalling very specific acts in childhood. Therefore, some specific items were combined into one question. For instance, there were many different forms of hitting in the parents' and children's questionnaire, such as hitting on the hand, hitting on the leg or arm, and punching. But there is only one question in relation to hitting in the young adults' questionnaire.

This research provides useful information on the age distribution of parent-to-child maltreatment, which has not been examined much in mainland China. The questionnaire survey with young adults showed that physical maltreatment was reported least frequently in the under-five age group and was highest in the 5-9 and 10-13 age groups. Studies in China, and elsewhere, find physical punishment more common in the under-fives,^{114,229} probably because their perceived cognitive immaturity means that physical discipline is regarded as necessary to teach them what is wrong and what is dangerous.²³³ It is also

possible that younger children spend more time with parents and are more dependent on them, or they have more difficulty in regulating their emotions, which may increase the chances of evoking hostile behaviour from parents.⁶³ A possible explanation for our finding is recall bias, that is, our young adults did not recall events in early childhood. This research also found that these students reported less physical maltreatment during their late adolescence (14-17 years), in line with previous research.¹⁵⁶ Clearly by this age other measures, such as grounding and withdrawal of privileges are likely to be more effective.²⁴⁶ Older children may simply resent physical punishment at a time when they are developing their own autonomy and indeed may simply fight back.²³³ Emotional maltreatment was generally common across age groups from 6-17 years. This is in line with previous research conducted in China and the US, indicating emotional maltreatment is a widely used disciplinary tactic.^{114,306} However unlike these two studies, this study showed that less emotional maltreatment was reported in the under-five age group, possibly due to recall bias.

This research also explored several family and community-level factors, such as parents' education, family economic status, family size and family structure. Overall, this research showed that physical maltreatment appears to be common across Chinese society, regardless of urban/rural residence, parental education, and family income. This contrasts with many other settings where factors such as poverty and low educational levels, are strongly associated with child maltreatment.⁶ But the research showed that emotional maltreatment was consistently and positively associated with rural residence and low economic status, possibly due to differences of neighbourhood characteristics between urban and rural areas, and high levels of stress which may arise from family poverty.^{47,86} This research also showed that socio-demographic associations might differ with the severity of physical maltreatment. The questionnaire survey with children showed that severe physical maltreatment was positively associated with a remarried family structure and low economic status. This can be explained by high levels of stress and low social support associated with poverty, which may push parents to use violence with their children.^{86,307} It is also possible that parents of this family type tend to have lower quality caregiving environments.³⁰⁷

9.1.3 Role of parental aggression and childhood experience of maltreatment

This research showed that high parental aggression scores, measured by Bryant and Smith's (2001) short Aggression Questionnaire, were positively associated with all types of child maltreatment (including physical, emotional and non-contact), irrespective of parental history of childhood maltreatment. While the positive association has been shown in a few Western studies for severe physical maltreatment,⁴⁹ this study provides evidence for physical maltreatment of different severities and other types of maltreatment such as emotional maltreatment and non-contact punishment. This is also the first time that this has been observed in China and that this has been examined in a large population. No studies have examined the relationship between parents' tendency towards aggression and child maltreatment in China.

This thesis provides evidence to support the intergenerational transmission of maltreatment.^{270,271} The results show that the intergenerational transmission of maltreatment differed with severity and type. Firstly, no evidence was found for the intergenerational transmission of minor physical maltreatment and non-contact punishment. This contrasts with previous findings reported by Chinese studies.^{112,113} Secondly, parental childhood maltreatment was significantly associated with a higher risk of moderate/severe maltreatment and emotional maltreatment of children.

The result shows that 85.8% of parents who had a history of maltreatment in childhood subjected their children to maltreatment. This is higher than the range of 17%-72% indicated by both Western and other Chinese studies.^{113,274,308}

There could be methodological reasons for this difference, for example, differing definitions for maltreatment, and different sample characteristics. Importantly, I included 38 disciplinary acts of varying type and severity, which may lead to higher estimates of maltreatment as it prompts recall.²¹⁶ In contrast, Wang and Xing (2014) used only six items drawn from CTSPC.⁷⁴ However the very high

figure of 85.8% in this study does indicate the persistence of a punitive culture in China.

This research casts light on the relationship between these three variables: maltreatment of children, aggressive tendencies in parents and parental childhood maltreatment. Firstly, parental childhood maltreatment was significantly associated with a higher risk of moderate/severe physical maltreatment of children, and parental aggression was an explanatory factor of this association. Specifically, parental exposure to maltreatment during childhood is positively associated with aggressive tendencies in adulthood, which in turn is associated with maltreatment of children. This supports the findings of Simons *et al.* (1991) who provided evidence that harsh parenting of one generation may be transmitted indirectly through influencing the personality of the next generation.⁶⁶ Berlin *et al.* (2011) also found that the positive association between maternal childhood physical maltreatment and maltreatment of children could be mediated by mothers' aggressive tendencies.³⁰⁸ Childhood maltreatment predicting aggressive tendencies in adulthood is also supported by some mainland Chinese studies,¹⁹² but this study explored, for the first time, the role of parental aggression in the intergenerational transmission of maltreatment.

Secondly, parental childhood maltreatment was positively associated with emotional maltreatment of children. This was partly explained by parental aggression. This is of interest because most research has tended to focus on physical maltreatment. Two studies on a combination of verbal and physical harsh discipline lend support to the finding of the intergenerational transmission of emotional maltreatment.^{66,309} They found that harsh parenting, including shouting, demonstrated continuity from generation to generation. Unlike physical maltreatment, this study shows that intergenerational transmission of emotional maltreatment was only partly explained by the pathway of parental aggression. There may be other underlying mechanisms, for example, the social learning theory.⁶⁷ Biological or familial factors may also underlie the intergenerational maltreatment according to genetic studies on criminality and

delinquency.^{310,311} However, these factors were not examined in this study. More research is needed to understand the underlying mechanisms, involving biological, family or social context factors.

9.1.4 Effects of different types of child maltreatment

Consistent evidence from Western countries and China have demonstrated the substantial negative effects of child maltreatment on the mental and physical health and well-being of children throughout their lives.^{6,173,179,232,277-281} This study confirms previous research findings of an association between maltreatment exposures and child emotional and behavioural problems. Importantly, this study throws light on the individual effects of each type of exposure. Firstly, it shows emotional maltreatment was strongly and consistently associated with increased risk of emotional and behavioural problems, irrespective of other maltreatment exposures. This supports previous findings that emotional maltreatment was associated with an increase in child behavioural problems and depressive symptoms after controlling for physical maltreatment.³¹²

Secondly, this study reveals that severe physical maltreatment had the strongest association with abnormal conduct. This contrasts with previous findings of a lesser effect of physical maltreatment on behavioural problems.^{232,313} It also found that the negative effects of severe physical maltreatment on abnormal emotional symptoms were largely explained by the co-occurrence of emotional maltreatment. Previous studies have shown that emotional maltreatment was the most significant predictor of psychological symptoms, including anxiety and depression,^{179,232,314,315} and some studies found severe physical maltreatment had no significant effects on child anxiety or other psychological outcomes.^{179,314} A possible explanation, proposed by McGee *et al.* (1997), is that maltreated children internalise emotional maltreatment from parents, thus causing low self-esteem in children and leading to mental health problems such as depression.²³²

Thirdly, moderate (but not minor) physical maltreatment was independently associated with abnormal emotional symptoms. Conclusions from existing research are mixed with some research showing no negative consequences of mild to moderate maltreatment, especially if it occurs in the context of a loving, caring relationship, or where an explanation is provided.^{246,316} For instance, Lansford *et al.* (2014) and Gershoff *et al.* (2010) showed that parental warmth and perceived 'normalisation' of violent discipline may have moderating effects on the emotional and behavioural harm.^{194,208} The finding of minor physical maltreatment seems to support this argument. However, it is also worth noting that our study showed a prevalence of 5.6% for minor physical maltreatment (37.7% for total). In other words, we showed that in the Chinese setting, only a small proportion of parents would merely use minor forms. In most situations, minor physical punishment co-occurs with more severe forms. There is an important need to teach parents about the harm caused by moderate and severe physical maltreatment, as indicated by this study.

Fourthly, the results show exposure to domestic violence alone was not associated with abnormal emotions and behaviours in children, but it independently predicted borderline emotional symptoms for girls and borderline conduct problems for boys. Evidence has been mixed on the effects of witnessing domestic violence. For instance, O'Keefe (1996) reported significant negative impacts, but Moylan *et al.* (2010) reported no effect.^{285,288}

The finding of accumulating risk for emotional and behavioural problems with the number of types of maltreatment has significant public health importance, considering the magnitude of the effects. Clearly, highest priority should be given to identifying children who suffer multiple types of maltreatment.

This study points to child sex differences in the impact of maltreatment. It demonstrates that the effect size of emotional maltreatment was greater for girls, in line with McGee *et al.*'s (1997) study of Canadian 11-17 years olds which showed that girls are more vulnerable to parental criticism and hostility.²³² Hoffman *et al.* (1997) also suggested that girls may be more affected by signs

of affection or rejection from others.³¹⁷ The results also show greater effects of physical maltreatment and non-contact punishment among boys than among girls, consistent with McGee *et al.*'s study which suggests physical maltreatment predicted behavioural problems among boys but not girls.²³² However, two Chinese studies of children found physical maltreatment strongly predicted behavioural problems in girls.^{120,126}

9.1.5 Young adults' perceptions of childhood experiences of maltreatment

This is explored in both the quantitative and qualitative research, which both add useful insights into the perceptions of child maltreatment in China. The quantitative and qualitative findings are integrated and discussed below.

Perceptions of causes. The qualitative research with young people provides detailed accounts of behaviours, which is necessary for disentangling the causes of abusive behaviour patterns and for the design of effective intervention programs targeting at those behaviours. It also enables the researcher to move beyond the mere identification of individual variables, to an exploration of the interactions between variables both within and between different levels (e.g., characteristics of parents and children, family and community-related factors, social context and cultural beliefs). The results show that children's undesirable behaviours in the immediate context may play a role in causing their own maltreatment. However, frequent and severe maltreatment of children seems more likely to occur as a result of a transactional process involving characteristics of parents and family, community and the social context they are embedded in. Firstly, the qualitative research sheds light on the larger social context in which the individual, the family, and the community are inextricably interwoven. Most research on this level has focused on society's approval of physical punishment for the purpose of disciplining children, which is also supported by this research, which indicates that all university students in the interviews reported having experienced some form of maltreatment at home. More importantly, this research shows that in the Chinese context, parents have high expectations of their children and pay great attention to their children's

academic performance, which is an important factor in the aetiology of child maltreatment.

Secondly, within the larger social context, not every parent perpetrated severe or frequent maltreatment of children. Additional contributors to child maltreatment exist within the family and the environment, such as single motherhood, stressful work environments, rural-to-urban migration, parents with low educational backgrounds and from rural areas. This evidence lends support to the argument that social and economic disadvantages producing stress and frustration are important factors in explaining parental maltreatment of children.⁴⁴ In addition, frequent disputes between parents might also increase the risk of child maltreatment. This provides evidence to support the ecological point of view – what happens between husbands and wives has implications for what happens between parents and their children.³⁹ A possible explanation is that parents who are dissatisfied with their marriage or have frequent disputes with their spouse may be in a state of negative emotions which can diminish their parenting capacity.²²⁷ They transferred their dissatisfaction and anger towards their spouse onto their children. It is worth mentioning that different religious beliefs between fathers and children was also shown to be a contributor to frequent maltreatment of children. This issue has not been explored much in previous research, but there is some evidence showing that child maltreatment was more likely to occur when women entered into marriage with men of different religions.⁴⁴

Thirdly, this research shows that beyond socioeconomic stress, poor emotional control in parents, possibly rooted in their early childhood experiences, is perceived by young people as a risk factor for maltreatment perpetrated by parents. This lends support to the models emphasising psychological disturbance in parents.³⁴ It should be considered of prime importance because it helps to explain why not every parent in the socially and economically deprived families engaged in severe physical maltreatment and why parents in the families without social or economic stresses still mistreated their children. They

allow aggressive impulses to be expressed too freely towards their children, which can be escalated during times of additional stress and tension.

Perceptions of parental maltreatment. Both the quantitative and qualitative findings indicated that there was a perceived 'normalisation' of physical and emotional maltreatment of children in China, as the majority of children felt that they experienced less than peers, or about the same. The quantitative study also showed that there was a high acceptance of physical maltreatment among young people with such experience, because the majority perceived it as reasonable and justified. This issue is further explored in the qualitative research which indicated that their perceptions of maltreatment tend to focus on parents' intentions rather than the severity of parents' behaviours or actual physical injuries caused. Young people in the interviews regarded physical punishment or verbal aggression as well-intentioned and an expression of parental 'tough love'. They tend to think it is reasonable and legitimate for parents to punish them physically if they behave badly. These results are consistent with previous studies.^{24,295}

This research indicates that young adults were generally more reflective of their own maltreatment experience, as they were able to identify the irrationality when they did not deserve it and were also more aware of long-term harm caused by such experience. Interestingly, they also expressed that they had the capacity to feel the pain and that they would consciously be resolved not to repeat the pattern with their own children in the future. As proposed by previous researchers, parents who remember their own negative experiences in childhood, and have formed coherent accounts of them, are not likely to maltreat their children.^{318,319} While both previous research and this research suggest that parental personal experience of childhood maltreatment is a strong predictor of maltreatment of their children,^{270,271} this finding indicates that the awareness of harm might be an important mediating factor that affected the likelihood of maltreatment being transmitted to successive generations, as indicated by previous studies.^{274,275,320}

Perceptions of harm. Both the quantitative and qualitative research showed that many university students felt harmed by their experiences of maltreatment. Many university students in the interviews self-reported that the experience of frequent maltreatment, regardless of its disciplinary purpose, was very harmful, because they perceived parental behaviours to be unfair or unreasonable, or perceived themselves to be unloved or unwanted. The questionnaire survey with young adults asked about their perceptions of harm caused by different acts, but the nature of the harm was not defined. However, this is compensated by the qualitative research. Maltreatment, occurring in the context of a hostile or aggressive environment, has caused long-term harm to young people in various aspects, including physical injury, aggressive tendencies, feelings of inferiority, low self-esteem, introverted personalities, difficulty in forming relationships, emotional and conduct problems.

The quantitative research with young people showed that experience of emotional maltreatment was perceived as more harmful and less acceptable than physical. Emotional maltreatment may have more destructive effects on children than other forms, as has been observed elsewhere.^{179,232,313-315,321} It is also supported by my quantitative research with children which reveals that emotional maltreatment was strongly and consistently associated with an increased risk of emotional and behavioural problems in children, irrespective of other maltreatment exposures. However, this issue has generally received less attention than other forms of maltreatment, even in high-income countries.^{6,322} Given the high prevalence of emotional maltreatment in China, the long-term effects need to be explored further.

Harm moderated by perceptions. The qualitative study provides some evidence on the factors that might partly moderate negative effects of child maltreatment on children and young adults in the Chinese context, such as the perception of parental good intentions, the perception of the Chinese punitive culture, parental warmth in daily life, or positive parent-child interactions after harsh discipline. This extends the breadth of the research, as this issue was not examined in the quantitative research. This evidence is of particular importance because it adds to a better understanding of protective factors which helps to

explain why some maltreated children did not develop negative outcomes, as proposed in the ecological-transactional model of child maltreatment.⁴¹ The findings are consistent with previous research which showed that child maltreatment was less strongly associated with adverse child outcomes in the context of parental warmth, or in conditions of greater perceived 'normalisation' of harsh discipline by children.^{194,207,208,214,323,324} This could be explained by Rohner's (1986) parental acceptance-rejection theory.³²⁵ It is widely believed that children everywhere need acceptance (love) from parents and other attachment figures. Rohner *et al.* (2005) suggested that children who perceived themselves to be loved appeared to be less likely to develop behaviour problems, depression, substance abuse, and other mental health-related issues.²⁹⁸ This is also supported by Grusec & Goodnow's (1994) theoretical framework which proposed that if children perceived their parents' behaviours as reasonable or well-intentioned, children may not feel rejected when harshly disciplined.³²⁶ Instead, they may internalise the values and behaviours endorsed by their parents, and show less long-term harm.³²⁶

9.1.6 Children's perceptions of childhood experiences of maltreatment

Some qualitative findings from children are similar to those from young people, such as perceptions of parental love and 'normalisation' maltreatment of children in China. However, unlike older children and young adults who were more reflective of their own maltreatment experiences, younger children were generally more accepting of their parents' behaviours, including potentially injurious disciplinary acts, and were more likely to internalise the values endorsed by their parents. Links between age difference and perceptions might be related to children's changing cognitive abilities and maturity levels.³²⁶ Previous researchers proposed that with increasing age, a child should be better able to recognise the intention behind a parent's behaviour and to respond to that intention, as well as to recognise departures from a parent's usual style as exceptions.³²⁶

Most children in the qualitative study perceived no harm from maltreatment, possibly because they were more accepting of their parents' behaviours and

perceived physical punishment and verbal aggression as a manifestation of parental tough love. They were not able to recognise departures from a parent's usual style as exceptions and to recognise negative effects caused to them, such as changes of personality and the development of a negative self-image. Another explanation is children's perceptions of the Chinese punitive culture. For instance, some children, even those that experienced severe forms of punishment (e.g., being hit with a tool, being slapped on the face, or being forced to stand for hours), expressed that peers' experiences made them feel that their own parents were actually much nicer. However, while even children themselves reported no harm, it does not mean that no harm was caused by maltreatment. In fact, many children criticised themselves for 'bad' behaviours and perceived themselves as 'bad' children as a result of frequent physical punishment or verbal aggression. This is of particular concern because a negative view of the self might contribute to maladaptive psychological symptoms.^{314,327,328}

9.1.7 Parents' perceptions of experiences of disciplining/punishing children

There is a lack of research to understand child maltreatment in mainland China from a qualitative perspective of parents. This study adds useful insights into parents' experiences and perceptions of disciplining or punishing children, which has important policy implications for child protection interventions.

Firstly, the qualitative research showed that almost all parents reported some form of maltreatment towards their children. They perceived physical punishment or verbal aggression as necessary in disciplining children. Some parents simply believed that if children themselves did not make mistakes, parents would not hit them. This may reflect underlying cultural child-rearing beliefs in the Chinese society that have fostered the maltreatment of children. Parents should be taught about how to discipline children in a non-violent way. They should also be educated about the negative effects of child maltreatment. If there was a greater awareness of the harm caused to children, this might deter parents from using physical punishment or verbal aggression. For instance, as indicated by this study, two parents never used violent discipline

with their children as they were aware of its negative effects.

Secondly, consistent with previous research and the qualitative research with young adults,^{38,39,329} this research indicates that maltreatment seemed more likely to occur in the immediate context of parent-child interaction when parents became irritated with children's behaviours and were less able to manage their negative emotions (e.g., anger). They became so angry as to lose control of themselves and exaggerated what was intended as a form of discipline. This finding indicates that if parents can be taught how to interact with children in a positive way, or how to manage their negative emotions such as anger, this might lead to a reduction of child maltreatment.

Thirdly, this research shows that overall there seems no difference in the use of violent discipline among parents. But more importantly, it indicates that some parents might be more reflective of their aggressive behaviours. First of all, several parents expressed regret for taking their anger out on their children and were able to realise that children's behaviours might not deserve physical punishment and verbal aggression. These parents were also more willing to change their disciplinary methods. This finding delivers an important message – if interventions incorporating anger management could be targeted at these parents, it might be more effective in preventing and reducing child maltreatment.

In addition, it is interesting to find out that some parents, such as teachers and urban parents with better educational backgrounds, might be more sensitive and responsive to the emotional needs and mental health of their children. They were aware that physical punishment or verbal aggression might not be beneficial for mental health of their children. They were more likely to engage in positive interactions with their children and were also more likely to reflect on and to improve their disciplinary methods in the future. This suggests that if Chinese parents could be taught to pay more attention to their children's emotional needs rather than merely physical health and to engage in more positive parent-child interactions, they may be more likely to recognise the negative effects of child maltreatment, which could further prevent them from

using violent disciplinary acts. Meanwhile this finding suggests that it might be more realistic and effective to start with public awareness campaigns and parenting intervention programmes among health professionals and urban parents with better educational backgrounds.

Lastly, it is worth noting that there were no obvious differences in the experiences of punishing or mistreating children between parents and professionals. Interviews were purposely undertaken with eight parents and 13 professionals, which may raise the issue of representativeness. However, the primary purpose of the sample selection was to gather information from parents with various occupational backgrounds. This allowed me to explore differences in the experiences of disciplining/punishing children between parents and professionals. The result of no obvious differences between the two groups is perhaps of particular concern, given that in many countries, professionals, such as teachers and doctors, play a role in identifying child abuse or maltreatment in families and protecting children from potential harm.

The inclusion of professionals also offered me the opportunity to explore corporal punishment in schools and to understand how professionals process child abuse cases in practice, despite the fact that these were not the primary research focus. For instance, corporal punishment of students was self-reported by teachers and no actions apart from verbal communication were taken by professionals in most situations when witnessing severe forms of physical punishment. These findings indicate that the training of professionals might be an important step for the set-up of a nationwide formal child protection system. At least professional groups should be trained with appropriate methods of disciplining children and on reporting and processing suspected child abuse cases. There is also an important need to further enforce the implementation of the law from prohibition to elimination of corporal punishment in schools.

In addition, this research shows that teachers could play an important role in influencing parental disciplinary methods and parent-teacher interaction should be strengthened. As indicated by many teachers, parents would turn to them for

information or advice on disciplining children. This is not surprising as Chinese parents tend to place considerable trust in teachers, especially in rural areas. This suggests that it would be feasible to design parenting support programmes in schools in order to reduce the occurrence of maltreatment against school-aged children. Teachers could also play a role in protecting children from maltreatment because of their frequent contact with students and parents. As indicated by this research, almost all teachers witnessed cases of severe physical punishment in their classes. They could be trained on how to deal with such cases appropriately and professionally.

9.2 What This Thesis Adds to The Literature

9.2.1 Contributions to Knowledge

This thesis adds to the literature in the following aspects: firstly, this research collected original data from multiple sources including young adults, parents and children, which holds implications for optimum research methodologies to determine the incidence of child maltreatment. As indicated by the literature review, although there has been an increasing amount of literature on child maltreatment in China during recent decades, almost all of them are based on the report of a single informant. Secondly, this research extensively examines maltreatment committed by a range of perpetrators due to the use of ICAST-R with young adults, despite the fact that this was not the primary focus of the research. It substantially contributes to the understanding of the magnitude of the issue, as most studies in China only focus on one particular source of violence (e.g., parents), or many of them failed to distinguish violence by perpetrator.

Thirdly, this is the first study from mainland China to examine the relationship among three factors: parental aggressive tendencies, parental childhood maltreatment, and maltreatment of children. While the aggression-maltreatment association and intergenerational transmission of maltreatment has been reported elsewhere for severe physical maltreatment, this study provides evidence for physical maltreatment of different severities and other types of child maltreatment. It explores, for the first time in China, the role of parental

aggression in the intergenerational transmission of maltreatment. It also contributes to the sparse literature on aggressive tendency measured by the short 12-item aggression questionnaire in China. For instance, this research found that men scored significantly higher than women for physical aggression in line with much of the previous research,³³⁰⁻³³² but no gender difference was found for anger, hostility and verbal aggression, as reported by others.^{265,332,333} The use of a standardised and validated scale also allows for direct comparisons with other research. The men and women in this study scored lower for each subscale than men in rural Guizhou,³³⁴ and slightly higher than Hong Kong Chinese for all subscales except for hostility,²⁶⁵ higher than Spanish adults for overall aggression and each subscale except for verbal aggression,³³⁵ but lower than Greek adults for each subscale.³³⁶

Fourthly, this thesis confirms previous findings of the negative effects of different types of child maltreatment. More importantly, it throws light on the individual effects of each type of child maltreatment, including witnessing domestic violence. There is increasing evidence from China to suggest a strong association between maltreatment and negative outcomes in children,^{173,179} but most studies do not differentiate the severity of physical maltreatment.^{93,176} In addition, there has been less exploration of the effects of emotional maltreatment, the interactions between different types of maltreatment exposure, and the effects of witnessing domestic violence on child outcomes in the Chinese setting. Furthermore, this research provides evidence of how child sex differences affects the impacts of different types of maltreatment. Research from Western settings showed that child maltreatment might affect boys and girls differently.²³² Although a few studies were identified on this issue in mainland China, they have merely focused on physical maltreatment.^{120,126}

Lastly, this research utilised a mixed-method design to study child maltreatment, which adds to the literature on sensitive topics in China. Despite the sensitive and emotive nature of the research topic, my experience using qualitative approaches to collect information about child maltreatment from different perspectives – young adults, children and parents, was overall quite positive. It enhanced understandings of the complexity of child maltreatment in China. In particular, the voices of children and young adults bring a richness to

the issue through sharing their personal experiences in ways that the quantitative research does not. It seems that young adults were generally more open about their experiences of child maltreatment. While some children and parents showed concerns for family privacy, they were provided with reassurance that what they said would be confidential and anonymous, and were encouraged to report their experiences and thoughts openly and candidly. As expected, this study showed that group participation stimulated children's memories of personal experiences and generated group discussions that were grounded in lived experiences, consistent with previous research.²⁹⁷ In addition, previous research suggested that children can be more relaxed discussing issues among peers than they might be if interviewed alone by an adult.²⁵⁷ My research lends support to this: in the first group discussion with children from the urban school, the atmosphere was very lively; very personal and wide-ranging discussions were provoked; children in the group derived considerable support as they shared similar experiences. However, in the other two groups of children from the rural schools, the discussions were less lively as members of the group waited for someone else to respond; more strategies were used to encourage participation.

9.2.2 Contributions to the Theoretical Framework

This research attempts to understand the social-psychological phenomenon of child maltreatment in the Chinese context from an ecological/transactional perspective. The ecological model has been extensively used in Western research, but has not raised enough attention among Chinese researchers.

The quantitative research provides support for the ecological model of child maltreatment at the level of ontogenic development. Firstly, Belsky's model has primarily focused on parental history of childhood maltreatment. This is supported by the qualitative findings which showed that parental childhood maltreatment was significantly associated with a higher risk of moderate/severe physical maltreatment and emotional maltreatment of children. More importantly, this research showed that the intergenerational transmission of maltreatment might differ by severity and type, which was not mentioned in the

ecological model. Secondly, as proposed by Belsky's ecological model, parents' personality and psychological resources might play a role in the occurrence of child maltreatment. This research showed that a parental aggressive tendency is a risk factor for maltreatment of children, after adjusting for parent and child characteristics and family socio-economic status. While most research in this field has mainly gathered data from cases that medical or psychiatric practitioners had at hand, this research provides support for the ecological model through gathering information from a large-scale population. Thirdly, several mediating processes accounting for the intergenerational transmission of maltreatment have been discussed, including a social-learning perspective, parents' beliefs of discipline and hostile personalities. This research lends support to the mechanism of hostile personalities in parents, as the quantitative findings showed that parental aggressive tendencies (including anger, hostility, physical and verbal aggression), measured by Bryant and Smith's (2001) short Aggression Questionnaire, are an explanatory factor for the intergenerational transmission of maltreatment.

The qualitative research provides detailed accounts of parental behaviours, which is very useful for disentangling the causes of child maltreatment. It has made important contributions to the ecological and/or transactional model of child maltreatment. Firstly, the qualitative findings support the ecological/transactional model which proposes that there appears to be no single cause of child maltreatment, and that child maltreatment arises as a result of a transactional process involving characteristics of parents, children and the multiple aspects they are embedded in.^{39-41,63}

Secondly, the qualitative research enables the researcher to move beyond the mere identification of individual variables to an exploration of the interactions between variables both within and between different levels. It lends support to the ecological model at different levels: (1) Macrosystem: this research indicates the normalisation of child maltreatment, due to the Chinese society's approval of physical punishment for the purpose of disciplining children. More importantly, this research shows that in the Chinese context, parents' high

expectations of children and great attention to their academic performance are also important factors in the aetiology of child maltreatment, which were not mentioned in Belsky's ecological model. (2) Microsystem and exosystem: despite the normalisation of overall physical and emotional maltreatment, frequent and severe maltreatment tends to happen in multi-problem households. This research has added to the understanding of the role of the family system in the occurrence of severe and frequent maltreatment (e.g., single motherhood, parents with low educational backgrounds, frequent disputes between parents, different religious beliefs within one family). It has also identified some exosystem factors which may play a role in the process of child maltreatment through pressures they put on the microsystem of the family (e.g., stressful work environment, rural residence, rural-to-urban migration). This provides evidence to support the ecological point of view: firstly, social and economic conditions producing stress and frustration are important factors in explaining parent-to-child maltreatment; secondly, what happens between husbands and wives has implications for what happens between parents and their children. It is worth mentioning that some contributing factors, such as different religions within one family and rural-to-urban migration were not discussed in Belsky's ecological model, but some evidence suggests that child maltreatment was more likely to occur when women entered into marriage with men of a different religion.⁴⁴ Also, as indicated by some research from China, migrant children were more likely to be physically and emotionally maltreated than their local counterparts.⁸⁶ These factors deserve more attention in future research. (3) Ontogenic development: consistent with the quantitative findings, the qualitative research also lends support to the role of poor emotional control in parents in the aetiology of child maltreatment beyond socioeconomic stress, possibly because of their own troubled and abusive experiences in childhood. This has made great contributions to comprehending why not every parent in the socially and economically deprived families engaged in severe physical maltreatment, and why parents in the families without social or economic stresses still mistreated their children.

Thirdly, the qualitative research lends support to the theoretical proposition of the ecological-transactional model of child maltreatment, proposed by Cicchetti

& Lynch (1993).⁴¹ This model provides a framework to explain why some maltreated children develop negative outcomes while some display successful adaptation in the face of violence within families, which depends on the balance of potentiating factors (increasing the probability of maltreatment) and protective factors (decreasing the risk for maltreatment).⁴¹ The presence of enduring protective factors and transient buffers may help to explain why some maltreated children display successful adaptation in the face of maltreatment by parents.⁴¹ The interviews with young people in this research suggest that harm from child maltreatment might be potentially moderated by some factors in the Chinese context, such as the perception of parental good intentions, the perception of the Chinese punitive culture, parental warmth in daily life, or positive parent-child interaction after harsh discipline.

9.3 Strengths and Limitations

This research adds useful insights into experiences and perceptions, risk and protective factors, and the negative effects in relation to child maltreatment in China. It extensively researched child maltreatment of multiple types (e.g., physical, emotional, non-contact, and witnessing domestic violence) which were committed by a wide range of perpetrators, including parents, teachers, peers, grandparents and siblings. It utilised a mixed-method design and collected information from multiple sources: young adults, parents and children, which holds implications for optimum research methodologies to determine the incidence of maltreatment.

However, acknowledgement must be made to this study's limitations. The findings should be generalised with caution. Firstly, the major limitation comes from the constraints of the sampling strategy used. The university and school selection process was not random in the quantitative research. As this was a time and budget limited project, only three universities and four schools, where permission for conducting this research was obtained, were sampled from Zhejiang province, which raises the question of the representativeness of this data. From an epidemiological point of view, the non-random sampling subjects the findings to selection bias. However, the following strategies were utilised to

increase the validity and reliability of the findings: (1) the qualitative component of this study was used to extend and triangulate the quantitative findings; (2), the study obtained information from multiple information sources in assessing parent-to-child maltreatment; (3) in order to increase the representativeness of the sample, both urban and rural schools were sampled, and three universities were selected, representing high, middle and low level educational establishments; (4) validated tools were used to measure child maltreatment, for instance, ICAST-R, ICAST-P, ICAST-C and CTSPC. All tools were piloted among different populations. At the end of the pilot study, I asked for feedback on the tools from the participants. They were then amended accordingly, to maximise the suitability for the Chinese setting.

The qualitative research is based on small numbers of participants who were not selected through scientific sampling. However, the aim of the research was not to attain a representative sample but to draw insights from a detailed analysis. Despite that, this research attempted to sample participants with various backgrounds by considering several factors, such as sex, age, and residence (urban or rural); occupation was also considered when sampling parents. Interviews were purposely undertaken with parents and professionals, which may raise the issue of representativeness. However, the primary purpose of the sample selection was to gather information from parents with various occupational backgrounds. This allowed me to explore differences in the experiences of disciplining/punishing children between parents and professionals.

Secondly, despite validated tools being used for the measurement of exposures and outcomes, recall bias was inevitable as this study collected information from participants' retrospective self-reports. While young adults are regarded as the most reliable respondents for research of this type there is clear potential for recall bias, which could lead to both over or under-reporting, depending on the individual. For instance, as indicated by both the quantitative and qualitative research, young adults tend to be more open about their experiences of childhood maltreatment. However, they might have difficulties in recalling

events in early childhood. In the questionnaire survey of young adults, physical and emotional maltreatment were reported least frequently in the under-five age group. This is inconsistent with previous findings that physical maltreatment is more common in the under-fives and that emotional maltreatment was generally common across different age stages. The inconsistency could potentially be explained by recall bias. The qualitative research afforded the opportunity to verify this explanation.

Thirdly, there may be sensitivity around reporting potentially socially unacceptable experiences, particularly those perpetrated by family members, possibly arising from intrusion into intimate behaviours.^{260,261} This, in turn, has effects on the levels of reliability and validity of the research findings and raises a concomitant need for ethical awareness. In order to minimise the impact of sensitivity, all participants were assured strict confidentiality and anonymity. It seems that young adults were generally more open about their experiences of child maltreatment. While some children and parents showed concerns for family privacy, they were provided with reassurance that what they said would be confidential and anonymous, and were encouraged to report their experiences and thoughts openly and candidly. Especially in the focus groups, children agreed on rules of outside disclosure: 'not to share any private information shared in the group with people outside the group'. In addition, all participants were provided with clear explanations of the study and were told they could discuss any difficult issues with a counsellor, for which, a phone number was provided. However, none of them availed themselves of this service. Other practical concerns include dealing with emotional responses of the participants evoked by the questions in the qualitative study and creating conditions for participants to feel safe and comfortable. As a result of the emotive nature of this topic, a few children's emotional responses were stimulated in the discussions. Despite that, many children and young adults found it helpful to be given the opportunity to talk to someone interested in their experiences and views.

The fourth important limitation of this research is that the cross-sectional design cannot address causality, which prevents assertions regarding the direction of

the associations between aggressive tendencies in parents and different types of child maltreatment, as well as the direction of the relationship between maltreatment exposures and emotional/behavioural problems in children. Large scale prospective longitudinal studies across a considerable length of time are required in order to confirm causal relationship of risk factors and negative effects of child maltreatment.

Lastly, data collected for this thesis were appropriate and sufficient to answer the research questions. But there were some further data I would have liked to have collected. For instance, the questionnaire survey with young adults asked about their perceptions of harm caused by different acts, but the nature of the harm was not defined. Moreover, this study only collected data from either the mother or father of each child within one household, so it was not possible to analyse the role of the spouse's aggressive tendency and childhood maltreatment. It would be interesting to have collected data from both parents. In addition, when examining the intergenerational transmission of maltreatment, parental history of childhood maltreatment was measured with two questions. This may lead to under-reporting, despite specific examples being provided. Levels of overall maltreatment in childhood experienced by parents and children were very similar in this study, contradicting assumptions of secular downward trends in child maltreatment.⁶ It would be better to use the same items that measured maltreatment of children to measure the parental history of childhood maltreatment.

9.4 Implications for Future Research

This thesis has important implications for future research. Firstly, it would be useful to conduct more research including both parents and children for information on child maltreatment. Researchers recommend collecting data from multiple sources to get a 'better estimate' of child maltreatment prevalence.³³⁷ This research is one of only a few studies to have collected data from both parents and children, allowing the variable of child maltreatment to be defined from more than one perspective and findings for parents and children to be compared. There is a need for more research comparing parents and

children's reports of maltreatment and factors affecting agreement or disagreement of their reports, as this research showed that parents consistently reported higher figures than children.

Secondly, more studies are needed in the area of intergenerational transmission of maltreatment. An important direction is to further understand the underlying mechanisms. This research shows that parental aggression might be an explanatory factor for intergenerational transmission of maltreatment. There may be other underlying mechanisms, for example, the social learning theory.⁶⁷ Biological or familial factors may also underlie the intergenerational maltreatment according to genetic studies on criminality and delinquency.^{310,311} However, these factors were not examined in this study. More research is needed to understand the underlying mechanisms, involving biological, family or social context factors. In addition, it would be interesting to explore the role of perceptions of childhood maltreatment in the intergenerational transmission of maltreatment. This research shows that young adults, who were able to understand the intentions behind their parents' behaviours and felt harmed by their childhood experiences, expressed that they had the capacity to feel the pain and that they would consciously be resolved not to repeat the pattern with their own children in the future. As proposed by previous researchers, parents who remember their own negative experiences in childhood, and have formed coherent accounts of them, are not likely to maltreat their children.^{318,319} In future, it would be beneficial to undertake longitudinal research among young people with histories of childhood maltreatment in China to examine how their perceptions of childhood experiences would affect their ways of disciplining their children in the long-term.

Thirdly, more research is needed to understand long term effects of parent-to-child maltreatment in mainland China. An important future research direction is to further examine long-term effects of emotional maltreatment, given the high prevalence of emotional maltreatment in China. This research indicates that experience of emotional maltreatment might be more harmful and less acceptable than physical. However, this issue has generally received less

attention that other forms of maltreatment. The second issue which requires more research in future is gender differences in the impact of child maltreatment. This research shows greater effects of physical maltreatment and non-contact punishment among boys and greater effects of emotional maltreatment among girls. However, two Chinese studies of children found physical maltreatment strongly predicted behavioural problems in girls.^{120,126} More research is needed to clarify the inconsistent findings. The third implication for future research is to further explore the occurrence of child maltreatment across developmental stages. This is important because previous research shows that variation in the developmental stage (childhood or adolescence) during which the maltreatment occurs affects problem outcomes in adolescents, although evidence is mixed regarding relative effects of different developmental stages.²⁷⁸⁻²⁸⁰ However, there is a lack of research on this issue in the Chinese context. The final useful implication for future research is a need for a better understanding of negative effects caused by exposure to domestic violence. This research shows that half of the children had witnessed domestic violence, but this issue has not been examined much in mainland China. In addition, previous research suggests that the negative effects were greater among children experiencing both the witnessing of domestic violence and physical maltreatment, than those experiencing only one type or none at all.^{131,285-288} However, evidence has been mixed on whether witnessing domestic violence alone had negative effects on children. For instance, O'Keefe (1996) reported significant negative impacts, but Moylan *et al.* (2010) reported no effect.^{285,288} This research suggests that exposure to domestic violence alone was not associated with abnormal emotions and behaviours in children, but it independently predicted borderline emotional symptoms for girls and borderline conduct problems for boys. Therefore, more research is needed to confirm the independent effects of exposure to domestic violence.

Lastly, more attention needs to be given to maltreatment by teachers, peers, siblings, and grandparents. This research indicates that considerable maltreatment perpetrated by teachers was reported by young adults. It was also surprisingly admitted by some teachers. However, this issue was not examined among children, as this was a very sensitive issue, especially when the

permission of schools and the co-operation of teachers were required to conduct the study. This research also shows that maltreatment perpetrated by peers, siblings and grandparents is not uncommon, and evidence from other settings has shown adverse effects on children caused by them.^{301,304,305} However, there is limited research in this field in mainland China.

9.5 Reflections on where to draw the line between ‘acceptable’ discipline and dangerous maltreatment

Based on this research, I attempted to propose some factors which should be considered for reasonable discipline, despite the fact that the line will never be exact. It is true that in all cultures, children need to be taught about self-control and acceptable behaviours. This is an integral part of parenting. However, as indicated by this research, many forms clearly go far beyond acts which would be regarded as justifiable as a form of parental discipline. So where should one draw the line between locally ‘acceptable’ discipline and dangerous maltreatment?

Severity. The qualitative and quantitative findings of this research consistently indicate that severe forms of physical punishment were not rare, such as severely beating, choking, threatening with a knife, and those causing physical injuries. From a legal perspective, the recent Anti-Domestic Violence Law (2016) prohibited the use of violence against children by guardians, which is defined as ‘the physical, psychological and other harm perpetrated against family members, such as beating, binding, injuring, using physical constraints as well as frequent verbal abuse and intimidation’.^{26,27} In other words, it specified the legal protection of the more extreme forms of maltreatment. There is a need to enhance the enforcement of the law. It might be not realistic to end all forms of physical punishment due to the social context in China, but at least children should be protected from severe forms of physical punishment, despite the fact that it might not be clear how the law should be enforced in a setting where no agency takes formal responsibility of protection for abused children.

The age and developmental stage of the child. This research indicates that many parents admitted to physical maltreatment of younger children aged 3-7, and perceived it as necessary for disciplining children of this age, because of their perceived cognitive immaturity. In many settings, physical punishment against younger children is more likely to be considered as unreasonable or excessive. As indicated by previous research, younger children are less able to recognise the intention behind a parent's behaviour and to respond to that intention.³²⁶ For this reason, physical punishment seems to have no disciplinary value as younger children have no capacity to understand. More importantly, there is increasing evidence to show behavioural and developmental harm caused by minor physical maltreatment (e.g., spanking) in early life, including in China.^{174,178,338,339} Chinese parents should be educated about the negative effects of maltreatment on young children and should be taught how to manage young children's behaviours.

Non-physical effects. This research shows that most parents perceived physical punishment and verbal aggression as necessary in disciplining children and had a low awareness of harm caused by maltreatment. Generally parents' perceptions of harm focus on physical aspects of their children rather than emotional feelings or needs. However, both the quantitative and qualitative study with children and young people showed evidence relating to emotional and psychological impacts of moderate/severe physical emotional maltreatment during childhood and early adulthood. Chinese parents should pay more attention to their children's emotional needs and mental health.

Parent's motivation. The qualitative research shows that although all parents attempted to justify their behaviours for the purpose of discipline, many of them admitted the use of physical punishment or verbal aggression with their children, due to losing control. Through examining their feelings afterwards, they often realised that children's behaviours might not deserve such punishment, and expressed regret for taking their anger out on their children. It is important to consider whether the parent administered discipline in a controlled manner and whether the parent was angry when he or she

administered the discipline. In addition, the quantitative study shows that higher parental aggression tendencies were found to be associated with an increased risk of all types of maltreatment of children. Chinese parents should be taught how to interact with children in a positive manner, and how to manage their anger, this might lead to a reduction of child maltreatment.

9.6 Implications for Policy and Practice

With the launch of the Sustainable Development Goals (SDGs) to end all forms of violence against children, the issue of child maltreatment has climbed up the global health and rights agenda. This thesis has important implications for child protection policy and practice in China. More efforts are therefore needed to tackle the issue of child protection and to improve the quality of life for Chinese children. There is a need for an effective public health approach to tackle child maltreatment in China with a focus on primary prevention programs directed at the general population. There is also a need for a nationwide formal child protection system.

Firstly, there is an important need to raise public awareness about appropriate methods for disciplining children and negative effects of child maltreatment, with a focus on parents, as this research shows high levels of child maltreatment in the home setting and considerable harm caused to children and young adults. The qualitative findings also suggest that if Chinese parents could be taught to pay more attention to their children's mental health rather than merely physical health, they may be more likely to recognise the negative effects of maltreatment on their children. Evidence from developed countries has shown that population level parenting programmes have positive effects on preventing maltreatment and associated outcomes, for instance, the Triple P – Positive Parenting Program (Triple P).³⁴⁰ The Triple P is a comprehensive, multilevel system of parenting intervention that combines within a single intervention universal and more targeted interventions for high-risk children and their parents.³⁴¹ Given the social and cultural context within mainland China, it would be more feasible to start with raising public awareness through a universal population-level media information campaign, including television, local

newspapers, and social media platforms. Newsletters relating to child-rearing strategies and techniques could also be provided to parents in prenatal care settings or immunisation clinics.

In addition, as indicated by this research that Chinese parents tend to place considerable trust in teachers, parenting programmes could be carried-out through preschools and schools in order to reduce the occurrence of maltreatment in school-aged children. Programmes that can promote positive interactions between parents and children should also be encouraged in schools, because the qualitative research with young people shows that positive parent-child interactions after harsh discipline might moderate the harm from maltreatment.

This research shows the ‘normalisation’ of child maltreatment in China, indicating an important need for public education to gradually change social and cultural norms relating to child discipline. This cannot be achieved by public education alone, which should be accompanied by supportive services that encourage the reporting of maltreatment, and the enactment of new laws and policies that make forms of violence punishable offences. Notwithstanding this, it will take time, even generations, to achieve a cultural and social transformation. The qualitative research suggests that public awareness campaigns and parenting intervention programmes might be more effective among teachers and urban parents with better education backgrounds as they were more sensitive to children’s emotional needs and mental health, and were more likely to reflect on and to improve their disciplinary methods.

Preventing maltreatment before its occurrence will require a major shift in what the general public regards as ‘acceptable’ disciplinary behaviours in China. Efforts should be made to establish clear-cut cultural prohibitions against the use of physical force as a means of child-rearing. However, it might not be realistic to end all forms of physical punishment in the short term due to the social context in China. Perhaps a more realistic goal would be to protect children from severe forms of physical punishment, which have been prohibited by the recent Anti-Domestic Violence Law (2016). There is a need for

campaigns to promote public awareness of the law, particularly in relation to the definition of violence against children and the mandatory reporting system.

Secondly, this research highlights an urgent need to identify multi-problem families, for instance, families suffering from social and economic stress. The quantitative research shows that physical maltreatment appears to be common across Chinese society, but emotional maltreatment and severe physical maltreatment were shown to be positively associated with low economic status. The qualitative research provides detailed accounts of parents' behaviours which shows additional risk factors for severe and frequent maltreatment, such as single motherhood, frequent inter-parent disputes, stressful work environments, rural-to-urban migration, parents with low educational backgrounds and from rural areas. Home-visiting programmes are not uniformly effective in reducing child maltreatment; those that have shown benefits are the Nurse-Family Partnership in the US and the Early Start programme in New Zealand.³⁴⁰ Both programmes are provided by nurses or social workers to low-income families or families facing stress and difficulties.³⁴⁰ It might not be realistic to carry out a large-scale home visitation programme in China, but a pilot programme is certainly required to target high-risk families, in order to reduce child maltreatment and prevent the intergenerational transmission of maltreatment. Mothers who were pregnant for the first time and of low socioeconomic status could be recruited from prenatal clinics, as suggested by the Nurse-Family Partnership.

The quantitative findings show that high parental aggression scores were positively associated with all types of child maltreatment. This is also supported by the qualitative research which indicates that maltreatment seemed more likely to occur in the immediate context of parent-child interaction when parents became irritated with children's behaviours and were less able to manage their negative emotions (e.g., anger). If parents can be taught how to interact with children in a positive manner, or how to manage their anger, this might lead to a reduction of child maltreatment, as indicated by the Triple P, which incorporated attributional retraining and anger management.³⁴² In addition, the qualitative research with parents delivers another important message – such interventions

might be more effective if they could target parents who were able to identify the irrationality of their own behaviours and expressed regret for taking their anger out on their children, as they were more willing to change their disciplinary methods.

Thirdly, there is a need to identify child victims of multiple-type maltreatment and to invest in support services to alleviate harm caused to children. The quantitative research with children shows that there was an accumulating risk for emotional and behavioural problems with the number of different types of maltreatment, and around one fifth of children were exposed to three or four types (including physical, emotional, non-contact, witnessing). School-based programs should be introduced, because teachers and other school staff are in an optimal position to prevent, identify, and assist victims of child maltreatment due to their frequent contact with students and parents. As indicated by this research, almost all teachers witnessed several cases of severe physical punishment in their classes. Of course teachers should be trained first in order to do so.

Lastly, laws and policies need to be not only instituted, but also enforced. There is a need for campaigns to promote public awareness of the recent Anti-Domestic Violence Law, although it might not be clear how such a law could be enforced when there is a lack of an implemented and effective child protection system to identify and address child abuse in China. For instance, there is no agency with formal responsibility for child protection, and a lack of placement services for maltreated children. The new law specifies mandatory reporting of violence against children. However, a potential challenge for the enforcement of such a regulation is that individuals are not willing to intervene in other families' business. In addition, implementation of the law from prohibition to elimination of corporal punishment in schools needs to be further enhanced, in order to make schools a safe place for children. The phenomenon that corporal punishment is still commonly used by teachers is unacceptable, since it has been officially prohibited by law. Teachers need to be trained and supported in child management techniques that focus on finding constructive solutions to challenging situations.

A formal nationwide child protection system should be introduced in China. At least children who suffer from extreme forms of maltreatment should be protected, which is not uncommon as suggested by this research. In China, a number of governmental agencies are responsible for the protection of vulnerable children, and could therefore potentially form part of a formal child protection system, with powers to act when children are identified as abused or at risk of abuse, for instance, civil affairs departments, local working committees on women and children, and public security departments.³⁰ However, the qualitative findings of this research shows that no actions, apart from verbal communication with parents, were taken by professionals in most situations when witnessing severe forms of physical punishment. This indicates that the training of professionals might be an important step for the set-up of a formal nationwide child protection system. At least professional groups should be trained on appropriate methods of disciplining children and on reporting and processing suspected child abuse cases. Another challenging issue facing child protection is how to place maltreated children. Child welfare institutions and children's rescue and protection centres in China play important roles in providing alternative care services for vulnerable children, including placing them in foster homes or adoptive homes. But they are targeted at 'left-behind' children, and children in adverse family situations. Unlike other countries, the foster care system in China only provides services for orphaned and abandoned children. Policy makers should consider expanding the current child protection programmes to maltreated children.

In summary, the pervasiveness of child maltreatment and the considerable harm caused to children and young adults suggest an urgent need for raising public awareness, educating parents and introducing a formal child protection system in China.

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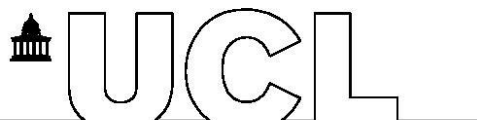
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APPENDICES

Appendix 4-1 Ethical Approval

A. The University College London Research Ethics Committee

UCL RESEARCH ETHICS COMMITTEE
GRADUATE SCHOOL OFFICE



Professor Therese Hesketh
Institute of Global Health
UCL

1st April 2014

Dear Professor Hesketh

Notification of Ethical Approval

Project ID: 5279/001: An exploration of child maltreatment in China: prevalence and attitudes

In my capacity as Chair of the UCL Research Ethics Committee (REC) I am pleased to confirm that your study has been approved by the UCL REC for the duration of the project i.e. until September 2016, on condition that local approval through Zhejiang University and the Provincial Education Bureau is obtained prior to the commencement of the study.

Approval is also subject to the following conditions:

1. You must seek Chair's approval for proposed amendments to the research for which this approval has been given. Ethical approval is specific to this project and must not be treated as applicable to research of a similar nature. Each research project is reviewed separately and if there are significant changes to the research protocol you should seek confirmation of continued ethical approval by completing the 'Amendment Approval Request Form'.

The form identified above can be accessed by logging on to the ethics website homepage: <http://www.grad.ucl.ac.uk/ethics/> and clicking on the button marked 'Key Responsibilities of the Researcher Following Approval'.

2. It is your responsibility to report to the Committee any unanticipated problems or adverse events involving risks to participants or others. Both non-serious and serious adverse events must be reported.

Reporting Non-Serious Adverse Events

For non-serious adverse events you will need to inform Helen Dougal, Ethics Committee Administrator (ethics@ucl.ac.uk), within ten days of an adverse incident occurring and provide a full written report that should include any amendments to the participant information sheet and study protocol. The Chair or Vice-Chair of the Ethics Committee will confirm that the incident is non-serious and report to the Committee at the next meeting. The final view of the Committee will be communicated to you.

Reporting Serious Adverse Events

The Ethics Committee should be notified of all serious adverse events via the Ethics Committee Administrator immediately the incident occurs. Where the adverse incident is unexpected and serious, the Chair or Vice-Chair will decide whether the study should be terminated pending the opinion of an independent expert. The adverse event will be considered at the next Committee meeting and a decision will be made on the need to change the information leaflet and/or study protocol.

On completion of the research you must submit a brief report (a maximum of two sides of A4) of your findings/concluding comments to the Committee, which includes in particular issues relating to the ethical implications of the research.

With best wishes for your research.

Yours sincerely

Professor John Foreman
Chair of the UCL Research Ethics Committee

Cc:
Yanyan Ni, Applicant
Professor Anthony Costello, Head of Department


UCL Research Ethics Committee, c/o The Graduate School, North Cloisters, Wilkins Building
University College London Gower Street London WC1E 6BT
Tel: +44 (0)20 7679 7844 Fax: +44 (0)20 7679 7043
ethics@ucl.ac.uk
www.ucl.ac.uk/gradschool

B. Ethical Approval from the Zhejiang University Ethics Board

浙江大学公共卫生学院医学伦理委员会

科研项目申请伦理审批件

浙大公卫 伦理批第 ZG/2014(2)-1 号

项目名称	中国儿童虐待现状调查——定性与定量研究					
申请部门	社会医学系		项目负责人：周旭东			
			参加研究人员：Therese Hesketh, 倪延延			
报送材料	科研项目伦理审查申请表 <input checked="" type="checkbox"/> 课题申报书 <input type="checkbox"/> 研究方案和项目摘要 <input checked="" type="checkbox"/> 知情同意书 <input checked="" type="checkbox"/> 相关说明 <input type="checkbox"/>					
审查	研究者资格：符合要求 <input checked="" type="checkbox"/> 不符合要求 <input type="checkbox"/>			项目来源：		
	获取知情同意书方式：适当 <input checked="" type="checkbox"/> 不适当 <input type="checkbox"/>			自筹		
	试验方案：适当 <input checked="" type="checkbox"/> 不适当 <input type="checkbox"/>					
伦理委员会 委员 签名	委员姓名	签名	委员姓名	签名	委员姓名	签名
	施卫星		金永堂		朱善宽	
	沈毅		夏大静		王伟	
	叶怀庄		宋永新			
结果	参会____人，投票____人； 同意____票，作必要修正后同意____票，修改后再次会议讨论____票，不同意____票。					
结论	同意	同意 稍作修改	修改后再次会议讨论	不同意		
	✓					
审评意见：						
 主任委员（签名） 医学伦理委员会（盖章） 浙江大学公共卫生学院医学伦理委员会						
2014年12月9日						

Appendix 5-1 Information Sheet and Questionnaire – Young Adult’s Version

(An information sheet featured as the first page of the questionnaire)

A. English Version

Information Sheet for Young Adults in Quantitative Studies

Title of Project: **An Exploration of Child Discipline in China**

This study has been approved by the UCL Research Ethics Committee (Project ID Number): 5279/001

Name Yanyan Ni

Work Address UCL Institute for Global Health

Institute of Child Health

30 Guilford Street, London WC1N 1EH

Contact Details yanyan.ni.13@ucl.ac.uk

We would like to invite you to participate in this research project.

Details of Study:

We want to ask you about your childhood experience of discipline and punishment. We hope you will find this an interesting experience and it may give you some insights into problems that you may not have considered before.

We will give you a questionnaire and all you need to do is to fill in all the answers. It will take you about twenty minutes. Some questions may seem strange or hard to answer. Please try to answer them as best you can, thinking about your childhood. It is not a test. There is not right or wrong answer, just say what you remember happened to you and what you think. If you don't feel comfortable with answering a question, just don't answer.

If the questions have made you think about things that worry you and you want to discuss these with someone— either phone the number on the form or tell the person who organised this.

The information that we collect from you is confidential and anonymous. You don't need to write your name and no one will know what you have written. Summaries of relevant findings will be shared with you through the website of School of Public Health, Zhejiang University.

It is up to you to decide whether to take part or not; choosing not to take part will not disadvantage you in any way.

All data will be collected and stored in accordance with the Data Protection Act 1998.

Part A Please tell us a little about yourself

1. Are you male or female? ① Male ② Female
2. How old are you? _____ (Years old)
3. When you were growing up, where did you live for MOST of that time?
① Urban area ② Rural area
4. Parental marital status:
① Married ② Separated/divorced ③ Widowed
④ Remarried ⑤ Other (Please indicate _____)
5. Did you live with your parents, when you were growing up?
Mother: ① Yes ② No Father: ① Yes ② No
6. a. Do you have any sibling? ① Yes ② No
b. If your answer is yes, can you tell us how many siblings you have? _____
7. Who else did you live with? (you can choose one or more options)
① Grandfather ② Grandmother ③ Other relative(s) ④ Other (Please indicate _____)
8. Mother's education:
① Primary school or below ② Middle school ③ High school ④ University or above
Father's education:
① Primary school or below ② Middle school ③ High school ④ University or above
9. How do you think of the economic status of your family in your own community?
① Excellent ② Good ③ Fair ④ Poor ⑤ Very poor

Part B Childhood experience

Next, we have some questions about violent or upsetting things that can happen to young people. Please think only about the years before you were 18.

- 1 **When you were growing up (before age 18), did any person ever hit or punch you (i.e. hit your bottom/slap your face/hit your hand or other parts of your body/twist your ear/ pull your hair/pinched you to cause pain)?**
① Yes ② No (Go to question 2) ③ Can't remember (Go to question 2)
(1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
(2) If happened, what times in your life? (you can choose one or more options)
① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
(3) Which people did this to you? (you can choose one or more options)
① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate _____)
(4) How much did this experience hurt or harm you?
① Very severe ② Severe ③ Minor ④ Not at all
- 2 **Before you were age 18, did any person ever kick you?**
① Yes ② No (Go to question 3) ③ Can't remember (Go to question 3)
(1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
(2) If happened, what times in your life? (you can choose one or more options)
① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17

- (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate_____)
- (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all

3 Before you were age 18, did anyone ever beat you with an object like a stick, cane, whip or belt?

- ① Yes ② No (Go to question 4) ③ Can't remember (Go to question 4)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
- (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
- (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate_____)
- (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all

4 Before you were 18, did anyone shake your body very hard?

- ① Yes ② No (Go to question 5) ③ Can't remember (Go to question 5)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
- (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
- (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate_____)
- (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all

5 Before you were 18, did anyone ever stab or cut you with a knife or sharp object?

- ① Yes ② No (Go to question 6) ③ Can't remember (Go to question 6)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
- (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
- (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate_____)
- (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all

6 Before you were 18, did anyone ever burn or scold you (i.e. cigarettes) or puncture you(i.e. needles)?

- ① Yes ② No (Go to question 7) ③ Can't remember (Go to question 7)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
- (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
- (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate_____)
- (4) How much did this experience hurt or harm you?

① Very severe ② Severe ③ Minor ④ Not at all

7 Before you were 18, did anyone ever punish you, like kneeling, standing or withholding a meal?

① Yes ② No (Go to question 8) ③ Can't remember (Go to question 8)

(1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times

(2) If happened, what times in your life? (you can choose one or more options)

① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17

(3) Which people did this to you? (you can choose one or more options)

① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate_____)

(4) How much did this experience hurt or harm you?

① Very severe ② Severe ③ Minor ④ Not at all

8 Many children have experiences where someone hurts their body on purpose, by hitting, beating or doing other acts. This might have happened to you.

In general, how do you think about your childhood now?

① I was never hurt by anyone

② When I was hit or beaten, mostly it was discipline and it was reasonable and justified

③ When I was hit or beaten, mostly it was discipline but it was NOT reasonable or justified

④ When I was hit or beaten, mostly it was NOT discipline and it was not justified

9 In general before you were 18, how often were you physically hurt (beaten, hit or other acts) compared with other children around your age at the time?

① Much less than most children ② A little less than most children

③ About the same as most children ④ A little more than most children

⑤ Much more than most children

Sometimes things happen that make children feel very frightened or worried.

They may also be made to feel embarrassed or ashamed, or unloved.

Please answer each of these questions about events that may have happened to you before you were 18.

(Next Page)

- 10 Before you were 18, did anyone refuse to talk to you, or ignore you that made you feel hurt?**
 ① Yes ② No (Go to question 11) ③ Can't remember (Go to question 11)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
 (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
 (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate____)
 (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all
- 11 Before you were age 18, did anyone insult and criticize you, to make you feel that you were bad, stupid or worthless?**
 ① Yes ② No (Go to question 12) ③ Can't remember (Go to question 12)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
 (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
 (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate____)
 (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all
- 12 Before you were age 18, did anyone say that you were not loved or did not deserve to be loved?**
 ① Yes ② No (Go to question 13) ③ Can't remember (Go to question 13)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
 (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
 (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate____)
 (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all
- 13 Before you were 18, did anyone say that they wish you had never been born, or were dead?**
 ① Yes ② No (Go to question 14) ③ Can't remember (Go to question 14)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
 (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
 (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate____)
 (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all
- 14 Before you were 18, were you ever personally threatened that you would be badly hurt?**
 ① Yes ② No (Go to question 15) ③ Can't remember (Go to question 15)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times

- (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
- (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate _____)
- (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all
- 15 Before you were 18, did anyone threaten to spank you, but did not do it actually?**
 ① Yes ② No (Go to question 16) ③ Can't remember (Go to question 16)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
- (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
- (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate _____)
- (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all
- 16 Before you were age 18, did anyone threaten to abandon you, or refuse to let you live in the house anymore?**
 ① Yes ② No (Go to question 17) ③ Can't remember (Go to question 17)
- (1) If yes, how often did this happen? ① 1-2 times ② 3-5 times ③ 6-10 times ④ >10 times
- (2) If happened, what times in your life? (you can choose one or more options)
 ① Before 5 yrs ② Between age 5-9 ③ Between age 10-13 ④ Between age 14-17
- (3) Which people did this to you? (you can choose one or more options)
 ① Mother ② Father ③ Grandparents ④ Siblings ⑤ Teacher ⑥ Other (Please indicate _____)
- (4) How much did this experience hurt or harm you?
 ① Very severe ② Severe ③ Minor ④ Not at all
- 17 Many children are insulted or threatened at some time during their lives. This may have happened to you. In general, how do you think about your childhood now?**
 ① I was never insulted or threatened by anyone
 ② When I was insulted or threatened, mostly it was discipline and it was reasonable and justified
 ③ When I was insulted or threatened, mostly it was discipline but it was NOT reasonable or justified
 ④ When I was insulted or threatened, mostly it was NOT discipline and it was not justified
- 18 In general before you were 18, how often were you insulted or threatened compared with other children around your age at the time?**
 ① Much less than most children ② A little less than most children
 ③ About the same as most children ④ A little more than most children
 ⑤ Much more than most children

B. Chinese Version

亲爱的同学，

你好！我们诚挚地邀请您参与我们的调查项目。问卷完成之后，请将问卷投进讲台旁的纸箱，谢谢你的合作！

我们希望了解你 18 岁以前是否有过被打、骂的经历，以及你对当前国内父母管教方式的想法。但是此次调查是匿名的，我们承诺会保护您的个人隐私。

你也许会觉得有些问题比较难回答，没有关系，请认真想想，然后尽自己最大的努力回答就好。答案没有对错之分，请一定要根据个人的真实经历进行回答，只有真实的答案对我们的研究是有帮助的。

你有权利决定参加或是不参加，我们会充分尊重你的个人意愿。如果不愿参加，请直接将空白问卷投入纸箱。如果你同意参与我们的调查，请如实填写问卷，每份问卷需要 20 分钟左右。问卷完成之后，请仔细检查，确保没有漏填题目。

如果这次调查让你想起不开心的事情，你需要找人聊一聊或者寻求一些帮助，请直接拨打我们工作人员的电话（_____），或者发送邮件到下述邮箱（_____）。

浙江大学公共卫生学院社会医学研究所
英国伦敦大学学院全球卫生研究所

第一部分 基本信息 (请在合适的选项下划‘√’)

1. 性别: ①男性 ②女性
2. 出生年月: _____年____月
3. 你的籍贯: _____省_____市_____县/乡
4. 在你18岁以前,你大部分时间住在什么地方? (单选) ①城市 ②农村
5. (1) 是否独生子女? ①是 ②否
(2) 如为“否”,你有_____个兄弟姐妹,家中排行第_____。
6. 在你18岁以前,你和父母住在一起吗?
母亲: ①是 ②否 ③其他(请说明_____)
父亲: ①是 ②否 ③其他(请说明_____)
7. 在你18岁以前,和你住在一起的还有什么人? (可多选)
①爷爷/外公 ②奶奶/外婆 ③亲兄弟姐妹 ④其他亲戚(____) ⑤其他人(____) ⑥无
8. 父母的婚姻状况: ①已婚 ②分居 ③离异 ④丧偶 ⑤再婚 ⑥其他(____)
9. (1) 父亲的文化水平: ①小学以下 ②小学 ③初中 ④高中/中专 ⑤大学/大专 ⑥硕士及以上
(2) 母亲的文化水平: ①小学以下 ②小学 ③初中 ④高中/中专 ⑤大学/大专 ⑥硕士及以上
10. (1) 父亲工作状况: ①在业(职业是____) ②无业/失业 ③其他(____)
(2) 母亲工作状况: ①在业(职业是____) ②无业/失业 ③其他(____)
11. 你家的经济状况在当地处于哪个水平?
①高水平 ②中上水平 ③中等水平 ④中下水平 ⑤低水平

第二部分 童年经历回顾

请认真想一想在你18岁以前,是否发生过以下事情,并在合适的选项下划‘√’。注意填写次数时只需凭印象,选择最接近的类别即可。请如实填写。

1. 在你18岁以前,是否有人用手打你或者捶你(比如说打屁股、扇耳光、打手心或身体其他部位、拧耳朵、拽头发、掐捏你等)?
①是 ②否(请跳到问题2) ③不记得(请跳到问题2)
- (1) 如发生过,在哪个年龄阶段? (可多选)
①5岁以前 ②5-9岁 ③10-13岁 ④14-17岁 ⑤不记得
- (2) 如发生过,发生过多少次? ①多到数不清 ②10-50次 ③少于10次
- (3) 哪些人对你做过这些行为? (可多选)
①母亲 ②父亲 ③继母 ④继父 ⑤爷爷/外公 ⑥奶奶/外婆
⑦兄弟姐妹 ⑧老师 ⑨其他(请注明_____)
- (4) 这对你造成的伤害: ①非常严重 ②严重 ③轻微 ④一点也不
2. 在你18岁以前,是否有人踢你?
①是 ②否(请跳到问题3) ③不记得(请跳到问题3)
- (1) 如发生过,在哪个年龄阶段? (可多选)
①5岁以前 ②5-9岁 ③10-13岁 ④14-17岁 ⑤不记得
- (2) 如发生过,发生过多少次? ①多到数不清 ②10-50次 ③少于10次
- (3) 哪些人对你做过这些行为? (可多选)
①母亲 ②父亲 ③继母 ④继父 ⑤爷爷/外公 ⑥奶奶/外婆

⑦ 兄弟姐妹 ⑧ 老师 ⑨ 其他 (请注明_____)

(4) 这对你造成的伤害: ① 非常严重 ② 严重 ③ 轻微 ④ 一点也不

3. 在你 18 岁以前, 是否有人用皮带、衣架、棍子、扫帚、尺子等工具打你?

① 是 ② 否 (请跳到问题 4) ③ 不记得 (请跳到问题 4)

(1) 如发生过, 在哪个年龄阶段? (可多选)

① 5 岁以前 ② 5-9 岁 ③ 10-13 岁 ④ 14-17 岁 ⑤ 不记得

(2) 如发生过, 发生过多少次? ① 多到数不清 ② 10-50 次 ③ 少于 10 次

(3) 哪些人对你做过这些行为? (可多选)

① 母亲 ② 父亲 ③ 继母 ④ 继父 ⑤ 爷爷/外公 ⑥ 奶奶/外婆

⑦ 兄弟姐妹 ⑧ 老师 ⑨ 其他 (请注明_____)

(4) 这对你造成的伤害: ① 非常严重 ② 严重 ③ 轻微 ④ 一点也不

4. 在你 18 岁以前, 是否有人用力摇晃你?

① 是 ② 否 (请跳到问题 5) ③ 不记得 (请跳到问题 5)

(1) 如发生过, 在哪个年龄阶段? (可多选)

① 5 岁以前 ② 5-9 岁 ③ 10-13 岁 ④ 14-17 岁 ⑤ 不记得

(2) 如发生过, 发生过多少次? ① 多到数不清 ② 10-50 次 ③ 少于 10 次

(3) 哪些人对你做过这些行为? (可多选)

① 母亲 ② 父亲 ③ 继母 ④ 继父 ⑤ 爷爷/外公 ⑥ 奶奶/外婆

⑦ 兄弟姐妹 ⑧ 老师 ⑨ 其他 (请注明_____)

(4) 这对你造成的伤害: ① 非常严重 ② 严重 ③ 轻微 ④ 一点也不

5. 在你 18 岁以前, 是否有人用刀或者利器刺伤、砍伤你?

① 是 ② 否 (请跳到问题 6) ③ 不记得 (请跳到问题 6)

(1) 如发生过, 在哪个年龄阶段? (可多选)

① 5 岁以前 ② 5-9 岁 ③ 10-13 岁 ④ 14-17 岁 ⑤ 不记得

(2) 如发生过, 发生过多少次? ① 多到数不清 ② 10-50 次 ③ 少于 10 次

(3) 哪些人对你做过这些行为? (可多选)

① 母亲 ② 父亲 ③ 继母 ④ 继父 ⑤ 爷爷/外公 ⑥ 奶奶/外婆

⑦ 兄弟姐妹 ⑧ 老师 ⑨ 其他 (请注明_____)

(4) 这对你造成的伤害: ① 非常严重 ② 严重 ③ 轻微 ④ 一点也不

6. 在你 18 岁以前, 是否有人故意烧伤、烫伤 (如用烟头) 或扎伤 (如用针) 你?

① 是 ② 否 (请跳到问题 7) ③ 不记得 (请跳到问题 7)

(1) 如发生过, 在哪个年龄阶段? (可多选)

① 5 岁以前 ② 5-9 岁 ③ 10-13 岁 ④ 14-17 岁 ⑤ 不记得

(2) 如发生过, 发生过多少次? ① 多到数不清 ② 10-50 次 ③ 少于 10 次

(3) 哪些人对你做过这些行为? (可多选)

① 母亲 ② 父亲 ③ 继母 ④ 继父 ⑤ 爷爷/外公 ⑥ 奶奶/外婆

⑦ 兄弟姐妹 ⑧ 老师 ⑨ 其他 (请注明_____)

(4) 这对你造成的伤害： ① 非常严重 ② 严重 ③ 轻微 ④ 一点也不

7. 在你 18 岁以前，是否有人罚你，如罚跪、罚站、不让吃饭等？

① 是 ② 否（请跳到问题 8） ③ 不记得（请跳到问题 8）

(1) 如发生过，在哪个年龄阶段？（可多选）

① 5 岁以前 ② 5-9 岁 ③ 10-13 岁 ④ 14-17 岁 ⑤ 不记得

(2) 如发生过，发生过多少次？ ① 多到数不清 ② 10-50 次 ③ 少于 10 次

(3) 哪些人对你做过这些行为？（可多选）

① 母亲 ② 父亲 ③ 继母 ④ 继父 ⑤ 爷爷/外公 ⑥ 奶奶/外婆
⑦ 兄弟姐妹 ⑧ 老师 ⑨ 其他（请注明_____）

(4) 这对你造成的伤害： ① 非常严重 ② 严重 ③ 轻微 ④ 一点也不

8. 很多小孩子有过被打的经历，或者有些人采用一些方式故意伤害小孩子。这也可能发生过在你的身上。总的来说，你现在认为你的童年生活是怎样的？（单选）

① 我从未被人伤害过

② 当我被打时，通常是为了管教我，而且是合理的或事出有因的

③ 当我被打时，通常是为了管教我，但并不是合理或者事出有因的

④ 当我被打时，通常不是为了管教我，而且并不是合理或者事出有因的

9. 总的来说，在你 18 岁以前，相比当时同龄的小伙伴，你身体受到伤害（被打或其他方式）的情况是怎样的？

① 比大部分同龄人少很多

② 比大部分同龄人少一些

③ 和大部分同龄人差不多

④ 比大部分同龄人多一些

⑤ 比大部分同龄人多很多

在小孩子成长的过程中，有时会发生一些事情，让他们觉得很害怕或者担心，也会发生一些事情让他们觉得很尴尬、羞愧，或者让他们觉得没有人爱他们。请认真想想在你 18 岁以前，下面的这些事情是否发生在你身上，并在相应的选项下划“√”。

10. 在你 18 岁以前，是否有人不理你、拒绝和你说话，让你觉得受伤？

① 是 ② 否（请跳到问题 11） ③ 不记得（请跳到问题 11）

(1) 如发生过，在哪个年龄阶段？（可多选）

① 5 岁以前 ② 5-9 岁 ③ 10-13 岁 ④ 14-17 岁 ⑤ 不记得

(2) 如发生过，发生过多少次？ ① 多到数不清 ② 10-50 次 ③ 少于 10 次

(3) 哪些人对你做过这些行为？（可多选）

① 母亲 ② 父亲 ③ 继母 ④ 继父 ⑤ 爷爷/外公 ⑥ 奶奶/外婆
⑦ 兄弟姐妹 ⑧ 老师 ⑨ 其他（请注明_____）

(4) 这对你造成的伤害： ① 非常严重 ② 严重 ③ 轻微 ④ 一点也不

11. 在你 18 岁以前，是否有人批评你、骂你、羞辱你，让你感觉自己很差、很笨或很没用？

① 是 ② 否（请跳到问题 12） ③ 不记得（请跳到问题 12）

(1) 如发生过，在哪个年龄阶段？（可多选）

① 5 岁以前 ② 5-9 岁 ③ 10-13 岁 ④ 14-17 岁 ⑤ 不记得

- (2) 如发生过, 发生过多少次? ①多到数不清 ②10-50次 ③少于10次
- (3) 哪些人对你做过这些行为? (可多选)
①母亲 ②父亲 ③继母 ④继父 ⑤爷爷/外公 ⑥奶奶/外婆
⑦兄弟姐妹 ⑧老师 ⑨其他(请注明_____)
- (4) 这对你造成的伤害: ①非常严重 ②严重 ③轻微 ④一点也不

12. 在你18岁以前, 是否有人说过没有人爱你或在乎你, 或者你不值得被爱?

- ①是 ②否(请跳到问题13) ③不记得(请跳到问题13)
- (1) 如发生过, 在哪个年龄阶段? (可多选)
①5岁以前 ②5-9岁 ③10-13岁 ④14-17岁 ⑤不记得
- (2) 如发生过, 发生过多少次? ①多到数不清 ②10-50次 ③少于10次
- (3) 哪些人对你做过这些行为? (可多选)
①母亲 ②父亲 ③继母 ④继父 ⑤爷爷/外公 ⑥奶奶/外婆
⑦兄弟姐妹 ⑧老师 ⑨其他(请注明_____)
- (4) 这对你造成的伤害: ①非常严重 ②严重 ③轻微 ④一点也不

13. 在你18岁以前, 是否有人说过希望你死掉或后悔生下你?

- ①是 ②否(请跳到问题14) ③不记得(请跳到问题14)
- (1) 如发生过, 在哪个年龄阶段? (可多选)
①5岁以前 ②5-9岁 ③10-13岁 ④14-17岁 ⑤不记得
- (2) 如发生过, 发生过多少次? ①多到数不清 ②10-50次 ③少于10次
- (3) 哪些人对你做过这些行为? (可多选)
①母亲 ②父亲 ③继母 ④继父 ⑤爷爷/外公 ⑥奶奶/外婆
⑦兄弟姐妹 ⑧老师 ⑨其他(请注明_____)
- (4) 这对你造成的伤害: ①非常严重 ②严重 ③轻微 ④一点也不

14. 在你18岁以前, 是否有人威胁要伤害你?

- ①是 ②否(请跳到问题15) ③不记得(请跳到问题15)
- (1) 如发生过, 在哪个年龄阶段? (可多选)
①5岁以前 ②5-9岁 ③10-13岁 ④14-17岁 ⑤不记得
- (2) 如发生过, 发生过多少次? ①多到数不清 ②10-50次 ③少于10次
- (3) 哪些人对你做过这些行为? (可多选)
①母亲 ②父亲 ③继母 ④继父 ⑤爷爷/外公 ⑥奶奶/外婆
⑦兄弟姐妹 ⑧老师 ⑨其他(请注明_____)
- (4) 这对你造成的伤害: ①非常严重 ②严重 ③轻微 ④一点也不

15. 在你18岁以前, 是否有人吓唬要打你, 但没有真打?

- ①是 ②否(请跳到问题16) ③不记得(请跳到问题16)
- (1) 如发生过, 在哪个年龄阶段? (可多选)
①5岁以前 ②5-9岁 ③10-13岁 ④14-17岁 ⑤不记得
- (2) 如发生过, 发生过多少次? ①多到数不清 ②10-50次 ③少于10次

- (3) 哪些人对你做过这些行为? (可多选)
 ① 母亲 ② 父亲 ③ 继母 ④ 继父 ⑤ 爷爷/外公 ⑥ 奶奶/外婆
 ⑦ 兄弟姐妹 ⑧ 老师 ⑨ 其他 (请注明_____)
- (4) 这对你造成的伤害: ① 非常严重 ② 严重 ③ 轻微 ④ 一点也不
16. 在你 18 岁以前, 是否有人威胁要遗弃你, 或者把你赶出家门?
 ① 是 ② 否 (请跳到问题 17) ③ 不记得 (请跳到问题 17)
- (1) 如发生过, 在哪个年龄阶段? (可多选)
 ① 5 岁以前 ② 5-9 岁 ③ 10-13 岁 ④ 14-17 岁 ⑤ 不记得
- (2) 如发生过, 发生过多少次? ① 多到数不清 ② 10-50 次 ③ 少于 10 次
- (3) 哪些人对你做过这些行为? (可多选)
 ① 母亲 ② 父亲 ③ 继母 ④ 继父 ⑤ 爷爷/外公 ⑥ 奶奶/外婆
 ⑦ 兄弟姐妹 ⑧ 老师 ⑨ 其他 (请注明_____)
- (4) 这对你造成的伤害: ① 非常严重 ② 严重 ③ 轻微 ④ 一点也不
17. 很多小朋友在成长的过程中都有被他人威胁或者羞辱的经历, 这也可能发生过在你的身上。总的来说, 你现在认为你的童年生活是怎样的? (单选)
 ① 我从未被人羞辱或者威胁
 ② 当我被羞辱或者威胁时, 通常是为了管教我, 而且是合理的或事出有因的
 ③ 当我被羞辱或者威胁时, 通常是为了管教我, 但并不是合理或者事出有因的
 ④ 当我被羞辱或者威胁时, 通常不是为了管教我, 而且并不是合理或者事出有因的
18. 总的来说, 在你 18 岁以前, 相比当时同龄的小伙伴, 你被他人羞辱或者威胁的情况是怎样的?
 ① 比大部分同龄人少很多 ② 比大部分同龄人少一些 ③ 和大部分同龄人差不多
 ④ 比大部分同龄人多一些 ⑤ 比大部分同龄人多很多

问卷完成后, 请检查是否有漏填题目。

如没有, 请将问卷放进讲台旁的纸箱, 谢谢合作!

Appendix 6-1 Information Sheet/Invitation Letter for Questionnaire Survey with Parents

A. English Version

Information Sheet for Parents in Quantitative Studies

You will be given a copy of this information sheet.

Title of Project: **An Exploration of Child Discipline in China**

This study has been approved by the UCL Research Ethics Committee (Project ID Number): 5279/001

Name	Yanyan Ni
Work Address	UCL Institute for Global Health Institute of Child Health 30 Guilford Street, London WC1N 1EH
Contact Details	yanyan.ni.13@ucl.ac.uk

We would like to invite you to participate in this research project.

Details of Study:

We all know that parenting is very important for children's physical and mental development and may differ among families. We hope to understand your way of child discipline and your views on disciplinary acts applied by other parents. We will use the information you give us to help to inform policy on child protection in China. We hope you will find this an interesting experience and it may give you some insights into problems that you may not have considered before.

You will be invited to fill in a questionnaire and it will take you about twenty minutes to complete all the questions. This is not a test. There is no right or wrong answer, just say what you think. If you don't feel comfortable with answering a question, just don't answer.

The information that we collect from you is confidential and anonymous. You don't need to write your name and no one will know what you have written. Summaries of relevant findings will be shared with you through the website of the School of Public Health, Zhejiang University.

It is up to you to decide whether to take part or not; choosing not to take part will not disadvantage you in any way. If you do wish to participate, please sign the consent form that we will give you later. It is important for you to know that even if you take part in the study and you sign the consent form you can still stop at any time without giving a reason.

All data will be collected and stored in accordance with the Data Protection Act 1998.

儿童管教方式问卷调查

——家长邀请函

尊敬的家长，

您好！我们诚挚地邀请您参与我们的调查项目——儿童管教方式问卷调查。众所周知，父母的管教方式对子女的身心健康发展至关重要，而且每个家庭各有不同。我们希望了解您对子女的管教方式，以及您对当前国内父母常用管教方式的看法。您所提供的信息将会为决策者完善中国儿童保护体系提供参考意见。

此次调查是不记名的，请如实填写您的个人经历及看法，调查结果将仅用于科研分析，我们承诺会保护您的个人隐私。问卷填写需要 10-15 分钟，请耐心等待！

参与方法：

1. 请直接填写信封内所附调查问卷。
2. 问卷完成之后，请您将问卷装回信封，然后交给您的孩子，由他/她带回学校。
3. 每份问卷封面都有一个编码，我们将利用该编码进行抽奖，请您记下自己的问卷编码。

温馨提示：如果您想咨询儿童管教方式相关问题，或者您在填写过程中遇到任何问题，请通过以下方式联系我们（电话：_____，微信号：_____）。

浙江大学
公共卫生学院社会医学研究所

2015年5月13日

儿童管教方式问卷调查

——家长邀请函

尊敬的家长，

您好！我们诚挚地邀请您参与我们的调查项目——儿童管教方式问卷调查，该项目在浙江大学公共卫生学院支持下开展。众所周知，父母的管教方式对子女的身心健康发展至关重要。我们希望了解当您对子女的管教方式，以及您对当前国内父母常用管教方式的看法。此次调查是不记名的，请如实填写您的个人经历及看法，调查结果将仅用于科研分析，我们承诺会保护您的个人隐私。问卷填写需要 10-15 分钟，请耐心等待！

参与方法：

1. 您可以打开电脑，输入以下网址，完成问卷的填写。

www.surveymonkey.com/s/zjucps

2. 您也可以用手机扫描以下二维码，完成问卷的填写。



3. **注意事项：**问卷填写时，您需要一个六位数的问卷填写编码（可见邀请函右上方）。

温馨提示：如果您想咨询儿童管教方式相关问题，或者您在填写过程中遇到任何问题，请通过以下方式联系我们（电话：_____，微信号：_____）。

浙江大学
公共卫生学院社会医学研究所

2015 年 5 月 13 日

Appendix 6-2 Consent Form for Questionnaire Survey with Parents

A. English Version

Informed Consent Form for Parents in Quantitative Studies

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

Title of Project: **An Exploration of Child Discipline in China**

This study has been approved by the UCL Research Ethics Committee (Project ID Number): 5279/001

Thank you for your interest in taking part in this research. Before you agree to take part, the person organising the research must explain the project to you.

If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you to decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

Participant's Statement

I

- have read the notes written above and the Information Sheet, and understand what the study involves.
- understand that if I decide at any time that I no longer wish to take part in this project, I can notify the researchers involved and withdraw immediately.
- agree to the processing of my personal information for the purposes of this research study.
- agree that the research project named above has been explained to me to my satisfaction and I agree to take part in this study.

Signed:

Date:

A. Chinese Version

项目名称：探索中国式父母管教方式

知情同意书

非常感谢您愿意参与我们的研究。在您同意参加之前，负责这次调查的人必须向您解释该研究项目的相关信息。知情同意书一式两份，一份交给您保存，一份由我们保管。

如果您同意参加，请在下面的框中划‘v’：

- 我已经阅读信息表中所写内容，了解该研究项目的内容。
- 我了解如果我中途决定不再参与研究，可以不需要任何理由直接提出，并且立即退出。
- 我同意将我的个人数据用于科学研究。
- 我同意上述研究项目已被清楚解释，并且我同意参加该研究。

签名： _____

日期： _____

Appendix 6-3 Questionnaire – Parent’s Version

A. English Version

Number:

Parent Questionnaire :

Parenting and discipline in the home

Part A Please tell us some basic information about the child who brings the questionnaire home

1. Child’s Gender? ① Boy ② Girl
2. Child’s Date of Birth ____ / ____ / ____ (day/month/year)
3. Child’s School: _____
4. Child’s Grade: _____
5. Boarding? ① Yes ② No
6. How many children do you have? _____
7. Does (index child) have developmental disability? ① Yes ② No
8. Compared to other children of the same age, how would you describe (index child)’s health? ① Excellent ② Good ③ Fair ④ Poor
9. What is the relationship that YOU have to this child?
① Mother ② Father ③ Stepmother ④ Stepfather ⑤ Foster mother
⑧ Foster father ⑨ Sister ⑩ Brother ⑪ Grandmother
⑫ Grandfather ⑬ Others (e.g. aunt, cousin) (Please specify: _____)
10. Who else lives in the same house with the child (on the basis of their relationship to the child)? (please, check all that apply)
① Mother ② Father ③ Stepmother ④ Stepfather ⑤ Foster mother
⑧ Foster father ⑨ Sister ⑩ Brother ⑪ Grandmother
⑫ Grandfather ⑬ Others (e.g. aunt, cousin) (Please specify: _____)
11. Who else lives in the same house with the child (not including yourself) living in the care for (index child)?
① Mother ② Father ③ Stepmother ④ Stepfather ⑤ Foster mother
⑧ Foster father ⑨ Sister ⑩ Brother ⑪ Grandmother
⑫ Grandfather ⑬ Others (e.g. aunt, cousin) (Please specify: _____)

Part B Child discipline and punishment

All adults use certain methods to teach children the right behaviour or to address a behavior problem. Various methods that might be used and we would like you to tell us how often you have used this with your child in the last year. **Tell us if you [or your husband/partner] have done this to your child in the last year: more than 50 times; 13-50 times; 6-12 times; 3-5 times; once or twice; never.** If you have not done this in the past year but have done this previously, please indicate this.

Now the first two items are example questions to show how to fill in the form:

- (1) *Example1: I refused to speak to my child when he/she did something wrong, and it happened 3-5 times in the past year, then I put X in that box; furthermore, my partner did this to the child as well and it happened once, so I put X in that box.*
- (2) *Example2: I never slapped my child on his/her face when he/she misbehaved, so I put X in that box. Since I don't have the other partner, I just leave the second column blank.*

Note: These are just two examples to show how to fill in the form. You can still have different answers. This is not a test. There is not right or wrong answer. We are just interested in your personal experiences.

Disciplinary Acts	≥ 50 times	13-50	6-12	3-5	1-2	Not in the past year, but it has happened before	Never
	Once a week or more often	Several times a month	Monthly or bimonthly	Several times a year	Once or twice a year		
<i>Example1: Refused to speak to him/her</i>				X			
<i>Example2: Slapped on his/her face</i>							X
1. Explained him/her why something he/she did was wrong							
2. Give him/her a reward for behaving well							
3. Told him/her to start or stop doing something							
4. Shook him/her aggressively							
5. Hit him or her on the bottom with an object such as a stick, broom, cane, or belt							
6. Hit elsewhere (not bottom) with an object such as a stick, broom, cane, or belt							
7. Gave him/her something else to do (in order to stop or change behaviour)							

<i>Disciplinary Acts</i>	≥ 50 times	13-50	6-12	3-5	1-2	Not in the past year, but it has happened before	Never
	Once a week or more often	Several times a month	Monthly or bimonthly	Several times a year	Once or twice a year		
8. Twisted his/her ear							
9. Hit him/her on head with knuckles							
10. Pulled his/her hair							
11. Threatened to leave or abandon him/her							
12. Shouted, yelled, or screamed at him/her							
13. Threatened to invoke harmful people against him/her, ghosts, or evil spirits							
14. Kicked her/him							
15. Put chili pepper, hot pepper, or spicy food in his/her mouth (to cause pain)							
16. Forced him or her to hold a position that caused pain (i.e. standing/kneeling)							
17. Cursed him/her							
18. Spanked him/her on the bottom with bare hand							
19. Choked him/her to prevent breathing							
20. Put him/her in time-out							
21. Locked out of home							
22. Took away privileges or money							
23. Forbade him or her from going out							
24. Pinched him/her to cause pain							
25. Insulted him/her by calling [name] stupid, lazy, or other names like that							
26. Slapped on face or back of head							
27. Refused to speak to him/her or ignored him/her							

<i>Disciplinary Acts</i>	≥ 50 times	13-50	6-12	3-5	1-2	Not in the past year, but it has happened before	Never
	Once a week or more often	Several times a month	Monthly or bimonthly	Several times a year	Once or twice a year		
28. Blamed him/her for your misfortune							
29. Threatened to hurt or kill her/him							
30. Burned or scalded or punctured him/her							
31. Hit him or her over and over again with object or fist ("beat-up")							
32. Locked him/her in his or her room							
33. Tied him/her to restrict movement							
34. Withheld a meal as punishment							
35. Used public humiliation to discipline him or her							
36. Said you would send him/her away or kick him/her out of the house							
37. Told them you wished they were dead or had never been born							
38. Threatened to spank or hit him/her but did not actually do it							
39. Slapped him/her on the hand, arm, or leg							
40. Hit him/her with a fist							
41. Threw or knocked him/her down							
42. Threatened him/her with a knife							
43. Pressed his/her head under water							
44. Used sharp objects, like a knife and broken glass, to hurt him/her							
45. Used a hand or pillow to prevent breathing (smother)							

Part C Additional Questions

1. *Is it necessary to physically punish children in order to raise/educate them properly?*
① Yes ② No ③ Not sure
2. *Is it reasonable for parents or carers to punish children after you did something wrong?*
① Yes ② No ③ Not sure
3. *Do you think that corporal punishment is effective as a method of children's discipline?*
① No, it is never effective ② Most of the times it is not effective
③ Most of the times it is effective ④ Yes, it is always effective

Part D These questions refer to parents' demographic information

1. **Sex:** ① Male ② Female
2. **Age:** _____ years old
3. **Permanent residence:** ① Urban area ② Rural area
4. **Education:**
① Didn't finish primary school ② Primary school ③ Middle school
④ High school ⑤ University graduate ⑥ Post-graduate studies
5. **Do you work?**
① Yes ② No ③ Retired ④ Others(Please specify_____)
6. **Marital status:**
① Married ② Separated ③ Divorced
④ Widowed ⑤ Remarried ⑥ Other (Please indicate_____)
7. Do you have any disability? ① Yes ② No
8. How would you describe your own health?
① Excellent ② Good ③ Fair ④ Poor
9. When you were growing up, did you experience physical maltreatment (i.e., being hit by hand or with implements, kicking or being forced to stand or kneel)?
① Yes ② No
10. When you were growing up, did you experience emotional maltreatment (i.e., being severely criticised, insulted, cursed, physically threatened or threatened with abandonment)?
① Yes ② No
11. How do you think of the economic status of your family in your own community?
① Excellent ② Good ③ Fair ④ Poor ⑤ Very poor
12. Do you gamble? ① Always ② Often ③ Occasional ④ Never ⑤ Quit
13. a. Do you smoke? ① Yes, I smoke ② No, I quit ③ Never
b. If yes, how many cigarettes do you smoke every day in the past year? _____
14. a. Do you drink alcohol? ① Yes, I drink alcohol ② No, I quit ③ Never
b. If yes, how much alcohol do you drink every day in the past year? _____

Part E Using this 5 point scale, indicate how uncharacteristic or characteristic each of the following statements is in describing you.

Items	Extremely uncharacteristic	Somewhat uncharacteristic	Neither uncharacteristic nor characteristic	Somewhat characteristic	Extremely characteristic
1: Given enough provocation, I may hit another person.					
2: I often find myself disagreeing with people.					
3: At times I feel I have gotten a raw deal out of life.					
4: There are people who have pushed me so far that we have come to blows.					
5: I can't help getting into arguments when people disagree with me.					
6: Sometimes I fly off the handle for no good reason.					
7: Other people always seem to get the breaks.					
8: I have threatened people I know.					
9: My friends say that I'm somewhat argumentative.					
10: I have trouble controlling my temper.					
11: I wonder why sometimes I feel so bitter about things.					
12: I sometimes feel like a powder keg ready to explode.					

B. Chinese Version

当您的子女表现不好时，您是怎么管教他/她的？

尊敬的家长，您好！非常感谢您参与我们的问卷调查。

在开始填写问卷之前，**请先阅读以下填写说明：**

1. 此次调查是不记名的，请**如实填写**您的个人经历及看法；
2. **答案没有对错之分**，请填写个人真实经历及看法；
3. 如果您有多个孩子，**调查问卷中提到的孩子是指让您填写问卷的这个孩子**；
4. 如果孩子的父母不在身边，可由孩子的照顾者填写；

第一部分 请告诉我们关于您孩子的一些信息(在相应的选项划“√”)

15. 孩子的性别？ ① 男孩 ② 女孩
16. 孩子出生年月：_____年____月
17. 孩子就读学校：_____省_____市_____区（县）_____镇_____学校
18. 孩子就读年级：_____
19. 孩子是否住校？ ① 是 ② 否
20. a. 是否为独生子女？ ① 是（请跳到问题7） ② 否
b. 如为“否”，他/她有_____个兄弟姐妹（不包括他/她自己）；家中排行第_____（填写数字）。
21. 这个孩子是否有残疾（包括智力、身体缺陷）？ ① 有 ② 无
22. 相比同龄儿童，您觉得他/她的健康状况如何？ ① 很好 ② 好 ③ 一般 ④ 差
23. 您和这个孩子的关系是？（单选）
① 母亲 ② 父亲 ③ 奶奶/外婆 ④ 爷爷/外公 ⑤ 姐姐 ⑥ 哥哥 ⑦ 继母
⑧ 继父 ⑨ 养父 ⑩ 养母 ⑪ 其他(请说明_____)
24. 和这个孩子住在一起的都有哪些人？（可多选）
① 母亲 ② 父亲 ③ 奶奶/外婆 ④ 爷爷/外公 ⑤ 姐姐/妹妹 ⑥ 哥哥/弟弟
⑦ 继母 ⑧ 继父 ⑨ 养母 ⑩ 养父 ⑪ 其他(请说明_____)
25. 和孩子住在一起的这些人，有哪些人会照顾孩子？（照顾包括日常管教和照顾孩子生活起居）。
① 母亲 ② 父亲 ③ 奶奶/外婆 ④ 爷爷/外公 ⑤ 姐姐/妹妹 ⑥ 哥哥/弟弟
⑦ 继母 ⑧ 继父 ⑨ 养母 ⑩ 养父 ⑪ 其他(请说明_____)

第二部分 管教子女经历 (在相应的框里面划‘√’)

请回答您在过去一年中使用下列方式对待子女的次数：**≥ 50 次、13-50 次、6-12 次、3-5 次、1-2 次**。如果您在过去的一年没有这么做过，**但是以前有过**，请在相应的框里面划‘√’。如果您从来没有做过，也请在相应的框里面划‘√’。现在我们给出两个例子来说明填表要求：

例 1：过去一年中，我曾骂我的孩子笨，这发生过 3-5 次，所以我在相应的框里划‘√’。

例 2：过去一年中，我从来没有踢过我的孩子，而且以前也没有发生过，所以我在“从来没有”那个框里面划‘√’。

- **注意：这只是说明表格填写的两个例子，不同的人会有不同的经历，你可以有完全不同的答案。**

序号	管教方式	≥ 50 次	13-50 次	6-12 次	3-5 次	1-2 次	过去一年没有,以前有过	从来没有
		一周 1 次及以上	一个月 1-4 次	一个月 1 次或两个月 1 次	一年 3-5 次	一年 1-2 次		
0	例 1: 骂他笨				√			
	例 2: 用脚踢他							√
1	向他/她解释为什么他/她做错了							
2	表现好时奖励他/她							
3	告诉他/她去做或不要再做某件事情							
4	激烈摇晃他/她							
5	用工具（如皮带、衣架、棍子、扫帚、尺子等）打他/她的屁股							
6	用工具（如皮带、衣架、棍子、扫帚、尺子等）打他/她屁股以外的部位							
7	让他/她改做其他事（以停止或纠正不良行为）							
8	拧他/她的耳朵							
9	用指关节敲打头部							
10	拽他/她的头发							

序号	管教方式	≥ 50 次	13-50 次	6-12 次	3-5 次	1-2 次	过去一年没有,以前有过	从来没有
		一周 1 次及以上	一个月 1-4 次	一个月 1 次或两个月 1 次	一年 3-5 次	一年 1-2 次		
11	威胁要离开或者遗弃他/她							
12	冲他/她大喊大叫							
13	用坏人、鬼、警察等让他/她感觉害怕的人物来吓唬他/她（例如，如果不听话，就会被坏人抓走）							
14	用脚踢他/她							
15	把很辣的东西塞进他/她的嘴里，以致疼痛							
16	让他/她长时间保持一个会引起疼痛的姿势，如罚跪、罚站							
17	咒骂他/她							
18	徒手打他/她的屁股							
19	掐他/她脖子，让他/她喘不过气							
20	让他/她自己去一边反省（例如角落或其它房间），直到你说可以了为止							
21	锁在门外							
22	没收个人特权，不让他/她做自己喜欢的事情（例如不让看电视、不让玩电脑或减少零花钱）							
23	不准出门							
24	捏痛或掐痛他/她							
25	骂他/她懒、笨或其它等							
26	扇他/她的脸、头、嘴巴等部位							

序号	管教方式	≥ 50 次	13-50 次	6-12 次	3-5 次	1-2 次	过去一年没有,以前有过	从来没有
		一周 1 次及以上	一个月 1-4 次	一个月 1 次或两个月 1 次	一年 3-5 次	一年 1-2 次		
27	拒绝和他/她讲话, 不理他/她							
28	把自己的不幸遭遇怪罪于他/她							
29	威胁要伤害他/她							
30	故意烫伤、烧伤(如用烟头)或扎伤(如用针)他/她							
31	殴打他/她							
32	将他/她锁在房间							
33	将他/她锁起来或捆起来, 限制他/她的活动							
34	不让他/她吃饭							
35	在众人面前让他/她难堪							
36	威胁要把他/她送走或者赶出家门							
37	说希望他/她死掉或后悔生下他/她							
38	吓唬要打他/她, 但没有真打							
39	徒手打他/她的手、胳膊或腿							
40	用拳头打他/她							
41	将他/她推倒或推翻在地							
42	用刀或利器吓他/她							
43	用刀、碎玻璃等利器刺伤他/她							
44	把他/她的头按在水里							
45	用手或枕头让他/她无法呼吸							
46	其它: _____							

第三部分 其他问题

1. 您觉得抚养或教育孩子，体罚（包括打、罚等）是必要的吗？
①是 ②否 ③不确定
2. 您觉得当孩子表现不好或做错事时，体罚孩子（包括打、罚等）是合理的吗？
①是 ②否 ③不确定
3. 您觉得体罚（包括打、罚等）是一种有效的管教方式吗？
①总是无效的 ②有时候是有效的 ③大多数是有效的 ④总是有效的

第四部分 基本信息，请根据您的实际情况填写

1. 您的性别： ①男 ②女
2. 您的出生年月： _____年____月
3. 您的住址： _____省_____市_____区（县）_____镇
4. 您的户口类型： ①城市 ②农村
5. 您的文化水平： ①小学以下 ②小学 ③初中 ④高中/中专 ⑤大学/大专 ⑥硕士及以上
6. 您的工作状况：
①在业（职业是_____） ②无业/失业 ③退休 ④其他（请说明_____）
7. 您的婚姻状况：
①已婚 ②分居 ③离异 ④丧偶 ⑤再婚 ⑥其他（请说明_____）
8. 您是否有身体残疾？ ①有 ②无
9. 总体来说，您的健康状况如何？ ①很好 ②好 ③一般 ④差
 - a. 在 18 岁以前，您是否挨过打或罚（包括徒手打你、用工具打你或者踢你、罚跪罚站等）？ ①是 ②否
 - b. 如为“是”，发生过多少次？ ①多到数不清 ②10-50 次 ③少于 10 次
10. a. 在 18 岁以前，您是否挨过骂（包括批评你、侮辱你、说后悔生下你、威胁要伤害你、威胁要抛弃你等）？ ①是 ②否
 - b. 如为“是”，发生过多少次？ ①多到数不清 ②10-50 次 ③少于 10 次
11. 您的家庭经济状况在当地处于哪个水平？
①高水平 ②中上水平 ③中等水平 ④中下水平 ⑤低水平
12. 您是否赌博？ ①总是 ②经常 ③偶尔 ④从不 ⑤已戒赌
13. a. 您是否吸烟？ ①是 ②已戒烟 ③从不吸烟
 - b. 如为“是”，最近一年您平均每天吸_____支烟。（请填写数字）
14. a. 您是否饮酒？ ①是 ②已戒酒 ③从不喝酒
 - b. 如为“是”，您平均每天饮酒的量相当于_____饮酒单位。（请填写数字）
(1 两 40 度及以上白酒=2; 1 两 40 度以下白酒=1.5; 1 斤葡萄酒=5; 1 瓶啤酒=2; 1 听啤酒=1; 1 斤黄酒=6.5)

第六部分 最后，请完成以下问题

请根据以下每一个题目的描述，选择自己符合的程度

- 1.当我和别人意见不一致时我会忍不住与他们争论
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 2.有时候我会想为什么自己会对一些事情特别仇视（痛恨）
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 3.我威胁过我认识的人
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 4.我很容易发脾气但是也会很快恢复平静
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 5.把我惹火了，我可能会打人
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 6.有时我觉得自己受到了不公正的待遇
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 7.我很难控制自己的脾气
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 8.我发现我经常和别人的意见不和
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 9.其他人看起来总是比我幸运
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 10.要是有人狠狠地推了我一把，我就会与他打起来
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 11.我的朋友说我有些较真
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合
- 12.有时我会莫名的发火
①非常不符合 ②部分不符合 ③不确定 ④部分符合 ⑤非常符合

问卷完成之后，请仔细检查是否有漏填题目。如果您已经完成了问卷上的所有问题，请您将问卷交给孩子，由他/她带回学校。非常感谢您的配合！

Appendix 7-1 Information Sheet and Questionnaire – Child’s Version

A. English Version

Information Sheet for Children in Quantitative Studies

Title of Project: **An Exploration of Child Discipline in China**

This study has been approved by the UCL Research Ethics Committee (Project ID Number): 5279/001

Name	Yanyan Ni
Work Address	UCL Institute for Global Health Institute of Child Health 30 Guilford Street, London WC1N 1EH
Contact Details	yanyan.ni.13@ucl.ac.uk

We would like to invite you to participate in this research project.

Details of Study: We all know that home is supposed to be a warm and safe place for every child. But sometimes things that make you feel uncomfortable or upset also will happen inside the family. We want to ask you about things that have happened to you in the past year. Also, we will ask what you think about different kinds of disciplinary acts.

We will give you a questionnaire and all you need to do is to fill in all the answers. It will take you about twenty minutes. Some questions may seem strange or hard to answer. Please try to answer them as best you can, thinking about the past year. It is not a test. There is not right or wrong answer, just say what you remember happened to you and what you think.

If you don’t understand, there will be someone to help you. If you don’t feel comfortable with answering a question, just don’t answer. If you don’t want to continue, you can stop at any point without giving a reason.

If the questions have made you think about things that worry you and you want to discuss these with someone– either phone the number on the form or tell the person who organized this.

We won’t record your name, so no one will know what you have said.

It is up to you to decide whether to take part or not; choosing not to take part will not disadvantage you in any way. If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form.

What did parents and carers do when you didn't behave right?

We all know that no one is perfect. Children often do things that are wrong, they may disobey, or make their parents or carers angry. We would like to know what your parents or carers did when you misbehaved. This is an important problem for children in all parts of the world. Also, we will ask what you think about different kinds of disciplinary acts. We won't record your name, so no one will know what you have said.

Part A Please tell us about yourself

1. Please tell us if you are a girl or a boy. ① Girl ② Boy
2. Your date of birth: ____/____(please, write only the month and year)
3. What is the name of the school you attend? _____
4. Residence: ① Urban area ② Rural area
5. a. Do you have any sibling? ① Yes ② No
b. If your answer is yes, can you tell us how many siblings you have? _____
6. Who do you live with? (you can choose more than one options)
① Mother ② Father ③ Stepmother ④ Stepfather ⑤ Foster mother ⑧ Foster father
⑨ Sister ⑩ Brother ⑪ Grandmother ⑫ Grandfather ⑬ Others (Please specify: _____)
7. Mother's education:
① Primary school or below ② Middle school ③ High school ④ University or above
Father's education:
① Primary school or below ② Middle school ③ High school ④ University or above
8. Parental marital status:
① Married ② Separated/divorced ③ Widowed ④ Remarried ⑤ Other (Please indicate ____)
9. How do you think of the economic status of your family in your own community?
① Excellent ② Good ③ Fair ④ Poor ⑤ Very poor
10. Do you always feel safe in your family? ① Always ② Usually ③ Few times ④ Never
11. Has anyone in your home used alcohol and then behaved in a way that frightened you?
① Yes ② No
12. Have you seen adults in your home shouting and screaming in a way that frightened you?
① Yes ② No
13. Have you seen adults in your home hurt each other physically (e.g. hitting, slapping, and kicking)?
① Yes ② No
14. Have you seen adults in your home used knives, guns, stick, rocks or other things to hurt or scare someone else inside home? ① Yes ② No
15. Sometimes even children or young people, who are your age and live at the same home with you, can also be very unkind and make you feel ashamed, embarrassed, or generally bad about yourself in the past year. Have you been mistreated or bullied by another child at home? ① Yes ② No

Part B Children's experience of discipline and punishment

Now we will ask about your personal experience of discipline and punishment. This is not a test. There is not right or wrong answer, just say what you remember happened to you. We are just interested in your personal experiences. We will ask you about things that have happened to you **in the past year**.

Some questions may seem strange or hard to answer. Please try to answer them as best you can, thinking about the past year. If at any point you feel too uncomfortable to continue you can stop.

Sometimes, when children and adolescents are growing up, they make mistakes, or misbehave. Their parents or other adults may discipline or punish them in different ways.

- (1) Please think about how often people did these things to you in the past year and put X in the box that comes closest to how often they did each of these things .**
- (2) If this happened, please think about who did this to you.**

Put X in the corresponding box. Remember that you only need to answer the second question when it happened before

Now the first two items are example questions to show how to fill in the form:

- (3) Exapmle1: Someone refused to speak to me when I did something wrong, and it happened 3-5 times in the past year, then I put X in that box; furthermore, mom did this to me, so I put X in that box; dad did this as well in the past year, I also put X in the corresponding box.*
- (4) Example2: Someone never slapped me on my face when I misbehaved, so I put X in that box. Since it never happened before, so I don't need to answer the second question.*

Note: These are just two examples to show how to fill in the form. You can still have different answers. This is not a test. There is not right or wrong answer. We are just interested in your personal experiences.

No	Disciplinary Acts	In the past year, how often did people do this to you when you misbehaved?							If this happened, who did this to you?				
		≥ 50 times	13-50	6-12	3-5	1-2	Not in the past year but this has happened	Never	Mom	Dad	Grandparents	Siblings	Other(Please indicate)
		Once a week or more often	Several times a month	Monthly or bimonthly	Several times a year	Once or twice a year							
0	Example1: Refused to speak to you				X				X	X			
	Example2:Slapped on your face					X							
1	Explained why something was wrong												
2	Give you a reward for behaving well												
3	Told you to start or stop doing something												
4	Shook you												
5	Hit you on the bottom with something like belt, hairbrush, a stick or some other hard object												
6	Hit you on some other part of the body besides the bottom with something like a belt, hairbrush, a stick or some other hard object												
7	Gave you something else to do instead of what you were doing wrong (Distract you)												
8	Twisted your ear												
9	Hit you on head with knuckles												
10	Pulled your hair												
11	Threatened to leave you or abandon you												
12	Shouted, yelled, or screamed at you very loud and aggressively												
13	Threatened to invoke harmful people against him/her, ghosts, or evil spirits												
14	Kicked you												
15	Put chili pepper, hot pepper, or spicy food in your mouth (to cause pain)												
16	Forced you to kneel or stand in a manner that results in pain												
17	Said mean things, cursed or swore at you												

No	Disciplinary Acts	In the past year, how often did people do this to you when you misbehaved?						If this happened, who did this to you?					
		≥ 50 times	13-50	6-12	3-5	1-2	Not in the past year but this has happened	Never	Mom	Dad	Grandparents	Siblings	Other(Please indicate)
18	Spanked you on the bottom with the bare hand												
19	Grabbed you around the neck and choked you												
20	Put you in time-out												
21	Locked you out of the home												
22	Took away privileges or money, forbade something you like												
23	Grounded you												
24	Pinched you												
25	Called you stupid or lazy or other names												
26	Slapped on face or back of head												
27	Refused to speak to you or ignored you												
28	Blamed you for their misfortune												
29	Threatened to hurt you												
30	Burned or scalded or punctured you												
31	Beat you up by hitting you over and over as hard as they could												
32	Locked you in your room												
33	Tied you to restrict movement												
34	Withheld a meal as punishment												
35	Used public humiliation to discipline												
36	Said they would send you away or kick you out of the house												
37	Said that they wished you were dead/had never been born												
38	Threatened to spank or hit you but did not actually do it												

No	Disciplinary Acts	In the past year, how often did people do this to you when you misbehaved?						If this happened, who did this to you?					
		≥ 50 times	13-50	6-12	3-5	1-2	Not in the past year but this has happened	Never	Mom	Dad	Grandparents	Siblings	Other(Please indicate)
39	Slapped you on the hand, arm, or leg												
40	Hit you with a fist												
41	Threw or knocked you down												
42	Threatened you with a knife												
43	Pressed your head under water												
44	Used sharp objects, like a knife and broken glass, to hurt you												
45	Used a hand or pillow to prevent breathing (smother)												

Part C Please tell us your feelings and behaviours in the past six months

Items	Not true	Somewhat true	Certainly true
1. I get a lot of headaches, stomach-aches or sickness			
2. I worry a lot			
3. I am often unhappy, down-hearted or tearful			
4. I am nervous in new situations			
5. I have many fears, I am easily scared			
6. I get very angry and often lose my temper			
7. I usually do as I am told			
8. I fight a lot			
9. I am often accused of lying or cheating			
10. I take things that are not mine			

Thank you so much for your help!

If the questions have made you think about things that worry you and you want to discuss these with someone – either phone the number on the information sheet or tell the person who organised this investigation.

B. Chinese Version

亲爱的同学，

你好！非常感谢你愿意参与我们的问卷调查。

我们想知道当你做错事的时候，你的父母或者负责照顾你的人是怎么管教你的，我们也会问你对大人管教方式的看法。此次调查是不记名的，老师和家长都不会知道你填了什么，所以请如实回答下面的问题。这不是考试，答案没有对错之分。问卷完成之后，请将问卷交给发放问卷的人，谢谢你的合作！

如果问卷的某些问题让你想起不开心的事情，你需要找人聊一聊或者寻求一些帮助，你可以直接拨打我们工作人员的电话_____，或者在问卷完成之后直接与发放问卷的人联系。

浙江大学公共卫生学院社会医学研究所
英国伦敦大学学院全球卫生研究所

第一部分 请告诉我们关于你的一些信息(在相应的选项划‘√’)

16. 性别: ①男孩 ②女孩
17. 出生年月: _____年_____月
18. 你是否住校? ①是 ②否
19. 长期居住地: ①城市 ②农村
20. (1). 是否独生子女? ①是(请跳到问题6) ②否
(2). 如为“否”, 你有_个兄弟姐妹, 家中排行第_ (请填写数字, 只算亲兄弟姐妹)。
21. 你和哪些人住在一起? (可多选)
①母亲 ②父亲 ③奶奶/外婆 ④爷爷/外公 ⑤姐姐/妹妹 ⑥哥哥/弟弟 ⑦继母
⑧继父 ⑨养父 ⑩养母 ⑪其他亲戚(请说明_____) ⑫其他人(请说明_____)
22. (1)父亲的文化水平: ①小学以下 ②小学 ③初中 ④高中/中专 ⑤大学/大专 ⑥硕士及以上 ⑦不知道
(2)母亲的文化水平: ①小学以下 ②小学 ③初中 ④高中/中专 ⑤大学/大专 ⑥硕士及以上 ⑦不知道
23. (1)父亲的工作状况: ①在业(职业是_____) ②无业/失业 ③其他(请说明_____)
(2)母亲的工作状况: ①在业(职业是_____) ②无业/失业 ③其他(请说明_____)
24. 你家的经济状况在当地处于哪个水平?
①高水平 ②中上水平 ③中等水平 ④中下水平 ⑤低水平 ⑥不知道
25. 你的家庭状况: ①健全家庭 ②单亲家庭 ③重组家庭 ④其他(请说明_____)
26. 你在家感觉安全吗? ①总是 ②经常 ③偶尔 ④从不
27. 家里是否发生过以下情况:
(1) 有人喝醉, 让你觉得害怕? ①是 ②否
(2) 大人吵架, 让你觉得害怕? ①是 ②否
(3) 大人打架, 让你觉得害怕? ①是 ②否
(4) 大人用木棍、石头或者刀等东西伤害或吓唬其他人? ①是 ②否
28. 过去的一年中, 是否被家中差不多年龄的小孩子(包括兄弟姐妹、表兄弟姐妹等)欺负? ①是 ②否

第二部分 家长对你的管教方式(请在相应的框里面划‘√’)

我们会问你过去的一年中，家长对你的管教方式。答案没有对与错之分，请根据个人真实经历回答。你也许会觉得有些问题比较难回答，但是不要紧张，你只需要想想过去的一年，然后尽自己的最大努力回答就好。开始填写之前，请先阅读以下填表说明：

- (1) 请认真想一想过去的一年中，家长对你做出下列行为的次数：≥50次、13-50次、6-12次、3-5次、1-2次。如果在过去的一年没有发生过，但是以前有过，请在相应的框里面划‘√’。
- (2) 如果从来没有过，也请在相应的框里面划‘√’。
- (3) 填写次数时只需凭印象，选择最接近的类别即可。
- (4) 如果曾经发生过，请告诉我们哪些人对你做过这些行为；如果“从来没有”或“不记得”，则不需要回答第二个问题。

序号	管教方式	(1) 下列行为所发生的次数							(2) 如发生过，哪些人对你做过这些行为？(可多选)					
		≥50次	13-50次	6-12次	3-5次	1-2次	过去一年没有，以前有过	从来没有	不记得	妈妈	爸爸	祖父母	兄弟姐妹	其他(请说明)
		一周1次及以上	一个月1-4次	一个月1次或两个月1次	一年3-5次	一年1-2次								
1	向你解释为什么你做错了													
2	表现好时奖励你													
3	告诉你去做或不要再做某件事情													
4	激烈摇晃你													
5	用工具(如皮带、衣架、棍子、扫帚、尺子等)打你的屁股													
6	用工具(如皮带、衣架、棍子、扫帚、尺子等)打你屁股以外的部位													
7	让你改做其它事(以停止或纠正不良行为)													
8	拧你的耳朵													
9	用指关节敲打你的头部													
10	拽你的头发													

序号	管教方式	(1) 下列行为所发生的次数							(2) 如发生过, 哪些人对你做过这些行为? (可多选)					
		≥50 次	13-50 次	6-12 次	3-5 次	1-2 次	过去一年没有, 以前有过	从来没有	不知道	妈妈	爸爸	祖父母	兄弟姐妹	其他 (请说明)
		一周 1 次及以上	一个月 1-4 次	一个月 1 次或两个月 1 次	一年 3-5 次	一年 1-2 次								
11	威胁要离开你或遗弃你													
12	冲你大喊大叫													
13	用坏人、鬼、警察等让你感觉害怕的人物来吓唬你 (例如, 如果不听话, 就会被坏人抓走)													
14	用脚踢你													
15	把很辣的东西塞进你嘴里, 以致疼痛													
16	让你长时间保持一个会引起疼痛的姿势, 如罚跪、罚站													
17	咒骂你													
18	徒手打你的屁股													
19	掐你脖子, 让你喘不过气													
20	让你自己去一边反省 (例如角落或其它房间), 直到他们说可以了为止													
21	锁在门外													
22	没收个人特权, 不让你做自己喜欢的事情 (例如不让看电视、减少上网时间或减少零花钱)													
23	不准出门													
24	捏/掐痛你													
25	骂你懒, 笨或者其它等													
26	扇你脸、头、嘴巴等部位													
27	拒绝同你讲话/不理你													
28	把他们的不幸遭遇怪罪于你													
29	威胁要伤害你													

序号	管教方式	(1) 下列行为所发生的次数							(2) 如发生过, 哪些人对你做过这些行为? (可多选)					
		≥50 次	13-50 次	6-12 次	3-5 次	1-2 次	过去一年没有, 以前有 过	从来没有	不知道	妈妈	爸爸	祖父母	兄弟姐妹	其他 (请说明)
		一周 1 次及以上	一个月 1-4 次	一个月 1 次或两个月 1 次	一年 3-5 次	一年 1-2 次								
30	故意烫伤、烧伤 (如用烟头) 或扎伤 (如用针) 你													
31	殴打你													
32	将你锁在房间													
33	将你锁起来或捆起来, 限制活动													
34	不让你吃饭													
35	在众人面前让你难堪													
36	威胁要把你送走或者赶出家门													
37	说希望你死掉或后悔生下你													
38	吓唬要打你但没有真打													
39	徒手打你的手、胳膊或腿													
40	用拳头打你													
41	将你推倒或推翻在地													
42	用刀或利器吓你													
43	用刀/破碎玻璃等利器刺伤你													
44	把你的头按在水里													
45	用手或枕头让你无法呼吸													
46	其他 _____													

最后，请根据你过去六个月内的经历回答以下各题，选项没有对错之分，请告诉我们你的真实情况。请不要遗漏任何一题，即使你对某些题目并不是十分确定。

- | | | | |
|-------------------------|------|-------|-------|
| 1. 我经常头痛、肚子痛或身体不舒服 | ①不符合 | ②有点符合 | ③完全符合 |
| 2. 我容易觉得很愤怒，而且常发脾气 | ①不符合 | ②有点符合 | ③完全符合 |
| 3. 我通常依照吩咐做事 | ①不符合 | ②有点符合 | ③完全符合 |
| 4. 我有很多担忧 | ①不符合 | ②有点符合 | ③完全符合 |
| 5. 我经常不快乐、情绪低落或流泪 | ①不符合 | ②有点符合 | ③完全符合 |
| 6. 我经常与别人争执，我能让别人听我的 | ①不符合 | ②有点符合 | ③完全符合 |
| 7. 我在新的环境中会感到紧张，很容易失去自信 | ①不符合 | ②有点符合 | ③完全符合 |
| 8. 我常被说撒谎或不老实 | ①不符合 | ②有点符合 | ③完全符合 |
| 9. 我会从家里、学校或别处拿不属于我的东西 | ①不符合 | ②有点符合 | ③完全符合 |
| 10. 我心中有很多恐惧，我很容易受惊吓 | ①不符合 | ②有点符合 | ③完全符合 |

问卷完成之后，请仔细检查是否有漏填题目。非常感谢你的配合！

Appendix 8-1 Topic Guides

A. Topic Guide for Young Adults

Personal information (Prompt)

1. What's your name?
2. How old are you?
3. How many people do you have in your family?
4. Would you tell me more about your childhood? Good or naughty at school & home?
5. What would you like to do when you were a child?

Experience and perception of childhood punishment/maltreatment

1. Overall what do you think of your parents' disciplinary methods?
2. What affected you most in terms of your childhood experience in relation to discipline and punishment?
3. What do you think of as good behaviours in children?(At **school & home**)
4. Did your parents **say/do** something to encourage you when you behave well? If so what? Why?
5. What do you think of as bad or naughty behaviours?
6. Are some bad behaviours worse than others- give me an example of a very serious one and a not very serious one?
7. Would your parents use different disciplinary acts according to the extent of severity- give me an example? Why? Or why not?
8. What did your parents **say/do** to discipline you when you were naughty or made mistakes? If so what? Why?
9. Have your parents ever used physical punishment with you? If so what? Why?
(Use examples if necessary)
10. Have your parents ever used verbal aggression with you? If so what? Why?
(Use examples if necessary)
11. How did you **feel** when your father/mother did such disciplinary acts or punishments?
12. What did you **think** when your father/mother did such disciplinary acts or punishments?
13. How did you **react** when your father/mother did such disciplinary acts or punishments?
14. Do you think it is reasonable or unreasonable for your parents to use physical punishment with you? Why?
15. Do you think physical punishment or verbal aggression are effective for you? Why?
16. Do you think that the kinds of punishments you had as a child had caused long term harm to you? If so what?
17. Do you think that the kinds of punishments you had as a child had any long term effects on your relationship with your parents? If so what?
18. Do you think that the kinds of punishments you had, changed during different stages of childhood? If so what?
19. What do you think of your experience of being punished compared with other children around your age at the time?
20. Which one do you think is worse, physical punishment or verbal aggression? Why?
21. What do you think of physical punishment?
22. If you have a child in the future, what will you do to discipline your child if he/she misbehaves or does something wrong? Why?
23. We're almost finished. Now I will ask our last question: Is there anything you would like to tell me that you may feel uncomfortable or upset when you were growing up?

Is there anything else you would like to add that you might think is important about this topic?

Thank you so much for your time!

B. Topic Guide for Children

Personal information (Prompt)

1. What's your name?
2. How old are you?
3. How many people do you have in your family?
4. Would you tell me more about yourself? Good or naughty at school & home?
5. What do you like to do usually?

Experience and perception of child discipline and punishment

1. What do you think of as good behaviours in children?(At **school & home**)
2. Did your parents **say/do** something to encourage you when you behave well? If so what? Why?
3. What do you think of as bad or naughty behaviours?
4. Are some bad behaviours worse than others- give me an example of a very serious one and a not very serious one?
5. Would your parents use different disciplinary acts according to the extent of severity- give me an example? Why? Or why not?
6. What did your parents **say/do** to discipline you when you were naughty or made mistakes? If so what? Why?
7. Have your parents ever used physical punishment with you? If so what? Why?
(Use examples if necessary)
8. Have your parents ever used verbal aggression with you? If so what? Why?
(Use examples if necessary)
9. How did you **feel** when your father/mother did such disciplinary acts or punishments?
10. What did you **think** when your father/mother did such disciplinary acts or punishments?
11. How did you **react** when your father/mother did such disciplinary acts or punishments?
12. Do you think it is reasonable or unreasonable for your parents to use physical punishment with you? Why?
13. Do you think physical punishment or verbal aggression are effective for you? Why?
14. Do you think that the kinds of punishments you had as a child had caused harm to you? If so what?
15. Overall what do you think of your parents' disciplinary methods?
16. What affected you most in terms of your childhood experience in relation to discipline and punishment?
17. Do you think that the kinds of punishments you had as a child had any long term effects on your relationship with your parents? If so what?
18. Do you think that the kinds of punishments you had, changed while you are growing up? If so what?
19. Which one do you think is worse, physical punishment or verbal aggression? Why?
20. What do you think of your experience of being punished compared with other children around your age at the time?
21. If you do something wrong, what do you prefer your father/mother would do?
22. We're almost finished. Now I will ask our last question: Is there anything you would like to tell me that you may feel uncomfortable or upset?

Is there anything else you would like to add that you might think is important about this topic?

Thank you so much for your time!

C. Topic Guide for Parents

Prompt

1. How many children do you have?
2. How old is your child/how old are your children?
3. Good or naughty at school & home?

Experience and perception of disciplining/punishing children

1. Overall what do you think of your disciplinary methods with your children?
2. What is the most impressive experience in relation to disciplining or punishing children?
3. What do you think of as good behaviour in your children? (At **school & home**)
4. Did you **say/do** something to encourage him/her? If so what? When?
5. What do you think of as bad or naughty behaviour? (**Use examples if necessary**)
6. Are some bad behaviours worse than others- give me an example of a very serious one and a not very serious one?
7. Would you use different disciplinary acts according to the extent of severity- give me an example? Why? Or why not?
8. What did you **say/do** to discipline him/her when your children were naughty or made mistakes? If so what? Why? (**Use examples if necessary**)
9. Have you ever used physical punishment with your child/children? If so what? Why? (**Use examples if necessary**)
10. Have you ever used verbal aggression with your child/children? If so what? Why? (**Use examples if necessary**)
11. How did your child **behave/act** when you did that to him/her?
12. Do you think physical punishment or verbal aggression are effective or not? Why? Or why not?
13. Do you think it is necessary to use physical punishment or verbal aggression with your child in order to raise/educate them properly? Why? Or why not?
14. Do you think it is reasonable to use physical punishment or verbal aggression with your child in order to raise/educate them properly? Why? Or why not?
15. Do you think that physical punishment or verbal aggression would cause harm to your child? Why? Or why not?
16. Do you think that the kinds of punishments you use, have changed during different stages when he/she is growing up? If so what?

Is there anything else you would like to tell me that you might think is important about this topic?

Thank you so much for your time!

Appendix 8-2 Information Sheet in Qualitative Studies

Information Sheet for Young Adults in Qualitative Studies

You will be given a copy of this information sheet.

Title of Project: **An Exploration of Child Discipline in China**

This study has been approved by the UCL Research Ethics Committee (Project ID Number): 5279/001

Name	Yanyan Ni
Work Address	UCL Institute for Global Health Institute of Child Health 30 Guilford Street, London WC1N 1EH
Contact Details	yanyan.ni.13@ucl.ac.uk

We would like to invite you to participate in this research project.

Details of Study:

We all know that parenting is very important for children's physical and mental development and may differ among families. We want to ask about your experiences of being disciplined/punished during childhood. We will use the information you give us to help to inform policy on child protection in China. We hope you will find this an interesting experience and it may give you some insights into problems that you may not have considered before.

We will conduct an in-depth interview with you, which will take about an hour. But there is no right or wrong answer. We are just interested in your personal experiences and ideas. If you don't feel comfortable with answering a question, just don't answer.

The whole interview process will be audio-taped. Recorded interviews will be transcribed (written up) and the tape will then be wiped clear. The information that we collect from you is confidential and anonymous. This means that your real name will not appear in any documents. No-one will know who said what in the study. If you think it is necessary, please leave your contact details and we will send the tape to you.

It is up to you to decide whether to take part or not; choosing not to take part will not disadvantage you in any way. If you do wish to participate, please sign the consent form that we will give you later. We can arrange the interviews at your convenience. It is important for you to know that even if you take part in the study and you sign the consent form you can still stop at any time without giving a reason.

All data will be collected and stored in accordance with the Data Protection Act 1998.

Information Sheet for Children in Qualitative Studies

You will be given a copy of this information sheet.

Title of Project: **An Exploration of Child Discipline in China**

This study has been approved by the UCL Research Ethics Committee (Project ID Number): 5279/001

Name	Yanyan Ni
Work Address	UCL Institute for Global Health Institute of Child Health 30 Guilford Street, London WC1N 1EH
Contact Details	yanyan.ni.13@ucl.ac.uk

We would like to invite you to participate in this research project.

Details of Study:

We all know that no one is perfect. Children often do things that are wrong, they may disobey, or make their parents angry. We would like to know how your parents discipline/punish you when you misbehave and what you think about different kinds of disciplinary acts.

If you agree to take part in this research, we will have a chat with you for about an hour. We might then ask you to join in a group of children of the same age later and discuss similar questions, lasting for about an hour. We will ask you questions about your personal experience and views on child discipline and punishment.

People may have a number of different views about this. But there is no right or wrong answer. We are just interested in your personal experiences and ideas. If you don't feel comfortable with answering a question, just don't answer. If you don't want to continue, you can stop at any point without giving reason, which won't cause any harm.

If the questions have made you think about things that worry you and you want to discuss these with someone— either phone the number on the form or tell the person who organised this.

We would like to record these interviews and focus group discussions, however these audio files will be kept securely and remain confidential. We won't record your name, so no one will know what you have said.

It is up to you to decide whether to take part or not; choosing not to take part will not disadvantage you in any way. If you decide to take part you will be given this information sheet to keep and be asked to sign a consent form.

Information Sheet for Parents in Qualitative Studies

You will be given a copy of this information sheet.

Title of Project: **An Exploration of Child Discipline in China**

This study has been approved by the UCL Research Ethics Committee (Project ID Number): 5279/001

Name	Yanyan Ni
Work Address	UCL Institute for Global Health Institute of Child Health 30 Guilford Street, London WC1N 1EH
Contact Details	yanyan.ni.13@ucl.ac.uk

We would like to invite you to participate in this research project.

Details of Study:

We all know that parenting is very important for children's physical and mental development and may differ among families. We hope to understand your way of child discipline and your views on this issue. We will use the information you give us to help to inform policy on child protection in China. We hope you will find this an interesting experience and it may give you some insights into problems that you may not have considered before.

We will conduct an in-depth interview with you, which will take about an hour. But there is no right or wrong answer. We are just interested in your personal experiences and ideas. If you don't feel comfortable with answering a question, just don't answer.

The whole interview process will be audio-taped. Recorded interviews will be transcribed (written up) and the tape will then be wiped clear. The information that we collect from you is confidential and anonymous. This means that your real name will not appear in any documents. No-one will know who said what in the study. If you think it is necessary, please leave your contact details and we will send the tape to you.

It is up to you to decide whether to take part or not; choosing not to take part will not disadvantage you in any way. If you do wish to participate, please sign the consent form that we will give you later. We can arrange the interviews at your convenience. It is important for you to know that even if you take part in the study and you sign the consent form you can still stop at any time without giving a reason.

All data will be collected and stored in accordance with the Data Protection Act 1998.

Appendix 8-3 Consent Form in Qualitative Studies

A. English Version

Informed Consent Form for Participants in Qualitative Studies

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

Title of Project: **An Exploration of Child Discipline in China**

This study has been approved by the UCL Research Ethics Committee (Project ID Number): 5279/001

Thank you for your interest in taking part in this research. Before you agree to take part, the person organising the research must explain the project to you.

If you have any questions arising from the Information Sheet or explanation already given to you, please ask the researcher before you to decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

Participant's Statement

I

- have read the notes written above and the Information Sheet, and understand what the study involves.
- understand that if I decide at any time that I no longer wish to take part in this project, I can notify the researchers involved and withdraw immediately.
- agree to the processing of my personal information for the purposes of this research study.
- understand that my participation will be taped and I consent to use of this material as part of the project.
- agree that the research project named above has been explained to me to my satisfaction and I agree to take part in this study.

Signed:

Date:

B. Chinese Version

项目名称：探索中国式父母管教方式

知情同意书

非常感谢您愿意参与我们的研究。在您同意参加之前，负责这次调查的人必须向您解释该研究项目的相关信息。知情同意书一式两份，一份交给您保存，一份由我们保管。

如果您同意参加，请在下面的框中划‘√’：

- 我已经阅读信息表中所写内容，了解该研究项目的内容。
- 我了解如果我中途决定不再参与研究，可以不需要任何理由直接提出，并且立即退出。
- 我同意将我的个人数据用于科学研究。
- 我理解我的参与将会被录音并同意将其用于后期的数据分析。
- 我同意上述研究项目已被清楚解释，并且我同意参加该研究。

签名： _____

日期： _____

Appendix 8-4 Example of an Analysed Transcript

Extract	Initial Codes	Codes
I 你对打骂孩子有什么看法？		
P 印象中我唯一一次体罚是小学的时候，小时候住在一个大学里面，然后经常会跟其他小伙伴们骑自行车、玩什么的，但我爸妈就说骑自行车可以，但不要骑到路上去，但是我一直对到路上骑车有着神秘的向往，有一次就跟另外一个同学骑车骑到外面去了，感觉很刺激，不幸的是回去的路上正好遇见一个亲戚，把这事告诉了我爸妈，然后我特别忐忑，回去一进门我爸妈表情就特别严肃，一进门就让我跪下，然后就开始批评我，说这很危险。	<p>Kneeling during primary school</p> <p>Cycling on the road with lots of traffic</p> <p>Criticising</p> <p>Coexistence of non-contact punishment and emotional maltreatment</p>	<p>Non-contact punishment</p> <p>Age: primary school</p> <p>Children's behaviours for maltreatment: safety issues</p> <p>Emotional maltreatment</p> <p>Coexistence</p>
P 有另外一件事情，我小时候不是学钢琴嘛，在学钢琴这件事情上我妈就特别暴躁，因为我妈妈是音乐老师，但是她教其他的学生都特别有耐心，教我就特别没有耐心，经常我弹错了，她就特别急，“啪”打我手这样子，这样的事情经常有，然后练琴的时候也经常骂我。	<p>Frequent experience of being slapped on the hand</p> <p>Making mistakes when playing piano</p> <p>Scolding</p> <p>Coexistence of physical and emotional maltreatment</p>	<p>Physical maltreatment</p> <p>Children's behaviours for maltreatment</p> <p>Emotional maltreatment</p> <p>Coexistence</p>
P 还有我觉得骂孩子算不算是，就是很严厉的那种骂，劈头盖脸那种骂，就会造成心理上的恐惧的那种骂，挺可怕的，我觉得是跟体罚很相近的一种东西。我妈就会经常骂我，骂的特别严厉，虽然她很少打我，但是她经常骂起我来，就感觉整个就变了一个人一样，反正就还挺恐怖的，我就会觉	<p>Severe and frequent scolding from his mother</p> <p>Less physical punishment than verbal aggression</p> <p>Psychological fear caused by severe scolding</p>	<p>Emotional maltreatment</p> <p>Negative effects of frequent emotional maltreatment</p>

<p>得我妈的脾气特别暴躁。平时，她对我的管教方式也是骂为主。一般不会因为学习上的事情，一般会因为生活习惯问题，比如说寒假的时候，整天坐在电脑前，她就会说我；我不是习惯晚睡嘛，她就特别见不惯我晚睡。还有在家不做家务什么的，不帮他们分担，她就会比较生气。</p>	<p>Perception of mother's bad temper</p> <p>Sleeping late, not helping with housework, playing computer all the time</p>	<p>Perception of mother's bad temper</p> <p>Children's behaviours for maltreatment: living habits</p>
<p>I 这些经历有对你造成影响吗？</p>		
<p>P 对我个人来说，打印象不是很深刻，我觉得骂对我的影响比较大。因为我爸妈对我的体罚，是因为我犯了重大的错误，之后我会理解他们那样做的原因，他们也不是很过分，也没有很无理的惩罚我。骂的话，相比打，更加不过脑，很容易就开始骂，这让我是很不能理解的，无缘无故地或者没有这么大的错误，就用很生气的语言来骂你，这种情况造成的伤害比较大，之后也想不通。长期的影响也还是会的，比如说对我自己，很明显我会很容易发火，以对家里人居多，受到我妈妈潜移默化的影响，就是‘原来对家人可以以这种方式来发泄’，就会模仿她的行为。</p>	<p>Perceived kneeling as reasonable because he made a serious mistake</p> <p>Felt difficult to understand scolding from his mother; felt it unreasonable because he did not make any serious fault</p> <p>Felt harmed more by scolding in the long term</p> <p>Get aggressive easily</p> <p>Modelling his mother's behaviour</p>	<p>Understand parents' good intentions when they made mistakes</p> <p>Felt harmed by frequent emotional maltreatment in relation to parents' bad temper, when they perceived parental behaviours to be unreasonable</p>

I, Interviewer; P, Participant.

Appendix 8-5 Themes and Constituent Codes

Category 1: Overview of experiences of child maltreatment

Themes	Constitute codes
(1) Age of child maltreatment	<ul style="list-style-type: none"> • More in primary school. • No more after going to middle school. • Getting less as they grow up.
(2) Various forms of maltreatment	<ul style="list-style-type: none"> • Minor physical maltreatment: hitting on the bottom with bare hand or with an implement, etc. • Moderate physical maltreatment: hitting elsewhere with an implement, slapping on the face, etc. • Severe physical maltreatment causing physical injuries. • Emotional maltreatment: public humiliation, derogatory or depreciating comments, etc. • Non-contact punishment: standing, kneeling, or locking the child in the wardrobe, etc.
(3) Various children's behaviours	<ul style="list-style-type: none"> • Safety issues: playing with fire, playing near the river, road safety, etc. • Conduct or manner issues: lying, stealing, fighting, quarrelling with parents, etc. • Study or related issues: homework, bad grades in exams, truanting, etc. • Living habits: nail biting, eating, computer time, too much TV, sleep time, or not helping at home, etc. • Others: losing or destroying family property or other people's property accidentally, religious beliefs, or disobedience to parents' wishes, etc.
(4) Transactional process involving multiple factors	<ul style="list-style-type: none"> • Inter-parental violence • Parents' poor emotion control and their own abusive childhoods • Single motherhood and poor emotion control during times of additional stress and tension • Parents' low level of education, high expectations of children and focus on their academic success • Parents' low level of education and rural-to-urban migration • Prolonged stress or anger in families with different religions

Category 2: Perception of child maltreatment

Themes	Constitute codes
(1) Focus of on parents' intentions	<ul style="list-style-type: none">• Understand parents' good intentions when they thought they made mistakes.• Young adults being able to identify the irrationality.• Young adults' disapproval of harsh discipline because of their awareness of harm.
(2) Perception of misbehaviours and mistakes causing maltreatment	<ul style="list-style-type: none">• Acceptance of violent discipline for safety issues, conduct and manner issues.• Less able to accept harsh discipline for poor academic performance.
(4) Perception of effects on parent-child relationship	<ul style="list-style-type: none">• Most reported no influence on their parent-child relationship in the long term.• Some reported fear of parents.

Category 3: Perception of long-term harm from maltreatment

(1) Unrecoverable physical injury	<ul style="list-style-type: none">• Hand fracture caused by physical maltreatment perpetrated by the father during adolescence.• Permanent injury.
(2) Poor emotion control and aggressive tendencies	<ul style="list-style-type: none">• Perceptions of harm affected by perceptions of parents' behaviours.• Frequent and chronic emotional maltreatment, occurring in the context of mothers' poor emotion control.• Frequent physical and emotional maltreatment in the context of single motherhood, poor emotion control and psychological stress from work.
(3) Psychological harm	<ul style="list-style-type: none">• Frequent maltreatment due to parents' great attention to academic success.• Frequent maltreatment due to different religious beliefs within one family.• Frequent emotional maltreatment in the context of inter-parental violence.

Category 4: Possible factors moderating harm from maltreatment

Themes	Constitute codes
(1) Perception of parental good intentions	<ul style="list-style-type: none">• No harm when harsh discipline is for their own good.• No harm when they made mistakes.
(2) Perception of the Chinese punitive culture	<ul style="list-style-type: none">• Perception of experiencing more maltreatment than peers.• Perception of experiencing similar maltreatment as peers.• Such perception normalised their experiences.• Such perception made them feel that their parents were nicer.
(3) Parental warmth	<ul style="list-style-type: none">• Parental warmth in daily life.• More love than punishment in daily life.• Parental gentleness in daily communication.
(4) Positive parent-child interaction after harsh discipline	<ul style="list-style-type: none">• Parental comforts after harsh discipline.• Explain things after harsh discipline

SUPPLEMENTARY TABLES/FIGURES

Table S6-1 Comparing parents' characteristics between completed and non-completed questionnaires

	Questionnaires completed by parents (n=576) -reported by parents	Questionnaires that parents did not complete (n=240) -reported by children*
<i>Child Maltreatment-preceding year</i>		
Minor physical maltreatment	106(18.4)	60(24.9)
Moderate physical maltreatment	106(18.4)	78(32.4)
Severe physical maltreatment	13(2.3)	12(5.0)
Emotional maltreatment	318(55.2)	107(44.4)
Non-contact punishment	30(5.2)	20(8.3)
<i>Mother's education</i>		
Primary school or below	34(10.2)	33(13.7)
Middle school	145(43.5)	94(39.0)
High school	74(22.2)	53(22.0)
University or above	44(13.2)	21(8.7)
<i>Father's education</i>		
Primary school or below	26(10.7)	33(13.7)
Middle school	134(55.1)	81(33.6)
High school	46(18.9)	50(20.7)
University or above	16(6.6)	27(11.2)
<i>Residence</i>		
Urban	225(39.1)	196(81.3)
Rural	351(60.9)	45(18.7)
<i>Economic status</i>		
High-income	88(15.3)	61(25.3)
Middle	373(64.8)	125(51.9)
Low-income	104(18.1)	19(7.9)

* Some variables were reported in both parents' and children's questionnaires.

Non-completed questionnaires: more common among urban parents, high-income households, or fathers with higher education.

Table S6-2 Categories of physical maltreatment – parent’s report (N=576)

A. Eight exclusive categories

Physical maltreatment	n (%)	Mean score of parental aggression				Parental childhood maltreatment n (%)
		Anger	Hostility	Physical aggression	Verbal aggression	
No	430(74.7)	6.6	6.6	4.6	6.8	203(52.2)
Minor only	38(6.6)	7.8	7.4	5.3	7.7	24(68.6)
Moderate only	39(6.8)	7.6	7.6	5.6	7.8	24(63.2)
Moderate/minor	56(9.7)	8.2	8.0	5.7	8.1	36(70.6)
Severe only	0(0.0)	-	-	-	-	-
Severe/minor	2(0.3)	-	10.5	8.5	9.5	2(100.0)
Severe/moderate	1(0.2)	-	-	-	-	0(0.0)
Severe/moderate/minor	10(1.7)	8.7	7.4	7.0	8.1	7(77.8)

B. Four exclusive categories (some categories were combined due to small numbers)

Physical maltreatment	n (%)	Mean score of parental aggression				Parental childhood maltreatment n (%)
		Anger	Hostility	Physical aggression	Verbal aggression	
No	430(74.7)	6.6	6.6	4.6	6.8	203(52.2)
Minor only	38(6.6)	7.8	7.4	5.3	7.7	24(68.6)
The co-occurrence of moderate	95(16.5)	7.9	7.8	5.6	8.0	60(67.4)
The co-occurrence of severe	13(2.3)	8.8	7.9	6.9	8.7	9(75.0)

C. Further combination: three exclusive categories

Physical maltreatment	n (%)	Mean score of parental aggression				Parental childhood maltreatment n (%)
		Anger	Hostility	Physical aggression	Verbal aggression	
No	430(74.7)	6.6	6.6	4.6	6.8	203(52.2)
Minor only	38(6.6)	7.8	7.4	5.3	7.7	24(68.6)
The co-occurrence of moderate and severe	108(18.8)	8.0	7.8	5.8	8.1	69(23.3)

Table S6-3 Comparison of maltreatment reporting between mothers/fathers and children

Items	Mother-child comparison (324 pairs)				
	Mothers <i>n</i> (%)	Children <i>n</i> (%)	<i>P</i>	Cohen's kappa	Agreement <i>n</i> (%)
<i>Life-time</i>					
Overall	257(79.3)	187(57.7)	<0.001	0.294	220(67.9)
Physical maltreatment	173(53.4)	119(36.7)	<0.001	0.360	202(62.3)
Emotional maltreatment	247(76.2)	161(50.0)	<0.001	0.237	200(61.7)
Non-contact punishment	63(19.4)	42(13.0)	0.006	0.380	269(83.0)
<i>Preceding year</i>					
Overall	188(58.0)	134(41.4)	<0.001	0.255	200(61.7)
Physical maltreatment	79(24.4)	73(22.5)	0.572	0.330	246(75.9)
Emotional maltreatment	181(55.9)	106(32.7)	<0.001	0.140	179(55.2)
Non-contact punishment	18(5.6)	12(3.7)	0.327	0.093	298(92.0)

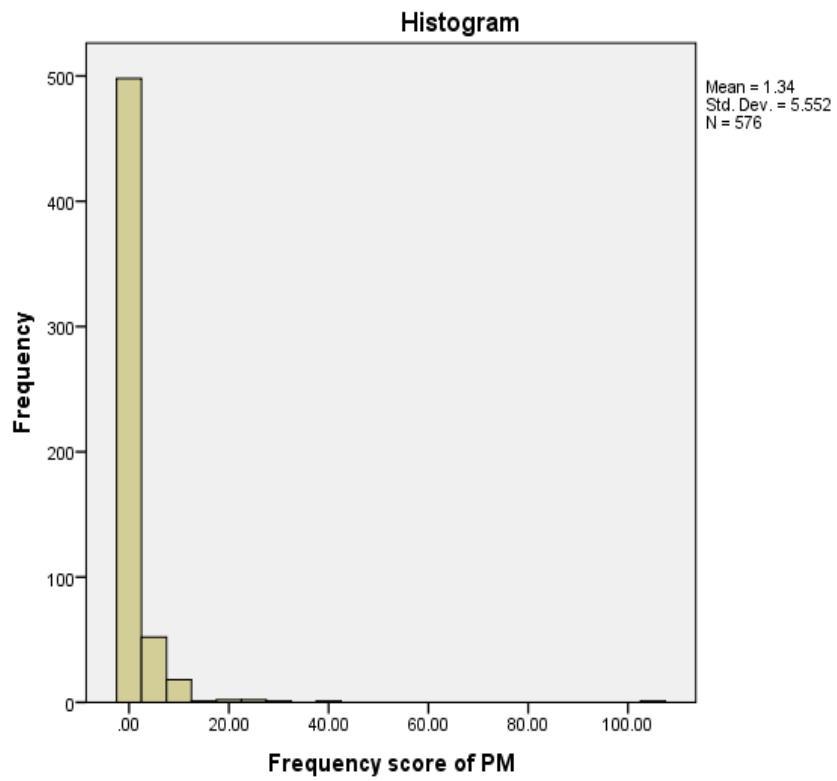
Note: Agreement = % (Parent-yes; Adolescent-yes) + % (Parent-no; Adolescent-no).

Items	Father-child comparison (235 pairs)				
	Fathers <i>n</i> (%)	Children <i>n</i> (%)	<i>P</i>	Cohen's kappa	Agreement <i>n</i> (%)
<i>Life-time</i>					
Overall	179(76.2)	138(58.7)	<0.001	0.279	158(67.2)
Physical maltreatment	136(57.9)	87(37.0)	<0.001	0.272	146(62.1)
Emotional maltreatment	168(71.5)	104(44.3)	<0.001	0.205	137(58.3)
Non-contact punishment	53(22.6)	38(16.2)	0.067	0.201	176(74.9)
<i>Preceding year</i>					
Overall	135(57.4)	94(40.0)	<0.001	0.183	134(57.0)
Physical maltreatment	62(26.4)	49(20.9)	0.130	0.242	172(73.2)
Emotional maltreatment	127(54.0)	74(31.5)	<0.001	0.157	126(53.6)
Non-contact punishment	10(4.3)	14(6.0)	0.076	0.386	221(94.0)

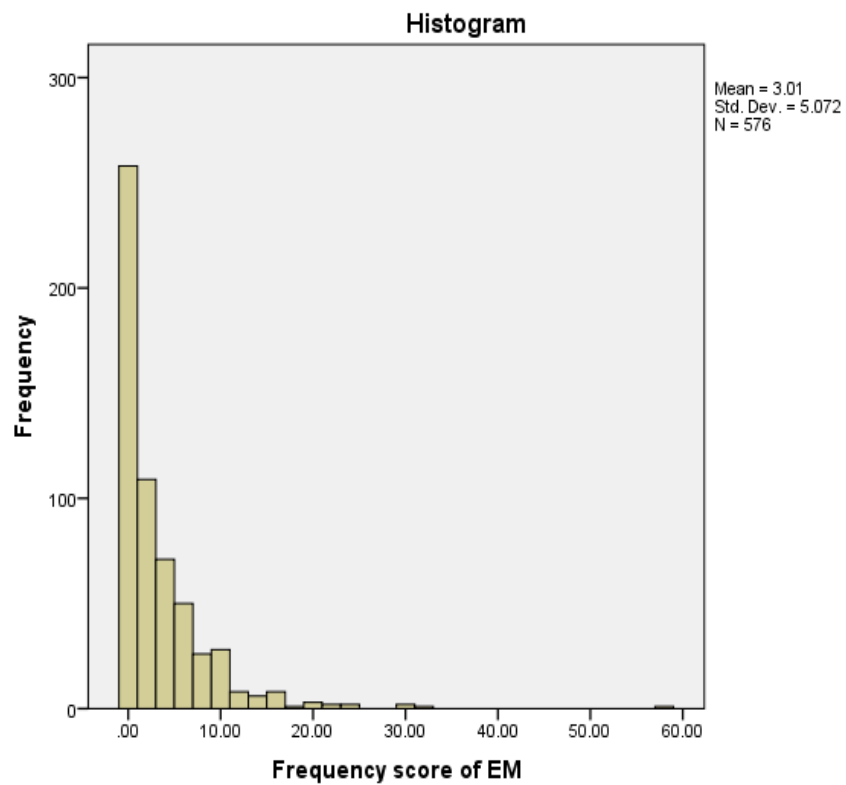
Note: Agreement = % (Parent-yes; Adolescent-yes) + % (Parent-no; Adolescent-no).

Figure S6-1 Distribution of frequency scores of different types of child maltreatment

A. Physical Maltreatment



B. Emotional Maltreatment



C. Non-contact Punishment

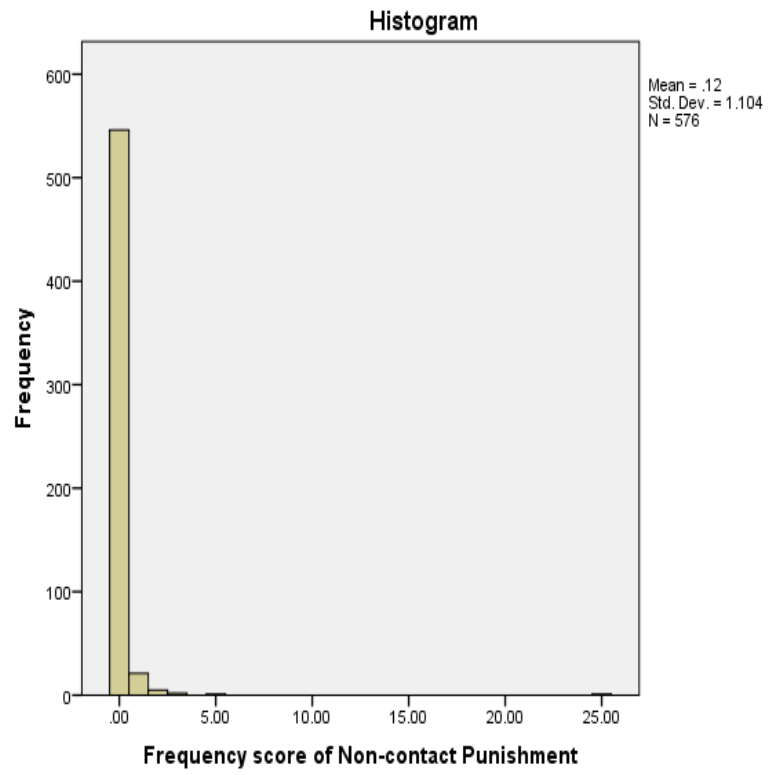


Table S6-4 Validation analysis using maltreatment reported by children

Associations between maternal childhood maltreatment/aggression and child maltreatment reported by children (multiple imputed data) -- OR (95% CI)^a

Variables	Maternal maltreatment reported by children		
	Physical maltreatment	Emotional maltreatment	Non-contact punishment
Overall aggression	1.02(0.99,1.06)	1.03(1.00,1.06)	1.00(0.91,1.09)
Anger	1.06(0.96,1.17)	1.11(1.01,1.22)	0.95(0.71,1.27)
Hostility	1.06(0.95,1.17)	1.04(0.95,1.15)	1.05(0.80,1.37)
Physical aggression	1.12(0.99,1.28)	1.14(1.01,1.28)*	1.15(0.84,1.57)
Verbal aggression	1.01(0.90,1.14)	1.03(0.92,1.15)	0.87(0.65,1.17)
Parental childhood maltreatment	1.18(0.62,2.23)	0.98(0.54,1.77)	1.23(0.25,6.01)

^a Full Model included parental aggression, parental childhood maltreatment and covariates, including parent's age and education, urban/rural residence, economic status, child's sex and age, the number of children. *** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$.

Associations between paternal childhood maltreatment/aggression and child maltreatment reported by children (multiple imputed data) -- OR (95% CI)^a

Variables	Paternal maltreatment reported by children		
	Physical maltreatment	Emotional maltreatment	Non-contact punishment
Overall aggression	1.04(1.00,1.09)	1.06(1.01,1.10)**	1.06(0.96,1.17)
Anger	1.11(0.98,1.27)	1.12(1.00,1.27)	1.07(0.79,1.44)
Hostility	1.14(0.99,1.30)	1.16(1.02,1.31)*	1.26(0.92,1.74)
Physical aggression	1.14(0.99,1.31)	1.29(1.12,1.49)***	1.14(0.82,1.59)
Verbal aggression	1.07(0.93,1.24)	1.03(0.91,1.18)	1.14(0.85,1.54)
Parental childhood maltreatment	1.29(0.56,3.00)	0.92(0.44,1.93)	0.87(0.12,6.46)

^a Full Model included parental aggression, parental childhood maltreatment and covariates, including parent's age and education, urban/rural residence, economic status, child's sex and age, the number of children. *** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$.

Table S6-5 Summary statistics for key variables reported by parents

Variables	Sample with complete data (<i>n</i> =351)	Sample with incomplete data (<i>n</i> =225)	<i>P</i> ^{<i>b</i>}	Imputed sample (<i>N</i> =576)
Outcome				
Child maltreatment^a	204(58.1)	130(57.8)	0.935	334(58.0)
Physical maltreatment				
No	255(72.6)	175(77.8)	0.215	430(74.6)
Minor only	28(8.0)	10(4.4)		38(6.6)
Moderate/ Severe	68(19.4)	40(17.8)		108(18.8)
Emotional maltreatment	190(54.1)	128(56.9)	0.516	318(55.2)
Non-contact punishment	19(5.4)	11(4.9)	0.782	30(5.2)
Exposure				
Parental history of childhood maltreatment	210(59.8)	86(49.4)	0.024	325(56.4)
Parental aggression (Mean±<i>SD</i>)				
Overall	25.7±8.5	26.3±9.7	0.550	26.3
Anger	6.9±2.9	7.2±3.2	0.305	7.1
Hostility	7.0±2.9	6.7±3.0	0.425	7.0
Physical aggression	4.9±2.4	5.0±2.5	0.536	5.0
Verbal aggression	7.0±2.5	7.4±2.8	0.134	7.2
Covariates				
Parents				
Age (Mean± <i>SD</i>)	39.7±4.7	41.3±6.1	0.120	39.7
Relationship with the child				
Mothers	193(55.0)	140(62.2)	0.086	333(57.8)
Fathers	158(45.0)	85(37.8)		243(42.2)
Education				
Primary school or below	42(12.0)	18(10.7)	0.070	68(11.8)
Middle school	199(56.7)	80(47.6)		310 (53.8)
High school or above	110(31.4)	70(41.7)		198(34.4)
Children				
Age (Mean± <i>SD</i>)	12.8±4.7	12.9±6.1	0.351	12.8
Sex				
Boy	178(50.7)	118(52.4)	0.685	296(51.4)
Girl	173(49.3)	107(47.6)		280(48.6)
Single child				
Yes	185(52.7)	85(37.8)	<0.001	270(46.9)
No	166(47.3)	140(62.2)		306(53.1)
Family				
Economic status				
High-income	40(11.4)	48(22.4)	<0.001	90(15.6)
Middle	234(66.7)	139(65.0)		380(66.0)
Low-income	77(21.9)	27(12.6)		106(18.4)
Residence				
Urban	74(21.1)	151(67.1)	<0.001	225(39.1)
Rural	277(78.9)	74(32.9)		351(60.9)

^a Child maltreatment indicated whether one or more of the acts were used during the previous year, including physical maltreatment, emotional maltreatment and non-contact punishment.

^b Statistical differences between samples with complete data and incomplete data were investigated, using chi-square, or *t* test whenever appropriate.

Table S6-6 Role of parental aggression and childhood maltreatment – original results

A. Parental aggressive behaviours and physical maltreatment of their children(N=576)

Parental aggressive behaviours	Original data: outcome		Multiple Imputed data: outcome	
	Minor PM OR(se)	Moderate/severe PM OR(se)	Minor PM OR(se)	Moderate/severe PM OR(se)
Overall aggression				
Unadjusted	1.05(0.020)*	1.06(0.013)*	1.04(0.020)*	1.06(0.013)**
Adjustment 1	1.06(0.025)*	1.05(0.017)*	1.06(0.023)*	1.06(0.013)**
Adjustment 2	1.07(0.023)*	1.07(0.014)*	1.06(0.023)*	1.07(0.014)*
Adjustment 3	1.06(0.027)*	1.05(0.018)*	1.06(0.024)*	1.06(0.014)*
Anger				
Unadjusted	1.13(0.058)*	1.16(0.037)*	1.13(0.058)*	1.16 (0.038)*
Adjustment 1	1.19(0.072)*	1.14(0.048)*	1.17(0.065)*	1.16(0.038)*
Adjustment 2	1.20(0.065)*	1.18(0.040)*	1.18(0.064)*	1.17(0.039)*
Adjustment 3	1.19(0.075)*	1.14(0.051)*	1.17(0.067)*	1.17(0.040)*
Hostility				
Unadjusted	1.10(0.060)	1.15(0.038)*	1.09(0.064)	1.14(0.042)*
Adjustment 1	1.11(0.075)	1.11(0.049)*	1.09(0.072)	1.12(0.042)*
Adjustment 2	1.13(0.067)	1.15(0.041)*	1.11(0.070)	1.15(0.046)*
Adjustment 3	1.13(0.077)	1.13(0.053)*	1.12(0.049)	1.14(0.045)*
Physical aggression				
Unadjusted	1.12(0.069)	1.19(0.043)*	1.12(0.067)	1.19(0.042)*
Adjustment 1	1.10(0.082)	1.13(0.054)*	1.13(0.071)	1.19(0.043)*
Adjustment 2	1.15(0.074)	1.18(0.045)*	1.13(0.073)	1.18(0.044)*
Adjustment 3	1.11(0.084)	1.12(0.058)	1.13(0.073)	1.18(0.045)*
Verbal aggression				
Unadjusted	1.13(0.068)	1.19(0.043)*	1.13(0.069)	1.19(0.043)*
Adjustment 1	1.16(0.086)	1.12(0.056)*	1.18(0.076)*	1.18(0.044)*
Adjustment 2	1.16(0.075)	1.19(0.046)*	1.16(0.075)*	1.18(0.045)*
Adjustment 3	1.13(0.088)	1.10(0.103)	1.16(0.078)*	1.18(0.046)*

PM, physical maltreatment; * P<0.05; Adjustment 1: controlling for parent's sex, age and education, urban/rural residence, economic status; Adjustment 2: controlling for child's sex and age, the number of children (single vs non-single), urban/rural residence, economic status; Adjustment 3: controlling for parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

B. Parental childhood maltreatment and physical maltreatment of their children

Parental childhood maltreatment	Original data: outcome		Multiple Imputed data: outcome	
	Minor PM <i>OR(se)</i>	Moderate/severe PM <i>OR(se)</i>	Minor PM <i>OR(se)</i>	Moderate/severe PM <i>OR(se)</i>
Unadjusted	2.00(0.378)	1.98(0.237)*	2.05(0.372)	1.90(0.229)*
Adjustment 1	1.42(0.396) ⊕	1.88(0.287)*	2.07(0.375)	1.90(0.230)*
Adjustment 2	1.34(0.403)	1.94(0.293)*	1.98(0.383)	1.92(0.235)*
Adjustment 3	1.34(0.410)	1.87(0.299)*	2.02(0.383)	1.89(0.237)*
Adjustment 4	1.26(0.413)	1.84(0.300)*	1.71(0.391)	1.83(0.238)*
Adjustment 5	1.15(0.422)	1.72(0.305)	1.67(0.397)	1.69(0.243)*
Adjustment 6	1.55(0.397)	1.76(0.249)*	1.65(0.392)	1.68(0.241)*
Adjustment 7	1.09(0.431)	1.66(0.315)	1.66(0.404)	1.67(0.247)*

Adjustment 1: controlling for parent's age;

Adjustment 2: controlling for parent's age and sex;

Adjustment 3: controlling for parent's age, sex, and education;

Adjustment 4: controlling for parent's age, sex, and education, urban/rural residence;

Adjustment 5: controlling for parent's sex, age and education, urban/rural residence, economic status;

Adjustment 6: controlling for child's sex and age, the number of children (single vs non-single), urban/rural residence, economic status;

Adjustment 7: controlling for parent's sex, age, and education, urban/rural residence, economic status, child's sex, the number of children;

PM, physical maltreatment; * P<0.05.

⊕ The reduction of the effect size: it is likely to be associated with missing data; the percentage of missing data in parent's age is above 30%.

Table S6-7 Associations between parental aggression (subscales) and physical maltreatment of their children (multiple imputed data)

Variables	PM (Ref.= No)--Unadjusted		PM (Ref.= No)—Adjusted ^a		PM (Ref.= No)—Adjusted ^c	
	Minor only	Moderate/severe	Minor only	Moderate/severe	Minor only	Moderate/severe
	OR(95%CI)	OR(95%CI)	OR(95%CI)	OR(95%CI)	OR(95%CI)	OR(95%CI)
Anger	1.13(1.01,1.27)*	1.15(1.07,1.24)*	1.17(1.03,1.34)*	1.17(1.08,1.27)*	1.16(1.02,1.33)*	1.16(1.06,1.26)*
Hostility	1.10(0.98,1.24)	1.15(1.07,1.24)*	1.12(0.98,1.28)	1.14(1.05,1.25)*	1.11(0.96,1.27)	1.13(1.04,1.24)*
Physical aggression	1.12(0.98,1.28)	1.19(1.09,1.29)*	1.13(0.98,1.31)	1.18(1.07,1.30)*	1.12(0.96,1.30)	1.16(1.06,1.28)*
Verbal aggression	1.13(0.99,1.29)	1.18(1.09,1.29)*	1.16(0.99,1.35)	1.18(1.07,1.30)*	1.15(0.98,1.35)	1.17(1.07,1.29)*

Abbreviations: PM, physical maltreatment. * $P < 0.05$.

^a Model included parental aggression and covariates, including parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

^c Full Model included parental aggression, parental childhood maltreatment and covariates, including parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

Table S6-8 Associations between parental aggression (subscales) and emotional maltreatment/non-contact punishment of their children (multiple imputed data)

Variable	EM(Ref.= No)			NCP(Ref.= No)		
	Unadjusted	Adjusted ^a	Adjusted ^c	Unadjusted	Adjusted ^a	Adjusted ^c
	Anger	1.16(1.09,1.23)*	1.16(1.09,1.25)*	1.15(1.07,1.24)*	1.16(1.02,1.31)*	1.19(1.03,1.38)*
Hostility	1.23(1.15,1.32)*	1.25(1.15,1.35)*	1.23(1.14,1.33)*	1.16(1.03,1.32)*	1.20(1.03,1.40)*	1.18(1.01,1.38)*
Physical aggression	1.16(1.07,1.25)*	1.16(1.07,1.26)*	1.14(1.04,1.24)*	1.20(1.05,1.37)*	1.21(1.05,1.41)*	1.20(1.03,1.40)*
Verbal aggression	1.15(1.07,1.23)*	1.14(1.06,1.24)*	1.13(1.04,1.23)*	1.16(1.00,1.34)*	1.17(1.03,1.37)	1.16(0.99,1.36)

Abbreviations: EM, emotional maltreatment; NCP, non-contact punishment. * $P < 0.05$.

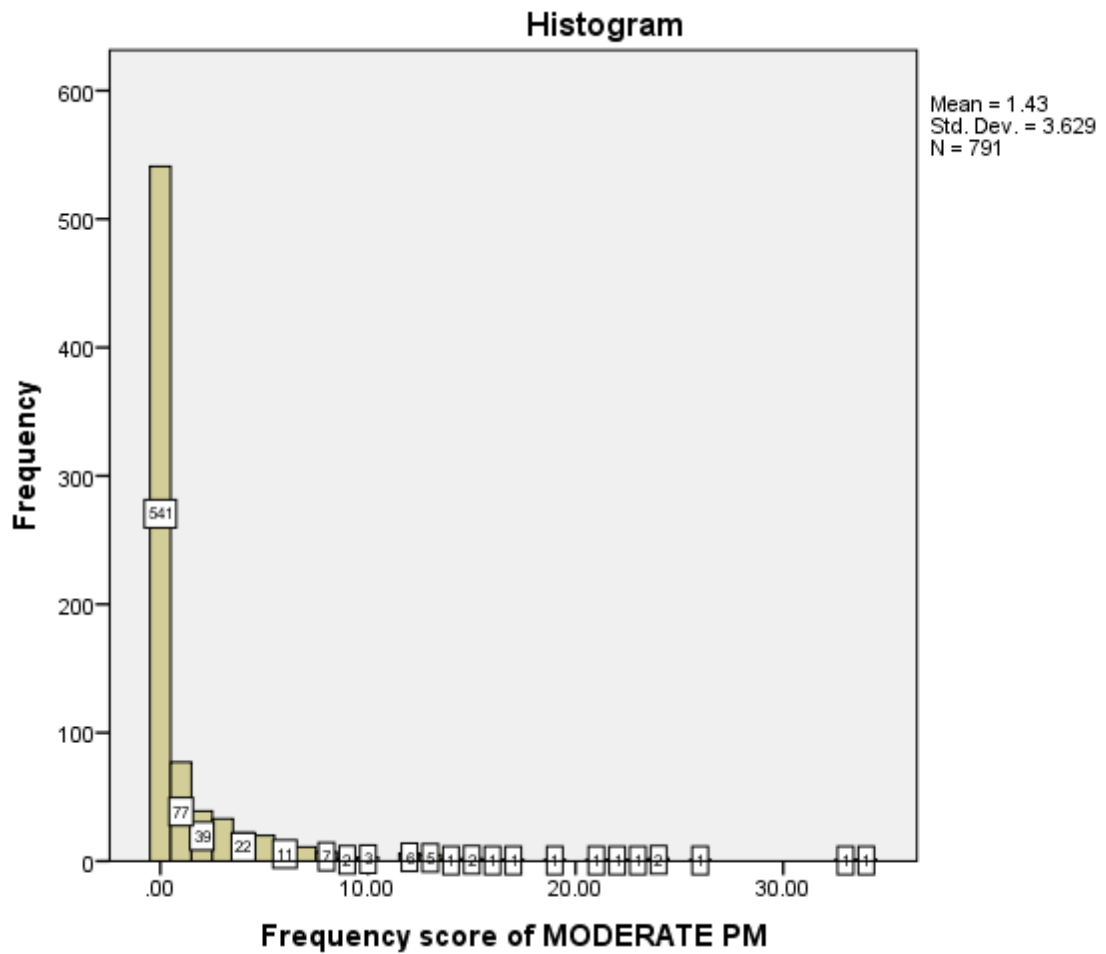
^a Model included parental aggression and covariates, including parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

^c Full Model included parental aggression, parental childhood maltreatment and covariates, including parent's sex, age, and education, urban/rural residence, economic status, child's sex and age, the number of children.

Table S7-1 Prevalence of different forms of child maltreatment at home by family members (N=791)

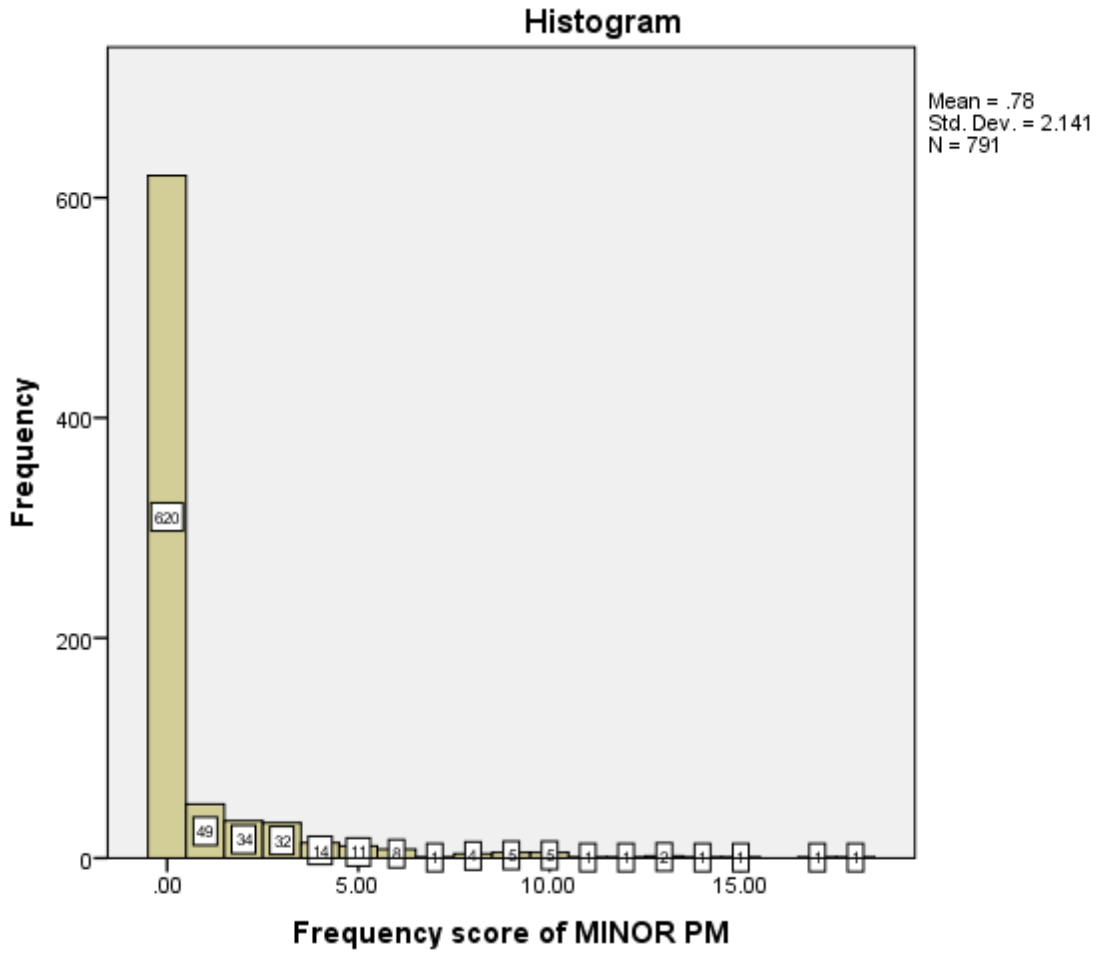
Items	Life-time n (%)	Preceding year n (%)
Physical maltreatment	463(58.5)	298(37.7)
Minor physical maltreatment		
Hit on the bottom with an object such as a stick, broom, cane, or belt	189(23.9)	73(9.2)
Slapped on the hand, arm, or leg	142(18.0)	73(9.2)
Slapped on the bottom with bare hand	130(16.4)	38(4.8)
Pinched to cause pain	102(12.9)	62(7.8)
Shook aggressively	53(6.7)	32(4.0)
Moderate physical maltreatment		
Twisted ear	223(28.2)	142(18.0)
Hit on head with knuckles	204(25.8)	116(14.7)
Hit elsewhere (not buttocks) with an object such as a stick, broom, cane, or belt	154(19.5)	68(8.6)
Slapped on face or back of head	108(13.7)	55(7.0)
Kicked her/him	92(11.6)	53(6.7)
Threw or knocked down	50(6.3)	27(3.4)
Hit with a fist	45(5.7)	27(3.4)
Pulled hair	45(5.7)	21(2.7)
Put chili pepper, hot pepper, or spicy food in his/her mouth (to cause pain)	6(0.8)	3(0.4)
Severe physical maltreatment		
Hit over and over again with object or fist ("beat-up")	55(7.0)	28(3.5)
Choked to prevent breathing	27(3.4)	11(1.4)
Threatened with a knife	14(1.8)	5(0.6)
Used a hand or pillow to prevent breathing (smother)	11(1.4)	2(0.3)
Burned or scalded or punctured with needles	8(1.0)	3(0.4)
Pressed his/her head under water	7(0.9)	2(0.3)
Used sharp objects to hurt, such as a knife and broken glass	6(0.8)	1(0.1)
Emotional maltreatment	518(65.5)	376(47.5)
Threatened to spank or hit but did not actually do it	275(34.8)	160(20.2)
Insulted by calling [name] stupid, lazy, or other names like that	264(33.4)	202(25.5)
Shouted, yelled, or screamed at him/her	230(29.1)	162(20.5)
Threatened to invoke harmful people against him/her, ghosts, or evil spirits	204(25.8)	52(6.6)
Refused to speak or ignore	129(16.3)	79(10.0)
Used public humiliation	126(15.9)	74(9.4)
Cursed	115(14.5)	71(9.0)
Told them you wished they were dead or had never been born	88(11.1)	52(6.6)
Threatened to leave or abandon	71(9.0)	40(5.1)
Blamed for parents' misfortune	63(8.0)	40(5.1)
Said they would be sent away or kicked out of the house	62(7.8)	31(3.9)
Threatened to hurt	34(4.3)	16(2.0)
Non-contact punishment	161(20.4)	65(8.2)
Locked out of home	102(12.8)	25(3.2)
Forced to hold a position that caused pain (i.e. standing/kneeling)	78(9.9)	37(4.7)
Withheld a meal as punishment	32(4.0)	15(1.9)
Locked in the room	30(3.8)	14(1.8)
Locked up or tied to restrict movement	13(1.6)	5(0.6)
Overall	598(75.5)	460(58.2)

B. Frequency score of moderate physical maltreatment (9 items)



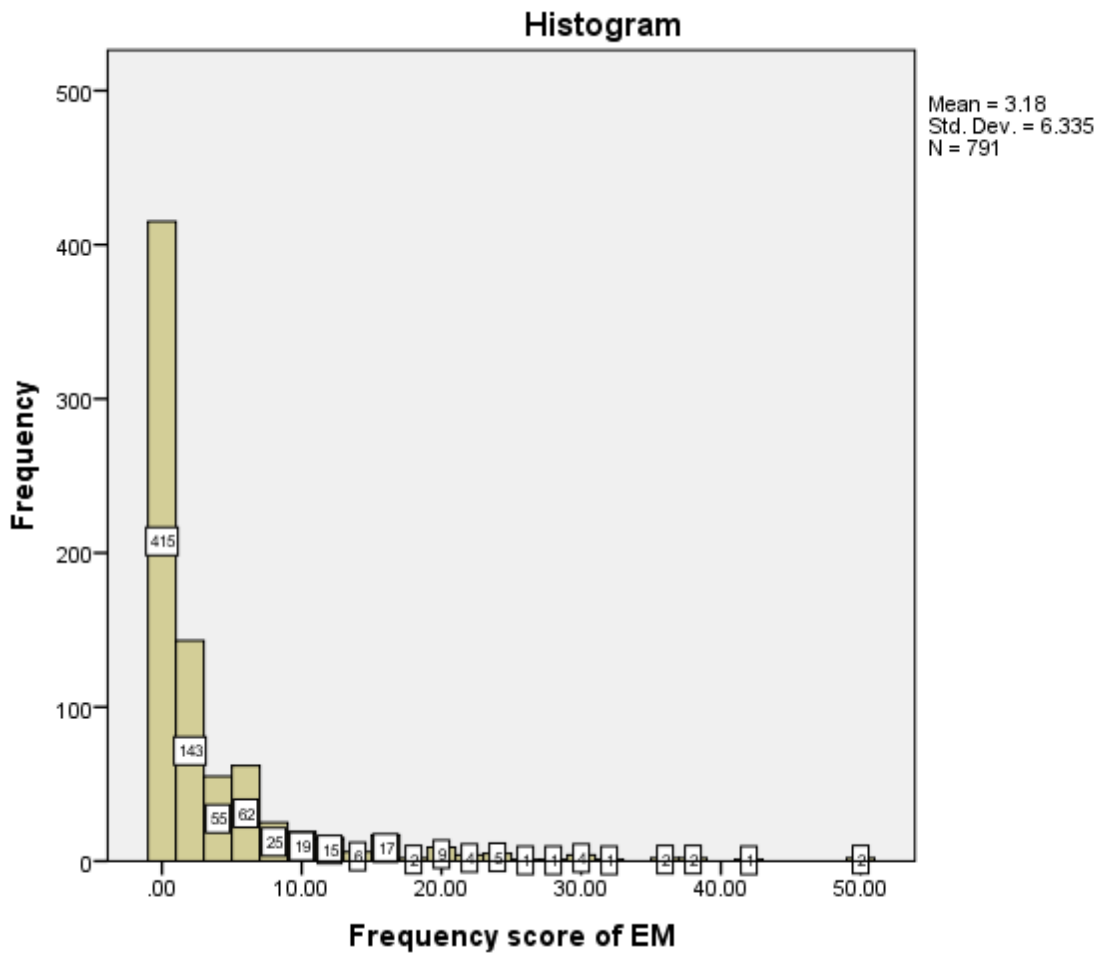
Frequency score of moderate PM	n	%	Emotional symptoms		Conduct problems	
			Borderline	Abnormal	Borderline	Abnormal
0.00	541	68.4	43(7.9)	45(8.3)	35(6.5)	33(6.1)
1.00	77	9.7	5(6.5)	10(13.0)	9(11.7)	7(9.1)
2.00	39	4.9	5(12.8)	5(12.8)	4(10.3)	3(7.7)
3.00	33	4.2	1(3.0)	8(24.2)	5(15.2)	7(21.2)
4.00	22	2.8	2(9.1)	2(9.1)	2(9.1)	3(13.6)
5.00	20	2.5	2(10.0)	8(40.0)	4(20.0)	2(10.0)
6.00-7.00	22	2.8	3(13.6)	5(22.7)	3(13.6)	5(22.7)
8.00-13.00	23	2.9	4(17.4)	6(26.1)	4(17.4)	5(21.7)
14.00-34.00	14	1.8	2(14.3)	5(35.7)	2(14.3)	4(28.6)

C. Frequency score of minor physical maltreatment (5 items)



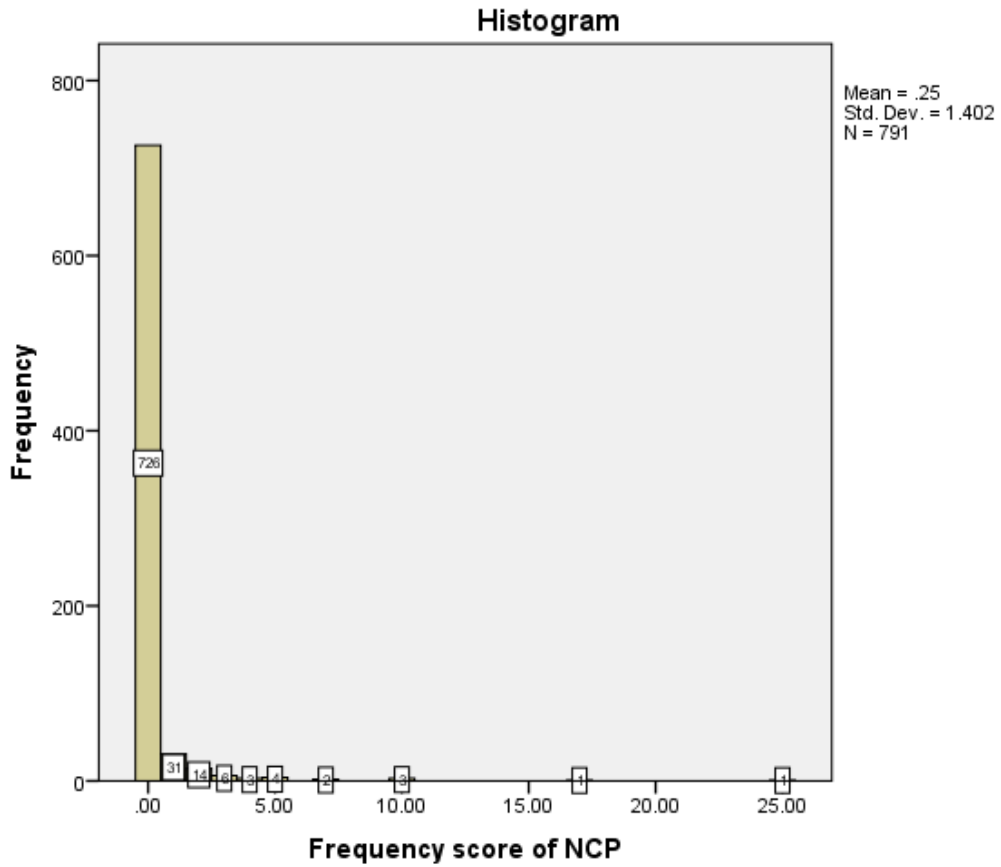
Frequency score of minor PM	n	%	Emotional symptoms		Conduct problems	
			Borderline	Abnormal	Borderline	Abnormal
0.00	620	78.4	44(7.1)	60(9.7)	51(8.2)	40(6.5)
1.00	49	6.2	8(16.3)	8(16.3)	3(6.1)	3(6.1)
2.00	34	4.3	4(11.8)	6(17.6)	4(11.8)	7(20.6)
3.00	32	4.0	2(6.3)	8(25.0)	1(3.1)	6(18.8)
4.00-5.00	25	3.2	5(20.0)	4(16.0)	4(16.0)	6(24.0)
6.00-8.00	13	1.6	2(15.4)	3(23.1)	5(38.5)	2(15.4)
9.00-12.00	12	1.4	2(16.7)	3(25.0)	0(0.0)	2(25.0)
13.00-18.00	6	0.7	0(0.0)	2(33.3)	0(0.0)	2(33.3)

D. Frequency score of emotional maltreatment (5 items)



Frequency score of EM	n (%)	Emotional symptoms		Conduct problems	
		Borderline	Abnormal	Borderline	Abnormal
0	415(52.5)	25(6.0)	31(7.5)	24(5.8)	19(4.6)
1	91(11.5)	7(7.7)	11(12.1)	8(8.8)	6(6.6)
2	52(6.6)	5(9.6)	3(5.8)	5(9.6)	3(5.8)
3	28(3.5)	3(10.7)	4(14.3)	3(10.7)	1(3.6)
4	27(3.4)	1(3.7)	5(18.5)	4(14.8)	3(11.1)
5	37(4.7)	5(13.5)	6(16.2)	6(16.2)	7(18.9)
6	25(3.2)	1(4.0)	4(16.0)	4(16.0)	2(8.0)
7-8	25(3.2)	4(16.0)	5(20.0)	1(4.0)	5(20.0)
9-11	22(2.8)	2(9.1)	4(18.2)	3(13.6)	5(22.7)
12-14	18(2.3)	3(16.7)	5(27.8)	4(22.2)	3(16.7)
15-18	19(2.3)	5(26.3)	4(21.1)	3(15.8)	4(21.1)
19-23	17(2.1)	4(23.5)	6(35.3)	2(11.8)	6(35.3)
24-50	15(1.9)	2(13.3)	6(40.0)	1(6.7)	5(33.3)

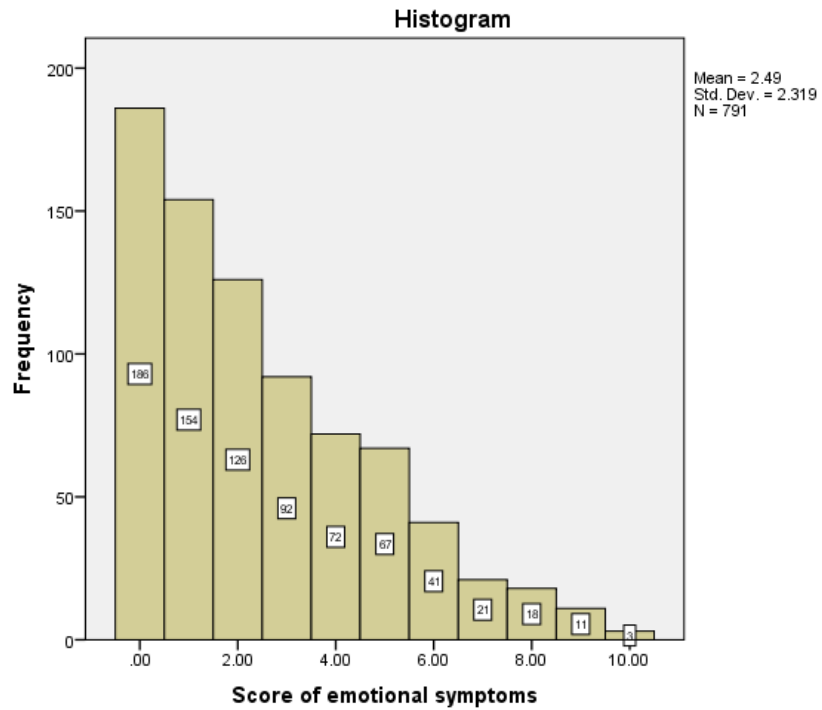
E. Frequency score of non-contact punishment (5 items)



Frequency score of NCP	N	%	Emotional symptoms		Conduct problems	
			Borderline	Abnormal	Borderline	Abnormal
0.00	726	91.8	61(8.4)	79(10.9)	64(8.8)	54(7.4)
1.00	31	3.9	2(6.5)	5(16.1)	1(3.2)	8(25.8)
2.00	14	1.8	1(7.1)	4(28.6)	0(0.0)	2(14.3)
3.00-4.00	9	1.2	1(11.1)	3(33.3)	2(22.2)	2(22.2)
5.00-10.00	9	1.2	2(22.2)	2(22.2)	1(11.1)	2(22.2)
17.00-25.00	2	0.2	0(0.0)	1(50.0)	0(0.0)	1(50.0)

Figure S7-2 Distribution of the scale scores of SDQ

A. The emotional symptoms scale



B. The conduct problems scale

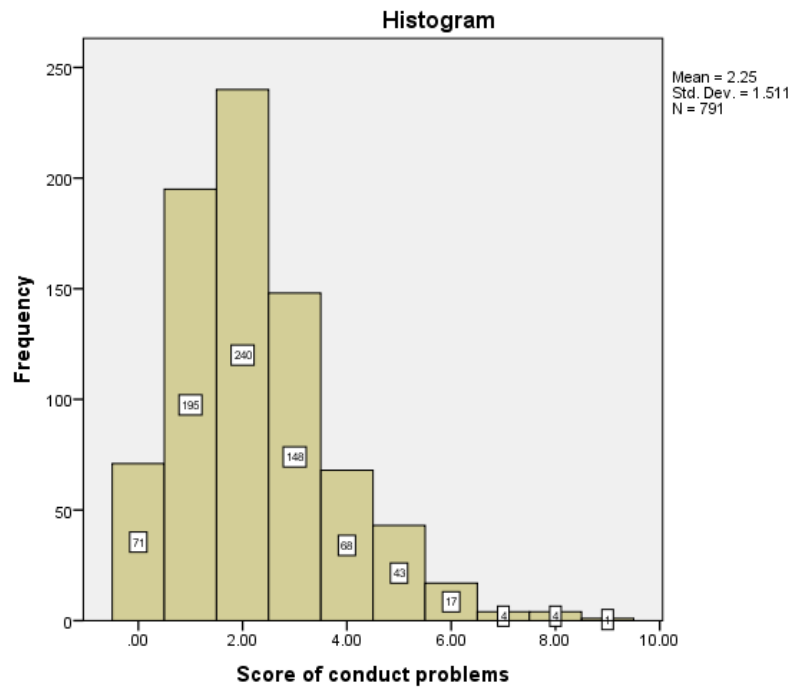


Table S7-2 Correlations of preceding-year prevalence of child maltreatment by family members and by parents

	PM-Family members	EM-Family members	NCP-Family members	PM-Parents	EM-Parents	NCP-Parents
PM-Family members	1.000	.399**	.242**	.882**	.364**	.229**
EM-Family members		1.000	.213**	.384**	.893**	.198**
NCP-Family members			1.000	.249**	.203**	.914**
PM-Parents				1.000	.411**	.249**
EM-Parents					1.000	.211**
NCP-Parents						1.000

Note: PM, physical maltreatment; EM, emotional maltreatment; NCP, non-contact punishment.

Table S7-3 Impact of maltreatment – results using the cut-offs for a British sample

A. Cut-offs for the SDQ

SDQ	Chinese children ($n=690$) ²⁹⁰			British children($n=4228$) ²⁹¹		
	Normal	Borderline	Abnormal	Normal	Borderline	Abnormal
Emotional symptoms	0-4	5	6-10	0-5	6	7-10
Conduct problems	0-3	4	5-10	0-3	4	5-10

B. Results using the cut-offs for a British sample

Impact of maltreatment on emotional symptoms: relative risk ratios (RRRs)^a and 95% CIs

Exposures	N (%)	Full model ^b	
		Borderline	Abnormal
PM (Ref.=No)			
Severe	36(4.6)	2.15(0.57,8.22)	1.78(0.54,5.87)
Moderate	218(27.6)	1.40(0.63,3.09)	2.01(1.00,4.04)*
Minor only [‡]	44(5.6)	1.08(0.23,5.08)	0.30(0.04,2.39)
EM (Ref.=No)			
Yes	376(47.5)	1.20(0.58,2.50)	2.54(1.22,5.12)*
NCP (Ref.=No)			
Yes	65(8.2)	0.51(0.14,1.91)	2.34(1.03,5.29)*
WV (Ref.=No)			
Yes	388(49.4)	1.45(0.72,2.92)	1.29(0.68,2.43)

Abbreviations: PM, physical maltreatment; EM, emotional maltreatment; NCP, non-contact punishment; CM, child maltreatment; WV, witnessing domestic violence. * $P<0.05$.

^a RRR from multinomial logistic regression; Reference category: Normal

^b Full model adjusted for all exposures simultaneously and covariates, including the number of children, maternal and paternal education, urban/rural residence, economic status, and family structure.

[‡]The category 'minor only' excluded the co-occurrence of moderate or severe physical maltreatment.

Table S7-4 Summary statistics for key variables reported by children

Variables	Sample with complete data (n=625)	Sample with incomplete data (n=166)	P	Imputed sample (N=791)
Outcomes				
Emotional symptoms				
Normal	502(80.3)	128(77.1)	0.511	630(79.6)
Borderline	53(8.5)	14(8.4)		67(8.5)
Abnormal	70(11.2)	24(14.5)		94(11.9)
Conduct problems				
Normal	512(81.9)	142(85.5)	0.397	654(82.7)
Borderline	58(9.3)	10(6.0)		68(8.6)
Abnormal	55(8.8)	14(8.4)		69(8.7)
Exposures				
Child maltreatment at home	368(58.9)	92(55.4)	0.422	460(58.2)
Physical maltreatment				
No	391(62.6)	102(61.4)	0.767	493(62.3)
Minor only	32(5.1)	12(7.2)		44(5.6)
Moderate	173(27.7)	45(27.1)		218(27.6)
Severe	29(4.6)	7(4.2)		36(4.6)
Emotional maltreatment	303(48.5)	73(44.0)	0.302	376(47.5)
Non-contact punishment	49(7.8)	16(9.6)	0.453	65(8.2)
Witness violence at home	314(50.2)	74(46.0)	0.333	390(49.3)
Covariates				
Child's age ($\bar{X} \pm S$)	12.7±1.1	12.3±1.1	<0.001	12.6±1.3
Child's sex				
Boy	315(50.4)	92(55.4)	0.250	407(51.5)
Girl	310(49.6)	74(44.6)		384(48.5)
Single child				
Yes	288(46.1)	62(38.5)	0.085	353(44.6)
No	337(53.9)	99(61.5)		438(55.4)
Mother's Education				
Primary school or below	121(19.4)	13(21.3)	0.246	157(19.8)
Middle school	322(51.5)	28(45.9)		394(49.8)
High school	134(21.4)	12(19.7)		169(21.4)
University or above	48(7.7)	8(13.1)		71(9.0)
Father's Education				
Primary school or below	113(18.1)	12(21.1)	0.190	147(18.6)
Middle school	320(51.2)	21(36.8)		384(48.5)
High school	128(20.5)	17(29.8)		169(21.4)
University or above	64(10.2)	7(12.3)		91(11.5)
Residence				
Urban	312(49.9)	108(65.1)	<0.001	420(53.1)
Rural	313(50.1)	58(34.9)		371(46.9)
Economic status				
High-income	181(29.0)	32(25.8)	0.032	228(28.8)
Middle	391(62.6)	72(58.1)		486(61.4)
Low-income	53(8.5)	20(16.1)		77(9.8)
Family structure				
Two biological parents	568(90.9)	128(83.1)	<0.001	706(88.3)
Single parent	32(5.1)	22(14.3)		55(6.9)
Remarried	25(4.0)	4(2.6)		30(3.8)

Table S7-5 Impact of maltreatment – original results

Impact of maltreatment on emotional symptoms: relative risk ratios (RRRs)^a and 95% CIs

Exposures	N (%)	Emotional symptoms Full model ^b		Conduct problems Full model ^b	
		Borderline	Abnormal	Borderline	Abnormal
PM (Ref.=No)					
Severe	36(4.6)	1.76(0.46,6.74)	1.95(0.68,5.62)	3.77(1.09,13.04)*	5.09(1.67,5.87)*
Moderate	218(27.6)	1.34(0.66,2.73)	2.12(1.17,3.84)*	1.81(0.95,3.45)	1.92(0.96,3.82)
Minor only [‡]	44(5.6)	3.31(1.19,9.26)*	0.33(0.04,2.62)	0.59(0.13,2.76)	0.33(0.04,2.69)
EM (Ref.=No)					
Yes	376(47.5)	1.51(0.79,2.91)	1.78(0.98,3.21)	1.77(0.94,3.32)	1.88(0.94,3.76)
NCP (Ref.=No)					
Yes	65(8.2)	1.68(0.59,0.31)	1.55(0.69,3.47)	0.62(0.19,2.00)	2.58(1.11,6.01)*
WV (Ref.=No)					
Yes	388(49.4)	1.63(0.87,3.04)	1.23(0.71,2.12)	2.00(1.09,3.68)*	1.78(0.94,3.39)

Abbreviations: PM, physical maltreatment; EM, emotional maltreatment; NCP, non-contact punishment; WV, witnessing domestic violence. **P*<0.05. ^a RRR from multinomial logistic regression; Reference category: Normal; ^b Full model adjusted for all exposures simultaneously and covariates, including the number of children, maternal and paternal education, urban/rural residence, economic status, and family structure. [‡]The category 'minor only' excluded the co-occurrence of moderate or severe physical maltreatment.

Table S7-6 Impact of maltreatment among boys

Exposure	N (%)	Emotional symptoms (Ref.=Normal) - adjusted for age and all exposures		Emotional symptoms (Ref.=Normal) - adjusted for socio-demographic factors and all exposures	
		Borderline OR(95%CI)	Abnormal OR(95%CI)	Borderline OR(95%CI)	Abnormal OR(95%CI)
PM (Ref.=No)					
Severe	24(5.9)	0.91(0.28,2.93)	4.45(1.45,13.66)*	0.89(0.07,11.37)	4.79(1.39,16.45)*
Moderate	125(30.7)	3.10(1.92,5.03)*	2.84(1.44,5.61)*	4.13(1.48,11.52)*	3.33(1.52,7.31)*
Minor only	20(4.9)	3.91(0.96,15.88)	0.57(0.08,4.02)	4.66(0.94,23.15)	0.76(0.09,6.53)
EM (Ref.=No)					
Yes	201(49.4)	1.98(1.24,3.16)	1.70(1.19,2.43)*	2.14(0.82,5.57)	1.62(0.77,3.43)
NCP (Ref.=No)					
Yes	65(8.2)	1.61(0.89,2.92)	0.93(0.38,2.27)	1.75(0.49,6.28)	0.82(0.31,2.19)
WV (Ref.=No)					
Yes	388(49.4)	1.37(0.60,3.15)	1.44(0.76,2.74)	1.52(0.60,3.86)	1.48(0.72,3.02)

Exposure	N (%)	Conduct problems (Ref.=Normal) - adjusted for age and all exposures		Conduct problems (Ref.=Normal) - adjusted for socio-demographic factors and all exposures	
		Borderline OR(95%CI)	Abnormal OR(95%CI)	Borderline OR(95%CI)	Abnormal OR(95%CI)
PM (Ref.=No)					
Severe	24(5.9)	0.49(0.06,4.25)	4.88(1.55,15.34)*	0.50(0.05,4.55)	6.66(1.71,26.00)*
Moderate	125(30.7)	0.94(0.42,2.10)	2.51(1.08,5.82)*	1.01(0.44,2.35)	3.20(1.32,7.76)*
Minor only	20(4.9)	0.32(0.04,2.62)	-	0.32(0.04,2.66)	-
EM (Ref.=No)					
Yes	201(49.4)	1.39(0.67,2.88)	1.97(1.30,2.98)*	1.43(0.66,3.08)	2.10(0.88,4.99)
NCP (Ref.=No)					
Yes	65(8.2)	0.89(0.46,1.74)	2.55(1.10,5.90)*	0.88(0.22,3.46)	2.67(1.03,6.90)*
WV (Ref.=No)					
Yes	388(49.4)	2.03(0.99,4.12)	1.44(0.70,2.94)	2.20(1.05,4.63)*	1.57(0.70,3.51)

Abbreviations: PM, physical maltreatment; EM, emotional maltreatment; NCP, non-contact punishment; CM, child maltreatment; WV, witnessing domestic violence. **P*<0.05.

Table S7-7 Impact of maltreatment among girls

Exposure	N (%)	Emotional symptoms (Ref.=Normal) - adjusted for age and all exposures		Emotional symptoms (Ref.=Normal) - adjusted for socio-demographic factors and all exposures	
		Borderline <i>OR(95%CI)</i>	Abnormal <i>OR(95%CI)</i>	Borderline <i>OR(95%CI)</i>	Abnormal <i>OR(95%CI)</i>
PM (Ref.=No)					
Severe	12(3.1)	1.91(0.41,8.82)	0.97(0.17,5.59)	2.29(0.40,13.23)	0.75(0.11,5.14)
Moderate	93(24.2)	0.58(0.22,1.48)	1.12(0.51,2.44)	0.49(0.18,1.33)	1.00(0.44,2.31)
Minor only	24(6.3)	1.46(0.44,4.83)	0.70(0.15,3.33)	1.72(0.45,6.52)	0.74(0.15,3.63)
EM (Ref.=No)					
Yes	175(45.6)	1.98(0.92,4.25)	2.24(1.05,4.77)*	2.13(0.94,4.81)	2.57(1.16,5.71)*
NCP(Ref.=No)					
Yes	65(8.2)	0.39(0.05,3.35)	2.43(0.81,7.31)	0.48(0.05,4.47)	2.37(0.75,7.48)
WV(Ref.=No)					
Yes	388(49.4)	1.87(0.90,3.88)	1.31(0.66,2.59)	2.36(1.08,5.19)*	1.38(0.67,2.84)

Abbreviations: PM, physical maltreatment; EM, emotional maltreatment; NCP, non-contact punishment; CM, child maltreatment; WV, witnessing domestic violence. **P*<0.05.

Exposure	N (%)	Conduct problems (Ref.=Normal) - adjusted for age and all exposures		Conduct problems (Ref.=Normal) - adjusted for socio-demographic factors and all exposures	
		Borderline <i>OR(95%CI)</i>	Abnormal <i>OR(95%CI)</i>	Borderline <i>OR(95%CI)</i>	Abnormal <i>OR(95%CI)</i>
PM (Ref.=No)					
Severe	12(3.1)	16.98(3.06,94.19)*	5.03(0.91,27.96)	29.41(3.32,260.68)*	8.00(0.86,74.41)
Moderate	93(24.2)	4.36(1.67,11.37)*	0.72(0.24,2.17)	5.10(1.77,14.75)*	0.73(0.22,2.47)
Minor only	24(6.3)	1.01(0.12,8.76)	1.73(0.44,6.80)	1.28(0.13,12.25)	1.92(0.40,9.21)
EM (Ref.=No)					
Yes	175(45.6)	4.07(1.37,12.06)*	2.40(1.06,7.09)*	5.40(1.67,17.44)*	3.69(1.29,10.53)*
NCP(Ref.=No)					
Yes	65(8.2)	0.19(0.02,1.70)	0.33(0.04,3.13)	0.27(0.02,3.01)	0.68(0.07,6.72)
WV(Ref.=No)					
Yes	388(49.4)	0.83(0.35,2.00)	1.93(0.77,4.80)	1.00(0.37,2.69)	2.57(0.92,7.17)

Abbreviations: PM, physical maltreatment; EM, emotional maltreatment; NCP, non-contact punishment; CM, child maltreatment; WV, witnessing domestic violence. **P*<0.05.