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初探兒童身體虐待及創傷後壓力疾患的盛行率和危險因子:

以四到八年級台灣學生樣本為例

Exploring Child Physical Abuse and PTSD in a Sample of Taiwanese Fourth to Eighth Graders:

Prevalence and Risk Factors

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摘要

目的 本研究目的在調查台灣兒童及青少年社區樣本中，兒童青少年身體虐待及其相關之創傷後壓力疾患的盛行率，並檢驗人口變項、受創者的主觀感覺、及創傷事件特徵對創傷後壓力疾患的影響。 **方法** 參與者年齡分佈為 9-15 歲。所有人均在班級團體施測情境下填答修改版的 UCLA PTSD Reaction Index for DSM-IV（兒童及青少年版），藉以調查其遭受身體虐待的頻率、發生距今時間、加害者、以及與身體虐待事件相關的創傷後壓力疾患症狀。 **結果** 分析結果顯示，兒童身體虐待的終身盛行率為 34%，男童(38.1%)的比率高於女童(29.8%)，以父母為最常見的加害人。在曾經遭受身體虐待的樣本中，13.6%現階段仍符合創傷後壓力疾患之診斷，另外 16.9%符合部分診斷。其中，性別和發展階段的差異均不顯著。危險因子的調查發現，主觀覺知威脅、遭受非父母之成人的身體虐待經驗、身體虐待之頻率、以及診斷準則 A2 均顯著預測創傷後壓力疾患。**討論** 本研究發現台灣樣本的兒童身體虐待頻率遠高於西方族群，但其後的創傷後壓力疾患症狀卻相對較少。華人文化的教養和教育觀、以及人際衝突解決模式的影響將在文中探討。

關鍵詞：兒童身體虐待、創傷後壓力疾患、盛行率、危險因子、主觀覺知威脅、加害人、文化差異。

The Prevalence and Risk Factors of Child Physical Abuse and PTSD in Taiwanese Children and Adolescents

Chia-Ying Chou

Abstract

Objective: The study aimed to report the lifetime prevalence of child physical abuse (CPA) and current prevalence of full/partial PTSD following CPA in the community sample of Taiwanese fourth to eighth graders. Risk factors of PTSD, including demographic factors, victims' subjective reactions, and event-related characteristics, were examined. **Method:** All participants, aged 9 to 15 years old, completed the modified version of UCLA PTSD Reaction Index for DSM-IV in class setting. The frequency, time elapsed, and perpetrators of their CPA and the following PTSD symptoms were assessed. **Results:** The lifetime prevalence of CPA was 34%. Males exhibited higher prevalence (38.1%) than females (29.8%). Parents were the commonest perpetrators. Of those who had experienced CPA, 13.6% and 16.9% met full and partial PTSD, respectively. No gender and grade difference was found. Perceived threat, experience of CPA by non-parent adults, CPA frequency, and criterion A2 were the major risk factors for PTSD. **Discussion:** CPA prevalence in Taiwan was higher than in the West, while posttraumatic symptom prevalence was lower. The influence of Chinese culture, by the ways of parenting and educational styles and strategies for coping with interpersonal conflicts, were discussed.

Keywords: Child Physical Abuse, PTSD, Prevalence, Risk Factors, Perceived Threat, Perpetrators, Cultural Difference.

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Chapter 1 Introduction

Definition of Trauma

Exposure to trauma has been regarded as a major risk of life throughout human history. In professional usage of psychology, the discussion of "trauma" focuses on both the event itself and the individual's psychic reaction afterward (Lin, 2001). While trauma is considered as an event, it has been regarded as damaging stimuli with certain characteristics. For instance, when posttraumatic stress disorder (PTSD) was first introduced in DSM-III (American Psychiatric Association, 1980) as a psychiatric diagnosis, trauma was defined as "a recognizable stressor that would evoke significant symptoms of distress in almost everyone" and was "outside the range of usual human experience." The examples embraced were combat experience and marital conflict. Afterward, more and more traumatic events were included. Green (1990) proposed eight dimensions that were consistently contained in different types of stressful life events: 1) threat to life and bodily integrity; 2) severe physical harm or injury; 3) receiving intentional injury; 4) being exposed to the grotesque; 5) experiencing violent / sudden loss of a loved one; 6) witnessing / learning of violence against a loved one; 7) learning of exposure to a noxious agent; and 8) causing death / severe harm to another. Many of these corresponded with the expanded definition of the DSM-III-R (American Psychiatric Association, 1987).

While trauma is considered to represent psychic reactions, it has usually been regarded as a kind of psychic concussion, breaching the existing mental structures (Brewin, 2003). For example, Freud claimed that trauma was characterized as

un-organized, un-classified, and un-containable by the individuals, and thus resulted in psychological symptoms (Brewin, 2003). Similarly, Bolton and Hill (1996) further proposed that people have a set of core beliefs to act in the world, including 1) the self is sufficiently competent to act, 2) the world is sufficiently predictable, and 3) the world provides sufficient satisfaction of needs. As trauma is extremely unpredictable, uncontrollable, and unpleasant, it challenges the core beliefs of human beings and thereby results in intense helplessness, fear, or horror (cited in Brewin, 2003).

Based on the above, researchers tended to believe that in addition to exposure per se, it is perhaps more crucial to learn the individuals' subjective feelings in predicting their subsequent adaptation or psychopathology. Accordingly, the DSM-IV (American Psychiatric Association, 1994) made an expansion of the stressor criteria. Criterion A1, similar to that in DSM-III-R, requires "the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others." Criterion A2, as an addition, requires "the person's response involved intense fear, helplessness, or horror. With this change, the goal to simultaneously consider the "event itself" which was regarded as relatively objective as well as the "emotional reactions" which was subjective was seemingly fulfilled.

However, while carefully examining the criterion A1, the issue about "subjectivity" can not be avoided. For instance, how do we clearly define the event when it involves "threatened death or serious injury" or "a threat to the physical integrity of self or others"? These descriptions imply the existence of the subjective appraisal of the event. In fact, some researchers have probed into one's appraisal of the event. For example, as early as Solomon, Mikulincer and Hobfoll's study in 1987, it showed that the subjective indicator of war stressfulness was a stronger predictor of combat stress reaction and PTSD than the objective ones. Also, Ehlers, Mayou, and

Bryant (1998) found that the perceived threat during motor vehicle accidents was predictive for PTSD, while the objective measures, such as injury severity, was not stably predictive. Similar findings were observed in victims of interpersonal violence. Dunmore, Clark, and Ehlers (1999) found that, among the victims of physical or sexual assault, while the nature of event and objective severity were alike, the PTSD group significantly experienced stronger perceived threat of life and of injury. These findings correspond to the argument of Lazarus, DeLongis, Folkman and Gruen proposed in 1985 that the individual's subjective assessment of the event was critical in determining the outcome because the stressfulness was dependent on the individual's evaluation of his or her resources, goals, and past experiences.

In sum, to capture a "trauma" more advisedly, researchers should consider the nature of the event. In other words, it will be important to examine both objective severity of the happening and subjective appraisal of the threat. Moreover, the consequent emotional reactions should also be taken into consideration.

Child Physical Abuse

Definition and Issues of Measurement

One of the prevalent traumatic experiences among children and adolescents is child physical abuse (abbreviated as CPA hereafter). Physical abuse generally refers to physical injuries to a child caused by punches or kicks, shakes or smacks, burns or scalds, drowning or suffocating, bites or poisons (Howe, 2005). However, according to Horton and Cruise (2001), the definition of CPA remains un-unified with considerable debates. For example, should it consist of only actions resulting in

observable harm or as well include those may endanger the person but yet to cause injury? Should it consist of only intentional actions or as well include unintentional behaviors bursted out of perpetrators' loss of self-control? Moreover, should it limit to actions done by parent(s) or parent-surrogate(s) or as well include other perpetrators, such as siblings, relatives, teachers, or peers? Furthermore, as culture difference is concerned, the disagreement about the line between acceptable discipline and CPA is not very clear. The demarcation between rumbling and CPA is even more complicated (Cawson, William, Brooker, & Kelly, 2000). Researchers define CPA on the basis of different interests, purposes, and targeted populations. This diversity leads to variant results in epidemiological studies, and should be carefully considered while comparing the results of different studies.

The sampling source of studies also needs to be considered. Generally speaking, prevalence estimates are most commonly drawn from two sources. One is the governmental statistics, based mostly on police or institutional reports. The other is the self-report questionnaires surveyed in communities or schools. For the governmental reports, underestimation of CPA incidents is almost inevitable and often with great discrepancy because most perpetrators would neither tell the truth nor allow the victims to. Therefore, CPA incidents are usually neglected or reported by others until they become very obvious or serious (Shen, 2005). For the self-report questionnaires, the problem of underestimation and variability still exist, although with less discrepancy. This may be because that the child and adult participants of the study are uncertain about the definition of CPA, afraid to blab, or misled by their incorrect memories (Horton & Cruise, 2001). Accordingly, while doing studies on CPA victims, researchers should address the above issues in order to increase the significance of the findings.

Prevalence of CPA

In the past decade, studies of the CPA incidence and prevalence have been increased, and may be compartmentalized as two main sources. The first one is the governmental report. Most governmental statistics were based on the reported cases to the authorities concerned, and usually included only those CPA incidents with caregivers as perpetrators. In the United States, Department of Health and Human Services (2008) documented that, in year 2006, 1.9 per 1000 children was reported and confirmed suffering from physical abuse. This report revealed a progressing decrease as compared with 2.5 per 1000 children in 1999 (U.S., Department of Health and Human Services, 2001) and 3.3 per 1000 children in 1997 (Wang & Daro, 1998). In Taiwan, the incidence is much less in the same period of time. According to the Ministry of Interior (2007), in the period from January to September, 2006, 5 per 10000 children and adolescents (0 to 17 year-old) were reported and confirmed being physically abused. Earlier in the whole year of 2005 and 2004, the report rate was 8.6 per 10000 and 7.1 per 10000 children, respectively.

The other source of CPA prevalence study is the community-based study. CPA definition in this approach is decided according to research interests, and is not necessarily limited to caretaker violence. In the U.S., Giaconia et al. (1995) investigated 384 adolescents (mean age of 17.9) from low social economical status (SES) and demonstrated that 6.5% of them recalled being physically abused by someone. Schaaf and McCanne (1998) retrospectively studied female college students and found that 11.2% reported experiencing physical abuse (ranging from whipping to bone fractures) by someone before age 15. In the United Kingdom, Cawson et al. (2000) surveyed 2869 young adults (aged 18 to 24 years old) and reported that 25% of the respondents experienced one or more forms of physical abuse by parent and

non-parent figures**,** including being hit, kicked, shacked, thrown knocked down, beaten up, choked, burned or scalded, or threatened with knife or gun during their childhood. In Denmark, Elklit (2002) found that 4.2% and 4.2% of the eighth grade students (mean age of 14.5) reported having physical abuse intra- and extra-family, respectively.

Among Asian population, CPA is much more prevalent. Sixty-five percent of the East Asian women living in America reported CPA by caretakers ranging from slapping and hair pulling to burn and bone broken (Marker, Shah, & Agha, 2005). In India, Segal (1995) investigated 319 high SES college-educated parents and found that 56% of the respondents used "culturally acceptable" violence such as hitting with rulers or sticks and hair brushing, 42% used "abusive violence" such as kicking, biting, and punching with fists, and 3% used "extreme violence" resulting serious or long-term injuries. In Japan, Yamamoto et al. (1999) investigated a sample of 19 year-old adolescents and reported that 40.3%, 25.2%, 14.3%, and 0.8% of the respondents retrospectively recalled slapping, punching with fist, hitting with implement, and burning by parents, respectively. In Taipei, the capital city of Taiwan, about 37.0% of the fifth and sixth graders had experienced physical violence such as punching, hitting, shaking, or beating hardly by parents (Shen, 2005).

In sum, Western community studies defined CPA by actions, such as slapping, hitting, punching, rather than by the injury severity. Many of them included non-parental physical violence as part of their investigation targets. They reported CPA prevalence ranging from 6.5% to 25.0%. Differently, Eastern Asian investigations of CPA prevalence were fewer and more divergent in samples' SES. They also defined CPA by actions, but nearly all of them focused only on parental abuse. The CPA prevalence reported in Eastern Asia raged from 37% to 56%.

Demographic Risk Factors of CPA

Several demographic characteristics of children are related to the risk of CPA victimization. One is the child's age. According to the report of the Third National Incidence Study of Child Abuse and Neglect (NIS-3) (1996), the number of incidence among 6- to 11-year-old children was significantly higher than that of the older adolescent, because the younger children lack of ability to escape or self-defend. On the other hand, the NIS-3 (1996) also found the number of CPA incidence among 6- to 11-year-olds higher than the 0- to 5-year-old preschoolers. This finding was ascribed to less accessibility of the preschooler to community professionals. Similar profile was reported in Hong Kong, the number of cases admitted to hospital for suspected CPA rises for the age beyond 6 years old (Lee, Li & So, 2006).

Another risk factor is the child's gender. The contribution of gender on the occurrence of CPA is still inconclusive across studies. In the U.S., Giaconia et al. (1995) reported that no gender difference was found among adolescents experiencing CPA by parent or non-parent figures. In the U.K., Cawson et al. (2000) found a small gender difference with slightly more men than women reporting CPA in their childhood. In Canada, MacMillan and colleagues (1999) found that more men (31.2%) recalled childhood physical abuse than women (21.1%). Differently, in Denmark, Elklit (2002) found that the prevalence of CPA among boys (3.1%) was not significantly different from that among girls (4.2%). As for the Asian data, among the fifth and sixth graders in Taipei City, boys were more frequently to be verbally and/or physically abused by parents (Shen, 2005). Similarly, in Hong Kong, among the children admitted into a regional hospital for management of suspected physical abuse during 1998 to 2004, boys (54%) also outnumbered girls (46%) (Lee, et al., 2006). However, with regard to school CPA, Lin (1992) found that around the same

proportion of males and females had experienced physical punishments by teachers.

The Perpetrators

The familial perpetrators

The majority of child physical abuse happens in the family setting (Pritchard, 2004, Cawson et al., 2000). In the survey of the U.S. Department of Health and Human Services (2008), 82.4% of the perpetrators at home were parents. Very closely, in the U.K., Cawson (2000) also reported that 49% CPA perpetrators were mothers, while another 40% were fathers. Similar profile was observed in Taiwan. According to the Ministry of Interior (2007), parents and adaptive parents were the commonest intra-family perpetrators (79.3%), followed by caretakers (7.3%), relatives (5.0%), and cohabitants of either parent (2.4%).

Sibling abuse describes the actions which are on purpose to cause serious harm, and age-inappropriate, in terms of the development maturity of morality, empathy, and problem solving strategy. Because sibling abuse is usually undistinguished from sibling rivalry, it is perhaps the most underreported aspect of family violence (Flowers, 2000; Kurst-Swanger & Petcosky, 2003). Only in the last decade have studies laid stress on the fact that other children, namely the biological or step siblings, could be one of the sources of intra-family CPA (Pritchard, 2004). Straus and colleagues stated that, according to the survey in 1980, over 19 million children (nearly one-third of the children), mostly of older age, in the U.S. engaged in abusive acts against their siblings (cited in Corby, 2000).

Intra-family abuse renders the victims deprived of essential social support from family. The victims may consequently become more vulnerable for pathological outcomes (Hobfoll, 1998). CPA by parents results in physical, psychological and

developmental harms. Physical harms include observable or internal injuries, central nervous system damage, and death. Psychological and developmental harms include insecurity in interpersonal relation such as withdrawal, lack of trust; damage in cognitive functions such as language, intelligence, and memory; impairments in mood regulation and self concept such as emotional numbing, hostility, violent tendencies, low self-esteem; and other difficulties such as hypervigilance, pseudomature behaviors, and many psychiatric symptoms (Flowers, 2000; Kurst-Swanger & Petcosky, 2003).

CPA by siblings also results in a number of devastating effects. The psychological and developmental impacts are perhaps the severest (Flowers, 2000; Kurst-Swanger & Petcosky, 2003). Victims may have nightmares or be hyper-active, and may have long-term impairments in cognitive function, language development, motor coordination, self-esteem, and interpersonal relationship.

The non-familial perpetrators

Although most studies and investigations targeted on the intra-family events, CPA is also present and in need of serious concern outside of the family. For example, the commonest extra-family abusers were other children and adolescents (Pritchard, 2004) and mostly from the school (Cawson, 2000). Bullying was a prevalent problem of children of all ages (Cawson, 2000). Balding (2004) found that around 25% of the sixth graders in the U.K. reported being bullied physically or non-physically such as teasing, asking for money, often or every day. Among them, more boys reported physical-form bullying than girls did. Similarly, Cawson (2000) reported that bullying by peers was a feature of the childhood experience of nearly one-third of the young adults, aging from 18 to 24 years. Fourteen to fifteen percent of them recalled having been physically bullied. Despite the common distress of bullying people in most

society feel, some of these acts move on to the level outside of normal range and cause serious harm (Pritchard, 2004). One-fifth of the bullied individuals in Cawson's study reported that it had occurred regularly, and a quarter stated that it resulted in long term psychological damage on them.

In addition to peers, extra-family adults are also possible perpetrators. According to Cawson (2000), 71% of extra-family adult bullying occurred at school. It is reasonable to assume that school teachers may be one of the main sources of CPA. This may be especially true in the Eastern Asian culture, because physical discipline is often regarded as a kind of efficient way to correct child behaviors. For example, in Taiwan, Lin (1992) interviewed 87 experienced high school teachers, 37.3% of them reported having physically disciplined students in the ways of pandy, spanking, and/or slap on the face. In the same study, she also interviewed the students, to a higher percentage, 46.3% of the junior high school students and 60.7% of the senior high school students reported having been physically disciplined by their teachers. As this investigation reveals, CPA by school teachers would be a serious problem, because the boundary between discipline and abuse is sometimes vague.

In sum, CPA happens inside and outside of family setting. Inside of family, the investigations of parental violence have demonstrated its wide-spread and severe impact, while studies of sibling violence are also gathering recently to address the issue. Outside of family, many researchers have pointed out the frequent phenomena and consequences of peer physical bullying. In addition, several of them also attended to the violence of school teachers, which was especially common in the Eastern Asia, but its damage was rarely treated.

Posttraumatic Stress Disorder

Diagnostic Criteria for PTSD

The reaction of trauma was named as “gross stress reaction” in DSM-I (1952), and replaced by the term “transient situational disturbance” in DSM-II (1968). PTSD was initially recognized as a diagnostic category in DSM-III (1980) by the American Psychiatric Association. The essential features of PTSD are a set of symptoms following exposure to a serious trauma. Pfefferbaum (1997) summarized these symptoms as follows: persistent re-experiencing of the event or stressor; persistent avoidance of triggers or reminders of the event; numbing of general responsiveness; and persistent symptoms of arousal. According to the latest version of the DSM, i.e., DSM-IV-TR (2000), diagnostic criteria are outlined in Table 1:

Table 1.
DSM-IV-TR Diagnostic Criteria for Posttraumatic Stress Disorder.

Criterion A (Stressor): the person has been exposed to a traumatic event in which both of the following were present:

(1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others

(2) the person's response involved intense fear, helplessness, or horror. Note: In children, this may be expressed instead by disorganized or agitated behavior.

Criterion B (Reexperiencing): The traumatic event is persistently reexperienced in one (or more) of the following ways:

(1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. Note: In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.

(2) recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognizable content.

(3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). Note: In young children, trauma-specific reenactment may occur.
(4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event
(5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

Criterion C (Avoidance): Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

(1) efforts to avoid thoughts, feelings, or conversations associated with the trauma
(2) efforts to avoid activities, places, or people that arouse recollections of the trauma
(3) inability to recall an important aspect of the trauma
(4) markedly diminished interest or participation in significant activities
(5) feeling of detachment or estrangement from others
(6) restricted range of affect (e.g., unable to have loving feelings)
(7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

Criterion D (Arousal): Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

(1) difficulty falling or staying asleep
(2) irritability or outbursts of anger
(3) difficulty concentrating
(4) hypervigilance
(5) exaggerated startle response

Criterion E (Duration): Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.

Criterion F (Distress of Impairment): The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Source: American Psychiatric Association, 2000

Diagnosing PTSD in Children and Adolescents

The childhood PTSD was recognized and its difference with adulthood PTSD was identified in DSM-III-R (1987). Over the past two decades, the awareness of the presentation and impact of PTSD among child and adolescent populations have been increased. The newest version of DSM, DSM-IV-TR (American Psychiatric Association, 2000), noted that children may present disorganized or agitated behavior (A2), instead of fear, horror, or helplessness seen among adults. They may demonstrate repetitive play (B1) that reenacts trauma-specific themes (B3), instead of the intrusion symptoms seen among adults. They may have frightening dreams, with monsters, rescuing others, or threat to self or others (B2), instead of distressing dreams about the trauma. In addition, as a sense of a foreshortened future (C7), children may believe that their lives will be too short to become adults. To assess the diminishing of activity interest (C4) and constriction of affect (C6), the report of caretakers and other adult observers are critical because children may have difficult to report themselves.

Specific descriptions and criteria modified for children and adolescents are under development. However, the recognition of PTSD in children still lags behind that in adults, and the criteria are still very "adult-centric" (Pfefferbaum, 1997; Yule, 2001). Hillary and Schare (1993) investigated 14 young victims (aged 13 to 18) of physical and sexual abuse, and found that they presented some PTSD symptoms, such as nightmares and restricted range of affect. However, none of them met PTSD diagnosis, and their PTSD symptom profiles were different from adult PTSD patients. Similarly, Rojas and Lee (2004) also claimed that few traumatized children and adolescents met the DSM criteria for PTSD, but some of them meet other diagnoses. For example,

trauma-exposed children may exhibit disorganized or agitated behaviors, and therefore be diagnosed with attention deficit hyperactivity disorder (ADHD) or oppositional defiant disorder (ODD).

As stated, the youths present distinct symptomatology for their underdevelopement in many areas, such as cognition and personality-identity integration. The youths may develop fears for certain cues related to the trauma, difficulties going to sleep, night terrors, nightmares, and waking through the night. In addition, guilt, shame, and self-reproach are also common because they are under the developmental stage of egocentricity, and tend to assume that they have effectuated their trauma (Rojas & Lee, 2004).

As stated, by the current criteria, many children, suffering from trauma-related symptomatology and indeed need clinical attention, would not be diagnosed with PTSD. According to Giaconia and colleagues (1995), partial symptomatology was common among traumatized children and adolescents, and might still disable the individual greatly, although the full diagnosis was not met. Therefore, it is crucial for researchers to examine individuals' symptoms in all three criteria and pay attention to the partial diagnosis of PTSD (Pfefferbaum, 1997).

Course of PTSD

According to the DSM-IV-TR (American Psychiatry Association, 2000), PTSD symptoms generally begin within three months after the trauma, although there may be occasional delayed onset. About half of the cases recover completely within three months. Nevertheless, many still persist for more than one year after the trauma. Some individuals experience waxing and waning of symptoms, reactivated by reminders of the original trauma itself, life stressors, or new traumas.

For children and adolescents, PTSD symptoms are chronic in many cases (Rojas

& Lee, 2004). Giaconia and colleague (1995) reported in their community survey that around two fifths of the PTSD symptoms lasted for 1 to 3 years among 37.5% of the adolescents with PTSD. Yet, the process still varies in accord with trauma types. In a study on car accident, children's post-trauma symptoms seem to reach the maximum level within the first year and decrease markedly at the third year (Winje & Ulvik, 1998). In a study on the sinking ship accident, 52% of the victims developed PTSD within a few weeks. About one third recovered within one year of onset. Still a quarter suffered from PTSD for over five years (Yule et al., 2000). In a study on war trauma, the rate of children with moderate to severe PTSD reactions was 40.6% in the first half year, and 10.0% in the 18th month follow-up after the end or war (Thabet & Vostanis, 2000). Although studies consistently demonstrate a gradual improvement of symptoms among children and adolescents, the impact of trauma is long-lasting, and with a high risk of relapse (Thabet & Vostanis, 2000).

Prevalence of PTSD

Prevalence of PTSD among adults

Information about the PTSD prevalence among general community population and the at-risk populations is valuable for understanding this disease. Among the community-based survey of adults, the prevalence of lifetime PTSD increases by years. Early studies reported lower PTSD prevalence, ranging from 1% to 1.3% during the time period from 1987 to 1991 (Cuffe et al., 1998). Recent studies reported higher rates: 7.8% in a large national survey of community residents aged 15 to 54 year-olds (Kessler, Sonnega, Bromet, Hughes & Nelson, 1995). This statistic is very closely to about 8% stated in the DSM-IV-TR (2000). In the Eastern societies, a large Korean survey reported the lifetime prevalence of 1.7% and 2.7%, respectively for

full and partial PTSD which was defined as having at least one symptom in each category (Jeon et al., 2007).

PTSD prevalence among at-risk populations seems to be higher and varies with the type of trauma experienced. In the U.S., Breslau and colleagues reported that lifetime PTSD prevalence of victims of life threat, physical assault, and seeing others killed or badly injured was 25%; and 80% and 12% for PTSD prevalence of rape and accidental injury, respectively (Breslau, Davis, Andreski & Peterson, 1991). In Mexico, lifetime prevalence of PTSD among adults experiencing violence attack, such as rape, physical abuse, threat with weapon, was 34% (Baker et al., 2005). In Taiwan, the full and partial PTSD prevalence 10 months after the 921 Chi-Chi earthquake was 10.3% and 19.0%, respectively, among two rural communities near the epicenter (Lai, Chang, Connor, Lee, & Davidson, 2004).

Prevalence of PTSD among children and adolescents

Systematic community-based survey regarding children and adolescents was relatively fewer. Gabbay, Oatis, Silva and Hirsch (2004) reviewed three studies in 1990s with participants of adolescents and young adults and pointed out that the lifetime prevalence of lifetime PTSD varied from 2% to 9.2%. For the at-risk population studies, Giaconia et al. (1995) reported 14.5% lifetime PTSD prevalence. Cuffe et al. (1998) reported 12.4% current PTSD. Both studies examined participants of mixed types of trauma. As for studies of specific trauma type, Bokszczanin (2007) demonstrated that, 28 months after a flood, 18% of the victims aged 11 to 21 met full diagnosis of PTSD in Poland. McDermott and Cvitanovich (2000) found that, 3 months after a motor vehicle accident, 22% of the victims aged from 8 to 13 suffered from moderate or severe PTSD, and 35% suffered from mild PTSD. Amad and colleagues (2000) reported that, 5 years after the military operation “Anfal,” 87% of

children were diagnosed with PTSD in Iraq. Gabbay et al. (2004) reviewed several studies and pointed out that the prevalence rate of PTSD in at-risk populations ranged from 3% to 100%. According to him, the difference among studies may be related to factors such as trauma type, sample characteristic, time elapsed, and assessment tool.

Prevalence of CPA-related PTSD

In a national survey for adults, Kessler and colleagues (1999) reported that childhood physical abuse, rape, and childhood neglect are the three types of trauma most likely to develop PTSD (Rosenberg, 2001). Among child and adolescent population, Kilpatrick and colleagues (2003) in a large national community-based study also demonstrated that physical abuse significantly predicted PTSD diagnosis among 12 to 17 year-old adolescents. However, prevalence studies purely investigating CPA-related PTSD were few. Most of them combined the data of CPA with other forms of child maltreatment, such as child sexual abuse (CSA), neglect, and emotional abuse. In the U. S., Giaconia et al. (1995) reported that 12.0% of the 18 year-olds, who had lifetime physical assault experiences by anyone, met all criteria, including criterion E, for lifetime PTSD. In a Danish adolescent sample (aged 13 to 15), after CPA by parent figures, the lifetime prevalence of full PTSD among females and males was 37.5% and 16.7%, respectively, while the partial PTSD, defined as meeting two of the three criteria and missing the other by only one symptom, was 50.0% and 40.0%, respectively. After CPA by non-parent figures, the full PTSD prevalence among females and males was 12.5% and 10.0%, respectively, while the partial PTSD prevalence was 20.0% and 28.6%, respectively (Elklit, 2002). We lump CPA incidents with different perpetrators and genders together, the full PTSD prevalence rate would be around 18.8%, while the partial PTSD was 34.4%. In another study of children (aged 4 to12 years) admitted to a psychiatric outpatient

clinic over half year, around 20% of the physical abused developed PTSD (Adams, Everett, O'Neal, 1992).

Risk Factors of PTSD

Risk Factors of PTSD

Risk factors related to the traumatic event

The factors contributing to the development of PTSD include both situational and personal aspects. The nature of trauma is one of the situational factors. Monahon (1993) suggested several risk components of the nature of the event associated with childhood PTSD. Regarding to the severity and frequency of trauma exposure, he stated that children experiencing physical abuse extensively, repeatedly, with longer duration, and resulting long-term physical injury were more prone to severer PTSD symptoms. Similar argument that the chronicity of PTSD associated with sequential childhood physical abuse was also claimed by Rodriguez and colleagues in year 1998 (cited in Pynoos, et al., 1999).

Regarding to the victim-perpetrator relation, Monahon (1993) also pointed out that if the traumas had involved loved ones as perpetrators or victims, children lost a safe harbor for recovery, and therefore rendered themselves severer psychological damage. Similarly, if the family function had been disrupted, recovery could be more difficult. These notions were close to Tyler's view in 2002, in that more distress resulted when the perpetrator was in a close relationship with the victim (cited in Pritchard, 2004).

Risk factors related to the victim's subjective appraisal

Monahon (1993) stated that children perceiving themselves as closer to the threat of life may receive greater impacts than those seeing themselves at some distance from or lack awareness of the danger. In addition, children who believe the trauma would result in a series of later negative events and life changes may experience greater stress than those regard trauma as a single and unusual event that is not likely to alter their life circumstances.

Risk factors related to the victims' demographic characteristics

Some characteristics of the CPA victims relate with the risk for PTSD development. One of these is the victims' age. Most researchers claim that young children may be more vulnerable when confronting situations threatening their safety (Monahon, 1993). Still, others raise different opinions. For example, Winje and Ulvik (1998) suggested that age seems to be unrelated to symptoms after single-event trauma.

Another factor related to the CPA risk is child's gender. In Kilpatrick and colleagues' community-based study (2003), girls' PTSD prevalence rate (6.3%) was twice as much as boys' (3.7%). In addition, gender significantly predicted the PTSD diagnosis. Giaconia and colleagues (1995) also demonstrated that after trauma exposure, female children and adolescents were six times as likely as males to develop PTSD, and their symptoms were severer than males in all of the three diagnostic categories. Similarly, Cuffe and colleagues' study (1998) of older adolescents (aged 16 to 22 years) also revealed that females reported more symptoms and were more likely to satisfy all diagnostic categories than males. This trend also exists in the Eastern societies. In South Korea, being female was associated with

higher risk for full and partial PTSD (Jeon, et al., 2007). Similarly, in Taiwan, after a severe earthquake, the proportion of female was higher in the full/partial PTSD group than the non-PTSD group (Lai, Chang, Connor, Lee, & Davidson, 2004). As for the CPA-related PTSD, in the study of Elklit (2002), lifetime full CPA-related PTSD after physical abuse by parents or non-parent figures, yielded 25.0% for girls and 12.5% for boys.

Being female seemed to be a universal risk factor for developing PTSD as illustrated above. However, it is still unclear whether gender constitutes a risk factor or whether this effect is in fact a product of other characteristics (Brewin, Andrews, & Valentine, 2000). Some researchers argued that this was because females were prone to encountering more risky events, such as sexual abuse, to result in PTSD (Brewin et al., 2000). However, in Giaconia and colleagues' (1995) survey, the finding of gender bias could not be solely explained by different types of trauma exposure, as the results held the same regardless of examined traumas combined and separated. Clearly, this phenomenon is in need to be specified by further research, for example, to probe into both genders' subjective reactions toward the events.

The Importance of Probing Victims' Subjective Reactions

The role of victims' subjective perception

According to Rasmussen et al. (2007), measurement of criterion A has been a general problem of PTSD epidemiological studies. Most researchers estimated the prevalence of certain trauma without investigating the frequency with which the event is perceived as "intense fear, helplessness, horror," or "threat of serious injury." Those studies presumed that subjective distress would come up with events that seemed to be traumatic. However, this is usually not true. For example, only 17% of those

children and adolescents who experienced physical discipline or violent treatment regarded the treatment was too strict and harsh, and even less, 7% considered it as "abuse" (Cawson, 2000). In other words, researchers seem to be more likely to regard certain treatment as abusive than the participants' subjective perception.

This insufficiency of considering subjective evaluation not only results in overestimation of PTSD prevalence due to disregarding individuals' resilience in the face of stressful events, but also interferes our understanding about the meditating role of subjective evaluation that may link between stressful events and PTSD (Breslau & Kessler, 2001; Rasmussen, et al., 2007). Breslau and Kessler (2001) found that more males (92.2%) than females (87.1%) were exposed to criterion A1 events. Differently, while examining events meeting both A1 and A2, the proportion was lower in males (73.3%) than females (81.6%) due to females' higher likelihood to experience A2 emotion while exposed to A1 events. As the conditional probability of PTSD in participants met A1 was 9.2%, while that in those met A2 was 12.0%, this finding may serve as a supporting evidence for the argument that females' greater risk in developing PTSD was partly due to their higher probability of accompanying subjective distress.

The concordance of objective and subjective evaluations

Despite the pivotal role of subjective perception, few studies investigated the concordance rate of objective and subjective evaluations. As for the concordance of Criterion A1 and A2, Breslau and Kessler (2001) found that among the inquired nineteen kinds of A1 events, 76.5% involved A2 emotion. To examine separately, the highest concordance rate was seen in life-threatening illness (93.5%), followed by rape (93.3%) and sexual assault other than rape (87.9%). The lowest was seen in military combat (33.8%) and shot/stabbed (38.4%). For being badly beaten by

somebody, the concordance rate of A1 and A2 was 78.1%, with 55.8% among males and 99.5% among females. On the other hand, regarding to the concordance of A1 events and perceived threat of life, Briere and Elliott (2000) reported that the lifetime prevalence of at least one nature disaster was 22% among the general population, and 64% of them experienced perceived threat of life.

The Current Study

Child physical abuse is one of the serious and prevalent stressors during childhood. Its consequences could be very damaging and long-lasting. Governmental and institutional reports of CPA prevalence have been gathering in most societies. However, community-based research addressing this issue is much less than expected. Even fewer studies have probed into the CPA-related PTSD. This paucity is especially the case in Asia, where the CPA prevalence is higher, but the corresponding investigations are relatively fewer.

The current study defines the presence of CPA when an individual younger than 18 years of age has experienced violent treatments resulting in burn, extravasations, or bone broken by any other person(s). We aimed to provide the community-based epidemiological information of CPA and CPA-related PTSD among fourth to eighth graders in Taiwan. In addition, we also attempted to investigate the risk factors of CPA and CPA-related PTSD. As the negative impacts of parental abuse as well as non-parental and extra-family abuse stated in the earlier sessions, the present study focused on not only the parental abuse, but also the non-parental abuse. The impact of the perpetrators' relation with the victim on the development of PTSD symptoms was also examined.

In addition, prior researches often neglected participants' subjective evaluations and emotion reactions to the traumatic events. In that, the objective experience of certain serious events was ascertained so as to presume the participants' perceived threat and emotional distress. In order to understand the subjective experience of CPA and its impact on PTSD, the current study investigated the concordance rate of objective CPA experience and Criterion A2 emotional distress, as well as the perceived threat of life. Furthermore, the role of these subjective experiences as risk factors in predicting PTSD was also examined.

Moreover, because children and adolescents are different from adults in their symptomatology, in addition to the full PTSD, the present study also concerned the partial PTSD. The partial PTSD was defined as satisfying DSM-IV criterion B and either one of criterion C and D after a traumatic event meeting criterion A1 and A2 simultaneously. The current study considered mainly about the symptom criteria for PTSD. DSM-IV criterion E (duration) and F (distress of impairment) were not inquired. Therefore, the terms, full/partial PTSD used in this thesis refers to the condition meeting all/partial symptom criteria, rather than being equivalent to clinical PTSD diagnose.

In sum, the purposes of the current study were as follow: Firstly, we investigated the lifetime prevalence of CPA among Taiwanese students in the community. Secondly, the prevalence of current full and partial CPA-related PTSD was estimated. Thirdly, for risk factor investigation, we examined victims' subjective evaluation for CPA, and further probed into its impact on PTSD. Finally, other victim-related and event-related risk factors were evaluated as well.

Chapter 2 Method

Participants and the Procedure

The data of this study was collected in Taipei City and Taipei County for several reasons. Concerning the CPA case report rates, according to the Ministry of Interior (2007), Taipei City reported the lowest CPA rate (four victims per 1000 children), while Taipei County reported the fourthly high (twenty victims per 1000 children) among all administrative divisions in Taiwan during the period of January to September in 2006. These two areas were close in locations, but contrary in situations of CPA governmental report. The community-based investigations were therefore expected. Concerning the area characteristics, Taipei City is the Capital of Taiwan. Taipei City and Taipei County is the biggest metropolitan area of Taiwan, with the largest number of residents and the highest density of population. In addition, Taipei is also an important cultural, transporting, and financial join of the East and Southeast Asia. As described, Taipei is an important and representative area in East Asia. CPA investigations are therefore valuable.

In order to get the permission to conduct research in elementary and junior high schools, we were introduced to directors of student counseling centers in an elementary school in Taipei County as well as one elementary school and two junior high schools in Taipei City. All of them and the presidents of these schools accepted our official documents and agreed to support the study. Considering students' ability of reading, comprehension and school schedule, fourth to eighth grade were chosen.

The study was conducted in classroom setting. All classes in each grade were included with the informed consent of every teacher. Before starting, the research purpose was debriefed. A letter of consent was signed by each participant.

After that, the research questionnaire was completed with researchers reading aloud and explaining instructions section by section. Two thousand and two hundred thirty-five students completed the questionnaire. Among them, 269 were excluded from analysis, because they did not follow the questionnaire instruction to single a most-stressful trauma among their life events, or omitted more than five items in the PTSD symptom-check section. Age and gender distribution were statistically equivalent between the excluded and total sample. The valid sample size was 1,966, with 88% coverage of the surveyed number. The final sample included 996 males (50.7%) and 970 females (49.3%). The average age was 12.2 years (*SD* = 1.4. range = 9-15 years). Among the sample, 637 (32.4%) were seventh to eighth graders (12 to 15 years), and 1329 (67.6%) were forth to sixth graders (9 to 13 years). Sample characteristics in different schools and areas are summarized in Table 2.

Table 2

Sample Demographic Characteristics by Areas and Schools.

	Taipei City			**Taipei County**
District	Da-an	Sin-yi	Wan-hua	Ban-ciao
School	Heping High School	Xinyi Junior High School	Wanta Elementary School	Jeu-Guang Elementary School
Grade				
fourth	-	-	217	258
fifth	-	-	236	195
sixth	-	-	204	219
seventh	180	176	-	-
eighth	197	84	-	-
Gender				
male	174	121	330	371
female	203	139	327	301
Total	377	260	657	672

Considering our research interests, the focused sample in several parts of our analysis would be narrowed to the participants who had experienced CPA and singled it as their most-stressful life event (n = 236). Among this sample, gender distribution was 137 males (58.1%) and 99 females (41.9%). The average age was 12.4 years (SD = 1.3, range = 9-15 years). Ninety one (38.6%) were seventh to eighth graders (12 to 15 years), while another 145 (61.4%) were forth to sixth graders (9 to 14 years).

Measures

The UCLA PTSD Reaction Index for DSM-IV, Children and Adolescent version

The UCLA PTSD Reaction Index for DSM-IV (UCLA PTSD-RI; Steinberg, Brymer, Decker, & Pynoos, 2004) is an instrument for the assessment of trauma exposure, and post-traumatic stress symptoms. The child and adolescent version was designed for participants aged from 7 to 18 years old. This measure consists of three sections. Section I is a lifetime trauma exposure survey, listing twelve categories of trauma, including physical and sexual abuse, domestic violence, natural disaster, medical trauma etc., checked as present or absent. The youth is asked to identify a most-stressful trauma from the present ones he/she just checked on Section I, and answer the time elapsed since that trauma. Section II and III are answered according to that trauma. If the individuals had experienced that trauma more that one time (for example, the chronic CPA), they were instructed to answer according to the most stressful incident. Section II allows for an evaluation of A1 and A2 DSM-IV criteria during the event, which is also checked as present or absent. Section III is a 22-items checklist mapping onto the DSM-IV criteria B (intrusion), C (avoidance), and D (arousal) for PTSD. Two additional items assessing fear of trauma recurrence and

trauma-related guilt are also included. These items are rated on a 5-point frequency scale (0 = none, 1 = little, 2 = some, 3 = much, 4 = most of the time).

The UCLA PTSD-RI demonstrated good psychometric property. Rodriguez, Steinberg, Saltzman, and Pynoos reported a good convergent validity, 0.70, in comparison with the PTSD Module of the Schedule for Affective Disorders and Schizophrenia for School-Age Children, Epidemiologic version (cited in Steinberg, et al., 2004). They also reported Chronbach's alpha of 0.92, indicating satisfactory internal consistency. The test-retest reliability coefficient of 0.84 is well (Roussos et al., 2005).

The Chinese version of the UCLA PTSD-RI also displays good psychometric property. According to Kao (2006), the PTSD severity score was highly correlated with the Chinese version of Impact of Event Scale (Kong, 2005) (r = .75). The one-week test-retest reliability was satisfactory (r = .80). In addition, according to Chen, Lin, Tseng, and Wu (2002) and Lin (2001), the internal consistency was also good, with Cronbach's α of 0.91 for the total scale.

Revised version in the present study

Considering the research purpose, we revised some part of Section I in the original UCLA PTSD-RI. Firstly, five questions: child physical abuse, witnessing family physical violence, child sexual abuse, as research-interest-related items, plus natural disaster, and accident, as filler items, were reworded into a more precise and concrete description by referring to the Traumatic Life Events Questionnaire (Kubany et al., 2000). For example, being hit, punched, kicked "very hard" was reworded as "resulted in burn, extravasations, or bone broken." Secondly, the frequency of trauma was investigated by checking one, two, three, four, five, or more than five times. Thirdly, the information of perpetrator in the above three kinds of interpersonal

trauma was surveyed by a multiple-choice question to inspect who would be the perpetrator(s), including father, mother, peers, non-parent adults, and stranger (more than one choice is acceptable). Finally, due to these revisions, the original items, "being beaten up, shot at or threatened to be hurt badly in your town" and "being in an earthquake…," could be embraced in our revised items about child physical abuse and natural disaster, and therefore were deleted for pithiness.

Data Analysis

Firstly, the rate of CPA and that of abuse by each specific perpetrator were calculated for total sample and the CPA sample. Chi-square analyses were used to examine the difference of gender and developmental stage (child: the fourth to sixth graders; adolescent: the seventh to eighth graders) on these rates. The original perpetrator-inquiry question, which allowed more than one choice among five kinds of relation, was recoded into separate yes/no questions to examine the rate of being abused by certain relation of perpetrator, independently. In these analyses, the items of "father" and "mother" were combined into "parents," which represented abuse by either one or both parents.

Secondly, we probed into the concordance rates of criterion A2 and perceived threat of life/injury. These analyses were conducted in those who identified CPA as their most-stressful life event. Chi-square analyses were used to examine the gender and CPA frequency difference on these concordance rates. Moreover, a series of t-test were used to compare the present age and time elapsed between the participants simultaneously experienced criterion A2/perceived threat and those did not. Here, the original frequency category (0 to 6) of CPA was recoded into three categories: only one time was recoded as rarely-happened, two to four times was recoded as

occasionally-happened, and five times and above was recoded as frequently-happened CPA.

Thirdly, the prevalence of CPA-related PTSD, both full and partial diagnoses, and that of the criterion B, C, and D among the total sample and those experienced CPA as their most-stressful life event were calculated. While conducting these analyses, endorsement of “much of the time” and “most of the time” in PTSD symptom items of the UCLA PTSD-RI was counted as presence of a symptom (Steinberg et al., 2004). The criteria satisfaction and PTSD diagnosis were all based on DSM-IV.

Finally, those who identified CPA as their most-stressful life event were used to investigate the probable risk factors of PTSD. Chi-square analyses were used to examine the association between PTSD diagnosis/criteria satisfaction and the targeted variables, including gender, CPA by certain relation of perpetrator, CPA frequency, criterion A2, and perceived threat. Furthermore, hierarchical regression analyses were conducted to examine the variables predicting PTSD diagnosis, criteria satisfaction, and PTSD symptom severity.

Chapter 3 Results

The Prevalence and Perpetrators of CPA

The prevalence and perpetrator of CPA

Six hundred and sixty-eight (34.0%) of the total participants (N = 1966) reported having at least one CPA experience, resulting in burn, extravasations, or bone broken, and thus met definition of DSM-IV criterion A1 for PTSD. The area difference of CPA prevalence was not significant ($\chi^2(1, 1966) = 1.15, p > .10$) (see Table 3).

Table 3

CPA prevalence in Two Surveyed Areas.

Area	Prevalence (%)
Taipei County	35.6
Taipei City	33.2

Considering the perpetrator types, four hundred thirty-two (22.0%) of the total sample (N = 1966) had been physically abused by either one or both parents, two hundred and seven (10.6%) by peers, one hundred fifty-one (7.7%) by familiar adults other than parents, and thirty-one (1.6%) by strangers. As shown in Table 4, being physically abused by parents was negatively correlated with being physically abused by other perpetrators. Furthermore, one hundred forty-seven (7.50%) participants had been abused by multiple perpetrators of more than one kind of relationships.

Gender and grade difference in CPA prevalence

Table 5 displays the result of gender and grade difference on CPA. Only gender difference was found on CPA prevalence. Compared with females, males had a higher proportion of CPA experience. In regarding to the perpetrator types, Table 6 reveals

significant gender difference. Males were in greater percentage than females to expose to CPA by perpetrators of all relations, except parents. The grade difference was only significant in the part of peer CPA. Fourth to sixth graders are of greater percentage than seventh to eighth graders to expose to CPA by peers.

Table 4
Correlation of CPA by Different Perpetrators.

	1	2	3	4
1 Parents	-			
2 Peers	-.34**	-		
3 Adults	-.26**	-.01	-	
4 Strangers	-.14**	.01	.07	-

** $p < .01$ (2-tailed).

Table 5
Gender and Grade Effect on CPA Prevalence.

	%	χ^2
Gender:		14.94**
Male	38.1	
Female	29.8	
Grade:		.45
Fourth to sixth graders	33.4	
Seventh to eighth graders	35.0	

** $p < .01$.

Table 6
Gender and Grade Effect on CPA by Different Perpetrators.

	Parents		Peers		Adults		Strangers	
	%	χ^2	%	χ^2	%	χ^2	%	χ^2
Gender:		2.45[a]		24.01***		4.54*		7.01**
Male	23.5		13.9		9.0		2.3	
Female	20.6		7.1		6.4		.8	
Grade:		1.00[b]		4.97*		.12		.13
Fourth to sixth graders	21.4		11.6		7.6		1.5	
Seventh to eighth graders	23.4		8.3		8.0		1.7	

Note. Adult = familiar non-parent adults.
a. father: $\chi^2 = 6.06$*; mother: $\chi^2 = 1.63$, b. father: $\chi^2 = .63$; mother: $\chi^2 = .04$.
* $p < .05$. ** $p < .01$. *** $p < .001$.

The Concordance of Objective Injury and Subjective Stressfulness of CPA

More than one-third (668) of our surveyed sample experienced CPA. These CPA resulted in serious injury, and, by our definition, satisfied DSM-IV criterion A1. However, it was found that during or after the abuse incident, not every victim experienced serious emotional distress, as stated in criterion A2, or perceived threat of life or serious injury, as stated in criterion A1. In this section, we target on 236 participants, who rated CPA as their most stressful life event, to examine the concordance rate of objective and subjective stressfulness. To debrief, among the 379 male and 289 female CPA victims, 137 and 99 were enrolled in the following analysis, respectively. No gender difference was found on the screened-in proportion ($\chi^2(1, 668) = .26$, $p > .10$). The results showed that the concordance rate of objective injury and criterion A2 fulfillment was 88.6%, while that and perceived threat was 66.5%.

The age and time elapsed difference

Participants concordantly rated CPA incidents satisfying A2 were now in younger age (M = 12.3, SD = 1.3) than those did not (M = 13.0, SD = 1.1) (t = -2.89, $p < .01$). In addition, the events concordantly meeting criteria A2 were with shorter time elapsed (M = 2.1, SD = 2.4) than those not (M = 3.4, SD = 3.0) (t = -2.06, $p < .05$). On the other hand, participants concordantly rated CPA incidents with perceived threat were also now in younger age (M = 12.3, SD = 1.4) than those did not (M = 12.7, SD = 1.1) (t = -2.29, $p < .05$).

The gender and frequency difference

Table 7 reveals that the concordance of objective injury and criterion A2 is slightly different by CPA frequency. The proportion of concordantly meeting criterion

A2 was slightly less among the rarely-happened CPA than that among the occasionally-happened and frequently-happened CPA. On the other hand, the concordance of perceived threat was slightly different by gender, and significantly influenced by frequency. To formularize, the proportion of perceiving threat was slightly higher among females than males. Moreover, the proportion of perceiving threat was significantly higher among the occasionally-happened than the frequently-happened CPA, and lower among the rarely-happened than the frequently-happened CPA.

Table 7

Gender and Frequency Effect on Concordance Rates of Criterion A1 and Criterion A2/ Perceived Threat.

	Criterion A2		Perceived Threat	
	%	X^2	%	X^2
Gender		.30		2.95†
Male	87.6		62.0	
Female	89.9		72.7	
Frequency		5.07†		10.56**
Rare	82.8		57.5	
Occasional	90.0		81.4	
Frequent	93.7		63.3	

† $p < .10$. ** $p < .01$.

Prevalence of CPA-related PTSD

Prevalence of CPA-related PTSD

Thirty-two (1.63%) of the total sample (N = 1966) currently met full PTSD symptom criteria. Another nine (0.46%), and thirty-one (1.58%) met partial PTSD symptom criterion of criteria A, B, C, and criterion A, B, D, respectively. Compare

with females (2.8%), more males (4.5%) currently meet full or partial PTSD (χ^2(1, 1966) = 4.19, p < .05). Narrowing down to the sample of CPA victims, who rated CPA as the most stressful life event (N =236), full PTSD prevalence would be 13.6%, while partial PTSD prevalence would be 3.8%, and 13.1%, respectively for criterion A, B, C, and A, B, D satisfaction. The prior gender difference was no longer found, neither was the grade difference (see Table 8).

Table 8
Gender and Grade Effect on Full/Partial PTSD among Victims Rating CPA as the Most Stressful Life Event.

	Full PTSD		Partial PTSD		Full + Partial PTSD	
	%	χ^2	%	χ^2	%	χ^2
Gender		.87		.08		.84
Male	15.3		17.5		32.8	
Female	11.1		16.2		27.3	
Grade		.84		.02		.64
Fourth to sixth	15.2		17.2		32.4	
Seventh to eighth	11.0		16.5		27.5	

Prevalence of PTSD criteria and symptoms

Ninety-nine (5.0%), forty-six (2.3%), and eighty-eight (4.5%) of the total sample (N = 1966) currently met PTSD criterion B (intrusion), C (avoidance), and D (arousal), respectively. Narrowing down to the sample of CPA victims, who rated CPA as the most stressful life event (N =236), the prevalence for intrusion, avoidance, and arousal cluster criteria would be 41.9%, 19.5%, and 37.3%, respectively. Grade and gender difference are not revealed (Table 9). Fulfillment of each symptom cluster positively correlates with that of the others (see Table 10). Furthermore, the prevalence of each symptom in each gender and grade of CPA victims is summarized in Table 11.

Table 9

Gender and Grade Effect on PTSD Symptom Cluster Prevalence among Victims Rating CPA as the Most Stressful Life Event.

	Re-experience		Avoidance		Hyper-arousal	
	%	X^2	%	X^2	%	X^2
Gender		.15		.19		.00
Male	40.9		20.4		37.2	
Female	43.4		18.2		37.4	
Grade		.41		.03		.02
Fourth to sixth	40.7		19.3		37.2	
Seventh to eighth	44.9		20.2		38.2	

Table 10

Correlation of Criterion Fulfillment of Three Symptom Clusters.

	1	2	3
1 Intrusion	-		
2 Avoidance	.49**	-	
3 Arousal	.48**	.37**	-

** $p < .01$ (2-tailed).

Table 11
Gender and Grade Effect on PTSD Symptom Cluster Prevalence among Victims Rating CPA as the Most Stressful Life Event.

	Male (%)	Female (%)	χ^2	4th-6th (%)	7th-8th (%)	χ^2
Re-experiencing						
distress in recollections	20.4	19.2	5.60	24.8	12.1	5.69*
dreams of event	8.0	5.1	.81	6.2	7.7	.20
feelings of reoccurrence	13.9	10.1	.76	13.1	11.0	.23
psychological distress	27.0	29.3	.15	27.6	28.6	.03
physiological reactivity	9.5	16.2	2.37	13.1	11.0	.23
Avoidance						
avoid thoughts/feelings of event	21.9	31.3	2.66	26.2	25.3	.03
avoid activities that arouse recollections	18.2	15.2	.39	17.9	15.4	.26
inability to recall aspect of event	13.1	12.1	.05	13.1	12.1	.05
diminished interests in activities	9.5	17.2	3.06†	11.7	14.3	.33
detachment/estrangement from others	11.7	13.1	.11	9.7	16.5	2.42
unable to have loving/happy feelings	20.4	18.2	.19	20.0	19.8	.00
unable to have sad/angry feelings	18.2	19.2	.03	18.6	18.7	.00
not expect to have normal life span	9.5	20.2	5.48*	11.7	17.6	1.60
feel pessimistic/passive for the future	17.5	17.2	.01	17.2	17.6	.01
Arousal						
difficulty falling or staying asleep	13.9	19.2	1.21	17.0	16.5	.01
irritability or outbursts of anger	43.8	35.4	1.70	39.3	41.8	.14
argument/physical conflict with others	15.3	17.2	.15	15.9	16.5	.02
difficulty concentrating	19.7	21.2	.08	20.0	20.9	.03
hyper-vigilance	24.8	31.3	1.22	30.3	23.1	1.48
exaggerated startle response	14.6	16.2	.11	16.6	13.2	.49
Associated Features						
fear of recurrence	28.5	31.3	0.22	35.2	20.9	5.48*
guilty feelings about the trauma	14.6	19.2	0.88	11.7	24.2	6.28*

† $p < .1$. * $p < .05$.

Predictors of CPA-related PTSD

Correlates of CPA-related PTSD

Correlates of PTSD criteria

The probable risk factors of each PTSD diagnostic criterion were examined among CPA victims, who rated CPA as their most stressful life event (N = 236). Table 12 reveals that the proportion of criterion B fulfillment differs by several factors: CPA by non-parents perpetrator, CPA frequency, criterion A2, and perceived threat. Specifically speaking, the proportion of criterion B fulfillment was higher among victims ever been absused by non-parent familiar adults than those not, among high-frequency victims than middle- and low-frequency ones, among victims rating CPA as fulfilling criterion A2 than those not, and among victims perceived the incidents as life- of injury- threatening than those not. In addition, two factors, age and time elapsed from the incident, were also examined. Spearman's correlation revealed that the fulfillment of criterion B correlated with neither present age (r = -.06, p > .10) nor time elapsed (r = -.18, p > .10).

The proportion of criterion C fulfillment differs by several factors: CPA by father, non-parents adults, CPA frequency, and perceived threat. Specifically speaking, the proportion of criterion C fulfillment was higher among victims ever been abused by fathers than those not, among victims ever been abused by familiar adults than those not, among high-frequency victims than low-frequency ones, and among victims perceived the incidents as life- of injury- threatening than those not. In addition, Spearman's correlation revealed that the fulfillment of criterion C correlated with neither the present age (r = -.02, p > .10) nor the time elapsed from the incident (r = -.08, p > .10).

The proportion of criterion D fulfillment differs by several factors: CPA by non-parent adults, CPA frequency, criterion A2 satisfaction, and perceived threat. Specifically speaking, the proportion of criterion D fulfillment was higher among victims ever been abused by familiar adults than those not, among high-frequency victims than low-frequency ones, among victims rate CPA as fulfilling criterion A2 than those not, and among victims perceived the incidents as life- of injury-threatening than those not. In addition, Spearman's correlation revealed that the fulfillment of criterion D correlated with neither present age (r = -.06, p > .10) nor time elapsed from the incident (r = -.13, p > .10).

Correlates of full PTSD symptom criteria

Similar analysis was conducted to examine the potential risk factors of full PTSD symptom criteria among the same CPA sample, who rated CPA as their most stressful life event (N = 236). Table 12 reveals that the proportion of full PTSD symptom criteria fulfillment differs by several factors: CPA frequency and perceived threat. Specifically speaking, the proportion of current full PTSD symptom criteria fulfillment was higher among high-frequency victims than low-frequency ones, and among victims perceived the incidents as life- of injury- threatening than those not. In addition, Spearman's correlation analysis indicated that PTSD diagnosis was negatively correlated with present age (r = -.14, p < .05) and the time elapsed from the incident (r = -.23, p < .01).

Table 12

Effect of Probable Risk Factors on PTSD Symptom Criteria.

	Re-experience		Avoidance		Arousal		full PTSD	
	%	X^2	%	X^2	%	X^2	%	X^2
Abused by Parent		.34[a]		1.12[b]		1.67[c]		1.26[d]
Yes	43.6		21.5		39.9		15.3	
No	39.4		15.5		31.0		9.9	
Abused by Peers		.81		.83		.16		.30
Yes	46.9		23.4		39.1		15.6	
No	40.0		18.0		36.3		12.9	
Abused by Adults		5.66*		5.67*		6.94**		.87
Yes	56.9		31.4		52.9		17.6	
No	38.3		16.4		32.8		12.6	
Abused by Strangers		.27		—[e]		.21		—[e]
Yes	35.7		—		42.9		—	
No	42.7		—		36.8		—	
Frequency		6.17*		16.37**		8.95*		10.51**
Rare	35.6		8.0		25.3		4.6	
Occasional	37.1		18.6		41.4		15.7	
Frequent	53.2		32.9		46.8		21.5	
Criterion A2		6.87**		1.36		4.59*		—[e]
Meet	45.0		20.6		39.7		—	
Not Meet	18.5		11.1		18.5		—	
Perceive Threat		15.62**		4.96*		14.74*		5.30*
With	51.0		23.6		45.9		17.2	
Without	24.1		11.4		20.3		6.3	

a. father: X^2= .39; mother: X^2= .76 b. father: X^2= 4.43*; mother: X^2= .00.
c. father: X^2= 2.85; mother: X^2 = 3.10 d. father: X^2 = 4.03*; mother: X^2 = .71 e. cell number < 5.
* $p < .05$. ** $p < .01$. *** $p < .001$.

Predictors of CPA-related PTSD

Predictors of PTSD symptom criteria

After examining the potential correlates, four hierarchical logistic regressions were carried out to examine the probable risk factors of cluster B (re-experience), C (avoidance), D (arousal), and full PTSD symptom criteria fulfillment (see Table 13). On the first step of the hierarchy, we entered the demographic variables: gender and age. On the second step of the hierarchy, we entered event-related variables: time elapsed, frequency, physical abuse experience by parents, and physical abuse experience by non-parent familiar adults. Two variables, physical abuse experience by peers and that by strangers, were excluded from the regression analysis. The former exclusion was because it did not reveal significant impact in the Chi-square analysis. The later exclusion was due to small cell number. Finally, criterion A2 fulfillment and perceived threat were entered in the third step of the hierarchy.

Results revealed that, while using the re-experience criterion fulfillment as the dependent variable, the total set of variables explained 19.1% of the variance, $\chi^2(8, 236) = 34.13$, $p < .001$. The first step contributed 0.9% of the variance, $\chi^2(2, 236) = 1.56$, $p > .10$. No factor was significant in predicting the dependent variable. The second step added 9.0% to the explained variance, $\chi^2(4, 236) = 15.52$, $p < .01$. Experience of abuse by non-parent familiar adults significantly predicted the re-experience criterion fulfillment. The third step added 9.2% of the explained variance, $\chi^2(2, 236) = 17.05$, $p < .001$. Perceived threat was significant in predicting the dependent variable.

While using the avoidance criterion fulfillment as the dependent variable, the total set of variables explained 15.8% of the variance, $\chi^2(8, 236) = 22.99$, $p < .01$. The first step contributed 0% of the variance, $\chi^2(2, 236) = .04$, $p > .10$. No factor was

significant in predicting the dependent variable. The second step added 12.6% to the explained variance, $\chi^2(4, 236) = 17.98$, $p < .01$. CPA frequency significantly predicted the avoidance criterion fulfillment. The third step added 3.3% of the explained variance, $\chi^2(2, 236) = 4.97$, $p < .10$. Perceived threat was significant in predicting the dependent variable.

While using the arousal criterion satisfaction as the dependent variable, the total set of variables explained 18.2% of the variance, $\chi^2(8, 236) = 31.64$, $p < .001$. The first step contributed 0.5% of the variance, $\chi^2(2, 236) = .82$, $p > .10$. No factor was significant in predicting the dependent variable. The second step added 10.0% to the explained variance, $\chi^2(4, 236) = 16.82$, $p < .01$. No factor was significant in predicting the dependent variable. The third step added 7.7% of the explained variance, $\chi^2(2, 236) = 14.00$, $p < .01$. Perceived threat was significant in predicting the arousal criterion satisfaction.

While using the full PTSD symptom criteria fulfillment as the dependent variable, the total set of variables explained 13.3% of the variance, $\chi^2(8, 236) = 16.71$, $p < .05$. The first step contributed 1.0% of the variance, $\chi^2(2, 236) = 1.20$, $p > .10$. No factor was significant in predicting the dependent variable. The second step added 1.6% to the explained variance, $\chi^2(4, 236) = 11.04$, $p < .05$. CPA frequency significantly predicted the full PTSD symptom criteria fulfillment. The third step added 10.7% of the explained variance, $\chi^2(2, 236) = 4.47$, $p > .10$. No factor entered in this step significantly predicted the dependent variable.

Table 13

The Summary of Hierarchical Logistic Regression Models Predicting Full PTSD Diagnosis and Symptom Criteria Fulfillment.

	Criterion B			Criterion C			Criterion D			PTSD diagnosis		
Variable	*B*	*SE*	*W*	*B*	*SE*	*W*	*B*	*SE*	*W*	*B*	*SE*	*W*
Step 1												
Gender	.25	.28	.85	.05	.35	.02	.05	.28	.03	-.07	.40	.03
Present Age	-.09	.10	.78	-.02	.13	.02	-.09	.10	.80	-.15	.14	1.15
Step 2												
Gender	.52	.30	3.01†	.41	.38	1.17	.32	.31	1.05	.28	.43	.43
Present Age	-.05	.11	.24	-.03	.14	.05	-.05	.11	.17	-.13	.15	.74
Frequency	.12	.08	2.43	.29	.10	**9.39****	.14	.08	3.47†	.26	.11	**6.02***
Time Elapsed	-.11	.06	2.95†	.02	.08	.05	-.13	.07	3.78†	-.07	.10	.59
A. Parents	.27	.33	.64	.21	.43	.24	.47	.35	1.89	.34	.49	.48
A. Adults	.82	.38	**4.78***	.62	.43	2.14	.61	.38	2.56	.23	.49	.21
Step 3												
Gender	.41	.32	1.69	.32	.39	.67	.20	.32	.38	.16	.44	.13
Present Age	.01	.11	.02	.01	.14	.01	.01	.11	.00	-.09	.15	.35
Frequency	.11	.08	1.90	.29	.10	**9.06****	.14	.08	3.17†	.26	.11	**5.67***
Time Elapsed	-.10	.06	2.26	.02	.08	.09	-.12	.07	3.36†	-.06	.09	.40
A. Parents	.08	.35	.05	.12	.44	.07	.36	.36	.99	.22	.50	.18
A. Adults	.93	.40	**5.56***	.64	.44	2.13	.66	.40	2.77†	.24	.50	.23
Criterion A2	.70	.58	1.46	.07	.74	.01	.13	.59	.05	.70	1.10	.41
Perceive Threat	1.17	.34	**11.58****	.93	.46	**4.06***	1.24	.37	**11.45****	.91	.54	2.87†

Note. A. Parents = Abused by Parents; A. Adults = Abused by Adults.
† $p < .1$. * $p < .05$. ** $p < .01$.

Predictors of PTSD symptom severity

Four hierarchical linear regressions were carried out to examine the targeted variables that predicted intrusion, avoidance, arousal, and total PTSD symptom severity scores (see Table 14). The variables were entered by the same steps in the logistic regressions. While using the re-experience symptom severity as the dependent variable, The total set of variables explained 24.0% of the variance, $F(8, 213) = 8.40$, $p < .001$. The first step contributed 3.7% of the variance, $F(2, 219) = 4.24$, $p < .05$. The present age of the victim was significant in predicting the dependent variable.

The second step added 8.9% to the explained variance, $F(4, 215) = 5.43$, $p < .001$. Experience of abuse by non-parent familiar adults and CPA frequency significantly predicted the dependent variable. The third step added 11.4% of the explained variance, $F(2, 213) = 15.99$, $p < .001$. Perceived threat was significant in predicting the dependent variable.

While using the avoidance symptom severity as the dependent variable, the total set of variables explained 16.7% of the variance, $F(8, 213) = 6.53$, $p < .001$. The first step contributed 1.4% of the variance, $F(2, 219) = 1.59$, $p > .10$. No factor was significant in predicting the dependent variable. The second step added 11.1% to the explained variance, $F(4, 215) = 6.79$, $p < .001$. Experience of abuse by non-parent familiar adults and CPA frequency significantly predicted the dependent variable. The third step added 7.2% of the explained variance, $F(2, 213) = 9.53$, $p < .001$. Criterion A2 and perceived threat were both significant in predicting the dependent variable.

While using the arousal symptom severity as the dependent variable, the total set of variables explained 21.0% of the variance, $F(8, 213) = 7.09$, $p < .001$. The first step contributed 1.1% of the variance, $F(2, 219) = 1.24$, $p > .10$. No factor was significant in predicting the dependent variable. The second step added 8.2% to the explained variance, $F(4, 215) = 4.86$, $p < .01$. Experience of abuse by non-parent familiar adults and CPA frequency significantly predicted the dependent variable. The third step added 11.7% of the explained variance, $F(2, 213) = 15.79$, $p < .001$. Perceived threat was significant in predicting the dependent variable.

Finally, while using the total PTSD symptom severity as the dependent variable, the total set of variables explained 22.6% of the variance, $F(8, 213) = 9.04$, $p < .001$. The first step contributed 1.7% of the variance, $F(2, 219) = 1.88$, $p > .10$. Non factor was significant in predicting the dependent variable. The second step added 12.1% to the explained variance, $F(4, 215) = 7.58$, $p < .001$. Experience of abuse by non-parent

familiar adults and CPA frequency significantly predicted the dependent variable. The third step added 11.5% of the explained variance, $F(2, 213) = 16.44$, $p < .001$. Criterion A2 and perceived threat were both significant in predicting the dependent variable.

Table 14

The Summary of Hierarchical Linear Regression Models Predicting PTSD Symptom Severity.

	Criterion B Score			Criterion C Score			Criterion D Score			Total Score		
Variable	*B*	*SE*	Beta	*B*	*SE*	Beta	*B*	*SE*	Beta	*B*	*SE*	Beta
Step 1[a]												
Gender	.61	.61	.07	1.47	.82	.12†	.76	.61	.09	2.54	1.82	.09
Present Age	-.62	.22	**-.19****	-.06	.30	-.01	-.22	.22	-.07	-.94	.66	-.10
Step 2[b]												
Gender	1.06	.61	.12†	2.10	.81	**.17***	1.18	.61	.13†	4.16	1.79	**.15***
Present Age	-.57	.22	**-.17***	.04	.29	.01	-.20	.22	-.06	-.78	.64	-.08
Frequency	.87	.39	**.16***	1.53	.52	**.21****	.92	.39	**.17***	3.15	1.14	**.20****
Time Elapsed	-.12	.12	-.07	-.02	.16	-.01	-.04	.12	-.02	-.38	.36	-.07
A. Parents	1.14	.68	.12†	1.39	.90	.11	.91	.68	.10	3.52	1.98	.12†
A. Adults	2.04	.77	**.18****	2.86	1.02	**.19****	1.88	.76	**.17***	6.96	2.24	**.21****
Step 3[c]												
Gender	.64	.58	.07	1.65	.79	**.14***	.76	.58	.08	2.90	1.69	.11†
Present Age	-.36	.21	-.12†	.16	.28	.04	-.02	.21	-.01	-.24	.61	-.02
Frequency	.67	.37	.12†	1.30	.50	**.18***	.73	.37	**.14***	2.55	1.07	**.16***
Time Elapsed	-.07	.12	-.04	-.05	.16	-.02	.01	.12	.00	-.22	.34	-.04
A. Parents	.71	.65	.07	.85	.88	.07	.48	.64	.05	2.16	1.88	.08
A. Adults	2.15	.72	**.19****	2.99	.98	**.20****	1.98	.71	**.18****	7.30	2.09	**.22****
Criterion A2	1.59	.93	.11†	2.73	1.27	**.15***	1.64	.92	.12†	5.68	2.71	**.14***
Perceive Threat	2.90	.61	**.30*****	2.58	.83	**.20****	2.84	.61	**.30*****	8.17	1.78	**.29*****

Note. A. Parents = Abused by Parents; A. Adults = Abused by Adults.
† $p < .1$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Chapter 4 Discussion

The Prevalence of CPA

The current study was a community-based survey among 1966 forth to eighth graders in Taipei City and Taipei County. The result showed that 34.0% of our participants reported lifetime CPA, with boys of greater proportion than girls. Similar to the investigations in other countries (Cawson, 2000; the Ministry of Interior, 2007; the U. S. Department of Health and Human Services, 2008), the most frequently reported perpetrators were parents. The secondly frequent were peers, followed by non-parent adults, and finally strangers. Therefore, although the CPA definition in the current study included the non-parent abuse, the majority of the reported cases might be victims of parental abuse.

Comparing with the governmental report of CPA prevalence

Governmental statistics usually target on parental CPA. Compared with the Ministry of Interior's (2005) statistics, our finding of parental CPA prevalence was much higher. The discrepancy between the community-based survey and the governmental statistics (i.e., 22% vs. 5 per 10000 in January to September, 2006) may be due to the high underreport rate of CPA case described in the Introduction Chapter. This argument can be supported by the relatively smaller discrepancy of CPA prevalence between the current study (22%) and Shen's (2005) (37%), which was also a community-based parental CPA prevalence survey.

The finding of area difference for CPA prevalence was also incongruent between the current study and the governmental report. According to the Ministry of Interior (2005), Taipei City reported the lowest CPA rate, while Taipei County reported the

fourthly high. However, in our community survey, CPA prevalence was not statistically different between these two areas. Two reasons may be responsible for this discrepancy. First, the sample of the current study limited in some schools. We did not randomly select schools covering all districts in the two administrative divisions. Therefore, the finding may not be representative enough to generalize to the whole area. Second, the underreport rates between these two areas may be different. For example, the life and living style in Taipei City may result in its higher underreport rate than Taipei County. Therefore, the governmental CPA report rate may be lower in Taipei City. To examine this argument, a cross-district community random sampling method should be adopted in future studies.

Comparing with other community surveys of CPA prevalence

Among the community-based researches, compared with other Eastern Asia surveys, which focused on parental CPA, our finding revealed lower parental CPA prevalence rate (i.e., 37%~65% vs. 22%, respectively). This discrepancy may be due to the difference of CPA definition. Most studies defined CPA by actions. More strictly, we defined CPA with restriction of injury severity. Only those suffered from serious injuries were counted. Therefore, the estimated prevalence may be lower.

On the other hand, compared with the Western surveys, which target on both parental and non-parental CPA, our finding revealed higher CPA prevalence (i.e., 6.5%~25.0% vs. 34.0%, respectively). Cultural factors may contribute greatly to the high prevalence. Adults with higher acceptance of violence were more likely to abuse children (Marker et al., 2005). Accordingly, the prevalent CPA in Taiwan may be related to the higher acceptance of physical discipline in the Chinese culture. Taiwanese parents and teachers hold the traditional parenting and educational values,

which emphasize control and strict discipline (Lin, 1992; Lin & Fu, 1990). Many adults believe that they are responsible for correcting children's misbehaviors strictly, and physical punishment is one of the efficient and legitimate ways to account for this duty (Lin, 1992). Moreover, influenced by the concept of filial piety, children are also expected to comply with their parents' or teachers' commands, even those may be against their own right or benefit (Lin & Fu, 1990; She, 1988). Under this social atmosphere and the matching up of the social roles of parent, teacher, and the child, physical punishment is rationalized and justified. Therefore, it is not surprising that CPA was prevalent in Taiwan, despite the ban set against in the child protective laws.

The gender difference of CPA

The present result showed that higher percentage of boys than girls had been abused by peers, non-parent adults, and strangers. This finding was similar to that of a retrospective study of Baker et al. (2005), which indicated that men' percentage of physical and stranger violence was higher than women's. Although higher CPA prevalence among males seems to represent an overall trend of the Western samples, our study found that the percentages of being abused by parents between boys and girls were about the same. This finding of parental CPA was dissimilar to the statistics found in the studies of Lee et al. (2006) and Shen (2005), which reported that boys were more vulnerable to CPA than girls in Hong-Kong and in Taipei, respectively. The main difference may come from the divergence of the samples and measured dependent variables. As for the samples, Lee and colleagues sampled participants in the hospital, and thus screened out less severe cases. With regard to dependent variables, Shen compared the frequency of verbal and/or physical abuse experienced by boys and girls, rather than the proportion of those who experienced at least one incidence of CPA as the present study did. In other words, these two studies adopted

different sample and independent variable from the present study. To integrate, boys and girls may be equally vulnerable to experience CPA incidents from parents; when it comes to the severity and frequency, the risk may be higher among boys.

The Victims' Subjective Reactions to CPA

The Concordance Rates of Criterion A1 and Criterion A2/Perceived Threat of Life

To examine the subjective reactions to CPA, criterion A2 and the perceived threat of life/injury were investigated among the students experiencing CPA The concordance rate of criterion A1 and criterion A2 was 88.6%, which seemed to be 10% higher than the statistic, 78.1%, reported by Breslau and Kessler (2001). Nonetheless, considering the sample characteristics; the participants in the current study were students who rated CPA as their most stressful life event, while those in Breslau and Kessler's study were adults, who reported their CPA experience retrospectively. Therefore, the real discrepancy may be smaller than the number exhibited.

On the other hand, much less than the criterion A2, the concordance rate of criterion A1 and the perceived threat of life/injury was 66.5%. Very few studies had examined the concordance of objective and subjective rating of threat. One of the few was Briere and Elliott's (2000) investigation among victims of nature disasters, such as earthquakes and floods. The concordance rate found in our study appears to be pretty close to Briere and Elliott's data (64.0%).

Although the direct cross-cultural comparison of perceived threat concordance rate was not available, some hypothesis could be made with current information. It

had been proofed that victims of nature disaster were in relatively less proportion to experience serious emotional distress than CPA victims (Breslau & Kessler, 2001; Rasmussen, 2007). Accordingly, the natural disaster victims may also in relative less proportion to experience perceived threat of life than CPA victims, since the perceived threat of life is positively related to emotional distress (Brunet et al., 2001). Therefore, we hypothesize that the similarity in the proportion of feeling threat between the Taiwanese CPA victims and the Western nature disaster victims may imply the possibility that the Taiwanese students experience CPA with less perceived threat than the Westerns. This argument could be supported by the study of Hong and Hong (1991), in which Chinese children were found to judge parental disciplines and physical force less harsh than the Latinos and Whites do. To sum up, compared to the Westerns, when encountering CPA, similar percentage of Taiwanese students experienced emotional stressfulness, but probably fewer of them perceived the treatments as life threat.

Correlates of Concordance Rates of Criterion A1 and Criterion A2/ Perceived Threat of Life

The developmental stage and time elapsed

With regard to the factor of developmental stage, the present study found that the probability of both A2 and perceived threat were higher among children than adolescents. This finding supported Howe's notion (2005) that younger victims were more helpless, fearful, and actually more life threatened than the older ones. As for the factor of time elapsed, we found that CPA incidents meeting criterion A2 were with shorter time elapsed than those not. This finding may be because people tend to regard recent events more emotionally arousing. However, the same trend of the time elapsed was not found between CPA incidents with and without perceived threat. This

discrepancy might be because the perceived threat was rated with relatively more objective reference than criterion A2. As a result, it might stay unmoved with time.

The gender

There existed no gender difference of the prevalence of criterion A2 and perceived threat in the present study. About the same proportion of male and female participants rated CPA as their most stressful life event, and also the same proportion of them experienced it with criterion A2 distress. This finding is quite different from that in Breslau and Kessler's (2001), in which they invited 18-45 year-old adults to recall their lifetime trauma, and showed that after being badly beaten by someone, females were in greater percentage (78.1%) to experience intense fear, helplessness, or horror than males (55.8%). The reasons for such a discrepancy are hard to affirm. Two diversities of method between studies could be part of the source. First, as a retrospective study, adult male participants might tend to recall and perceive their childhood trauma less frightening than females in Breslau and Kessler's study. Second, the participants enrolled in the current study were those rated CPA as the most stressful life events. This sample characteristic might be different from Breslau and Kessler's.

The CPA frequency

Apropos of the CPA frequency, we hypothesized that perpetrators who less frequently assault children were believed to have better problem solving strategies and emotional control ability than those who frequently do. The former may attack children out of an accidental loss of control, while the latter may be used to beating children as a way to release their anger, and even worse, a small portion of them may do it for excitement seeking. Therefore, various CPAs with different frequencies may

be incompatible in nature. The more frequently happened incidents may imply greater severity than the rarely happened ones.

However, the current study just partly supported the above hypothesis. We found that, first of all, the proportions of meeting criterion A2 were not significantly discrepant among various CPAs of different frequencies. Frequently-happened and occasionally-happened CPA incidents only showed slightly higher than the rarely-happened ones. Second, consistent with the hypothesis, the proportion of perceiving threat among occasionally-happened CPA was significantly higher than that of the rarely-happened, whereas the proportion of the frequently-happened CPA was unexpectedly lower than the occasionally-happened ones. The first disagreement may be because victims always feel frightened under CPA above certain severity, no matter the relatively small discrepancy between incidents. The second disagreement may be because the frequent traumatized victims are more able to anticipate the outcome damage on the basis of previous experiences. In other words, although they were badly beaten and feeling scared in the moment, they don't expect this harm would threat their life or physical integrity.

The Prevalence of CPA-related PTSD

Since many researchers have pointed out the essential importance of probing each PTSD criterion and partial PTSD diagnosis among children and adolescents (Giaconia, et al., 1995; Pfefferbaum, 1997), the current study investigate not only the prevalence of full PTSD but also that of the partial PTSD. Result showed that, among the general population, the prevalence of current full and partial CPA-related PTSD

was 1.63% and 2.04%, respectively. The prevalence of PTSD criterion B, C, and D was 5.0%, 2.3%, and 4.5%, respectively. Among the CPA victims, prevalence of full and partial PTSD was 13.56% and 16.95%, respectively. The prevalence of criterion B, C, and D was 41.9%, 19.5%, and 37.3% of, respectively.

In addition to investigating PTSD criteria and diagnosis, the current study also examined the prevalence of each symptom. Of all the PTSD symptoms, the most frequently experienced were irritability or outbursts of anger in criterion D (39.6%), psychological distress in criterion B (28.2%), and hyper-vigilance in criterion D (28.1%). In addition, fear of recurrence was also reported by 29.9% of the CPA victims. This was quite different from the findings in the study of Cuffe et al. (1998), in which the most prevalent symptoms among older adolescents (aged 16 to 22 years) were distressing recollection in criterion B, efforts to avoid activities that facilitate recollections, and efforts to avoid thoughts and feelings in criterion C.

Cultural difference in PTSD prevalence

Compared with previous reports, Taiwanese children were at similar degree of risk to develop full PTSD, but with much lower proportion to suffer from the "sub-clinical" distress. As reviewed in the previous chapter, investigation of lifetime full PTSD among CPA victims was 12.0% and 18.8% in the studies of Giaconia et al. (1995) and Elklit (2002), respectively. Despite some inconsistencies in methods with the previous two studies, our finding did not present great discrepancy. However, when we take partial diagnosis and each diagnostic criterion into account, the discrepancy of prevalence was magnified. Elklit (2002) reported that prevalence of full plus partial PTSD in Denmark was around 53.2%, whereas the present study reported only 30.5% in Taiwan. Giaconia et al. (1995) reported 72.0%, 28.0%, and 56.0% of prevalence for criterion B, C, and D, respectively, whereas the present study

reported much less percentage. To conclude, after CPA, similar proportion of young victims in the Eastern and Western societies develop full PTSD. Nevertheless, probing into the sub-clinical conditions, Eastern children may be at less risk to have serious psychological disturbance than the Western ones.

The lower prevalence of CPA-related sub-clinical PTSD symptoms in Taiwan may relate to people's perspective about CPA. Influenced by the traditional Chinese cultural value system, physical punishment to a child is common. What was regarded as trauma or abuse in the West societies may be regarded as merely normal discipline in Taiwan. Accordingly, by the current study's CPA definition, which is clarified mainly by the injury severity, many of the included "CPA" cases may actually be regarded as normal punishment, rather than abuse, by both of the victims and their perpetrators. Thus, CPA cases in the current study may differ from Western CPA in nature and therefore result in less psychological harm. This argument is especially true for the parental CPA cases. We will discuss the impact of parental perpetrators on PTSD and its relationship with lower PTSD prevalence further in the next section.

Gender difference in PTSD prevalence

Most studies (Elklit, 2002; Giaconia, 1995) reported that after almost every kind of trauma exposure, females were at higher risk to develop PTSD. In the present study, among the general population, due to the higher rate of CPA for boys, we also found males were in greater proportion to develop full or partial PTSD. However, when it comes to the investigation among CPA victims, different from the previous researches, gender difference was not consistently found.

This disagreement may relate to the dissimilarity in the findings of gender presentation of meeting criterion A2. Breslau and Kessler (2001) stated that females' greater risk in PTSD was partly due to their higher probability of experiencing

criterion A2 distress than males. Congruent with their logic, the current study found equal proportion of meeting criterion A2 between genders, and further revealed equality in PTSD prevalence for boys and girls. This information may serve as a supporting evidence of Breslau and Kessler's argument. In other words, the current findings uphold that the part of the gender difference in PTSD prevalence is in fact a product of males and females' different proportion in meeting criterion A2. As boys and girls experience similar degree of subjective distress in Taiwan, they were therefore exposed in the same degree of risk to develop PTSD.

The Risk Factors of CPA-related PTSD

The current study conducted two sets of hierarchical regression to examine the risk factors of PTSD. In the first set of regression, perceived threat and CPA frequency were found to be the main predictors for PTSD diagnosis as well as the three criteria B, C, and D. In the second set, perceived threat, CPA by non-parent adults, and criterion A2 were the main predictors for symptom severity. Therefore, each PTSD risk factor will be discussed in the following.

Before going on, we should notice that, as illustrated above, the predictors for PTSD diagnosis and criteria satisfaction were inconsistent with those for symptom severity. This diversity implied that characteristics of children diagnosed with PTSD might be different from those with severe post-trauma psychological distress. The finding supported Pfefferbaum's (1997) notion that children suffering from severe trauma-related symptoms might not be diagnosed with PTSD based on the current criteria of DSM system. Therefore, researches should investigate both the categorical and quantitative presentation of post-trauma reactions.

The frequency of CPA

The current study showed that CPA frequency was one major predictor for PTSD symptom cluster fulfillment and severity. Prevalence and severity of PTSD was higher following frequently-happened rather than rarely-happened CPA. This result echoed with the findings of previous studies, suggesting PTSD-related symptoms are more likely to appear in cases of chronic abuse (Wolfe, Sas, & Wekerle, 1994). Perhaps, similar to the notion described earlier, the more frequently happened incidents may be due to the possibility of poorer emotional control of the perpetrators that bursts out frequently by nature, and therefore leads to more damages on young victims. PTSD could be one of its consequences, and the rest deserve future research attention.

The Criterion A2 and the Perceived Threat

The current study found that the perceived threat was the strongest predictor among all of the investigated risk factors to predict PTSD diagnosis and symptom severity. Although criterion A2 was proofed to be a major predictor of PTSD (Breslau & Kessler, 2001), the current study found that the predictive power of the perceived threat was much stronger than it. This finding may support the lower post-traumatic distress prevalence in Taiwan by considering it together with the result of the concordance rate investigation. The current study found that similar proportion of Taiwanese children met criterion A2 after CPA, but not as many of them perceived CPA as life threatening. As stated, because perceived threat was more essential than criterion A2 to predict posttraumatic distress, the subjective CPA reactions of Taiwanese children contributed to their less prevalence of PTSD symptoms.

The Relation with the Perpetrators

The current study found that abused experience of non-parent adults as perpetrators more strongly predicted later psychological distress as compared to that of parents as perpetrators. This finding was contrary to the existing findings, in that more severe damages would be produced when the injuries were inflicted by whom one looks for love and protection from (Howe, 2005). Several reasons could be responsible for this diversity. For example, parental and non-parental CPA may be different in severity, and perpetrators' motivations. In addition, our finding may also be a unique result from the influence of Chinese culture.

Parental CPA vs. Strict Discipline

In an article about the distress of interpersonal conflicts in Chinese society, Yeo (1991) divided the interpersonal relationship into two systems: the intra-family system, which referred to the parent-child relationship, and the extra-family system, namely the relationship outside of family, such as that with teachers or friends. According to Yeo, the parent-child relationship is composed of three factors: obligation and attachment, enduring and extensive parental control, and the unconditional obedience of children. The first is universal, while the later two are particular in Chinese society. More specifically, Chinese parents are responsible to monitoring and controlling children's conformability to social rules and expectations. On the other hand, children are obligated to obey parents' discipline even after grownup. In other words, different from the Western culture which stresses individuality and responsibility of the children, loving and caring are bound with strict control in Chinese parent-child relationship. Under this kind of cultural influence, Taiwanese children may tend to consider physical discipline as parents' expression of caring and expectation,

especially when they do something bad.

Based on the above, the attribution of parental physical discipline may protect Taiwanese children from CPA-related PTSD or other psychological distress. Horowitz (1986) suggested that the core for development of PTSD and other post-trauma psychological problems was the shock and shatter that trauma caused to people's belief system about safety and predictability for the future. As parental physical discipline may be somewhat accepted as a form of behavioral feedback in Taiwan, children may attribute physical punishment to their inadequate behaviors. This conceptualization that links misconducts and consequent harsh physical treatment may lead Taiwanese young victims to regain the sense of control and thus be less vulnerable to PTSD after parental CPA. This inference may be parallel to the notion of Foa, Zinbarg, and Rothbaum (1992). They stated that not only emotional distress and perceived threat of life, but also feelings of uncontrollability and unpredictability constitute "trauma." These components together manifest the importance of experiential and cultural factors that mediate emotional reactions to a stressful life event in general (Friedman & Marsella, 1996), and traumatic events in specific.

In addition, Horowitz (1986) suggested the difficulty in accommodating traumatic experience into the existing schema to be the other core contributor for PTSD. Influenced by the value of "Ren" (forbearance), which is a strategy to cope with interpersonal conflict in the Chinese society, Taiwanese believe that suffering of the mind and body, especially that given by the parents, is a kind of endurance, aiming to facilitate individuals to achieve higher goals or to take greater responsibility in the future (Huang, Cheng, & Hwang, 2008). Through this process, the abused children give meaning to physical discipline, and are thus able to accept, rather than suppress, it. In sum, under the influence of these Chinese social values, Taiwanese children are more able to accept and gain the sense of control toward CPA, and as a result, may be

more resilient against CPA-related psychological distress including PTSD.

Non-parent adults as the perpetrators

On the other hand, Yeo (1991) delineated the extra-family system with four factors: sharing and reciprocity, adherence to social roles, harmony and concession, as well as the suppression or concealment of negative emotion. Children are supposed to observe these rules while interacting with the extra-family figures. According to Yeo, when encountering conflicts, children are expected to suppress and sacrifice in order to meet the social expectations and to maintain interpersonal harmony. Compared with the parent-child relation stated above, the coping strategies of extra-family conflict seem to be consisted of more suppression and less attribution process.

Moreover, because failing to maintain social harmony was not shared by others, worries about criticisms and judgments as well as feelings of frustration and guilt arise, no matter who was the major cause for the break. In addition, because assault of non-parent adults was not combined with loving and caring, the non-parental physical assaults were perceived as more threatening and hostile than the parental treatments. As perceived threat was found to be an essential risk factor of PTSD, CPA by the non-parent adults may therefore strongly predict posttraumatic symptoms.

To sum up, CPA frequency, perceived threat, non-parent adults as perpetrators, and criterion A2 were the major predictors of PTSD among Taiwanese children. As the discussion elaborated above, we may find these risk factors imply some implicit association with certain social values uniquely dispeaded in the Chinese culture. Under this value system, CPA may be judged to be different from that under other cultures. Similarly, under the Chinese culture, some kinds of CPA are subjectively regarded as “traumatic experiences,” while others are socially regarded as “ordinary punishments” that result in less harm. This may echo the notion that cultural

differences are tied to variations in social construction of reality, the perception of what constitutes a "trauma," and the social response to it (Friedman & Marsella, 1996). The subjective experience, under the influence of social and cultural context, may affect one's appraisal of a stressful life event as traumatic or merely difficult. Therefore, as demonstrated in the current study, those factors considered as risk for PTSD development in Western societies may not play the same role in Taiwan.

Chapter 5 Contributions, Limitations, and Future Directions

The Contributions

CPA is one of the serious traumatic events during childhood. In Taiwan and other Eastern Asian countries, information about CPA prevalence is limited to governmental or institutional statistics, which usually underestimate the actual occurrence. The current study provides community-based epidemiological information of CPA among Taiwanese children and adolescents. We considered the influence of Chinese culture on the higher CPA prevalence in Taiwan. Moreover, we also included different kinds of perpetrators and reported the prevalence of CPA by parents, non-parent adults, peers, and strangers.

Further, we estimated the prevalence of CPA-related PTSD. This is the first data targeting CPA and consequent PTSD in Taiwan. Specifically, the present study examined the prevalence of full PTSD, partial PTSD, as well as each diagnostic criterion. We found the proportion of partial PTSD and each diagnostic criterion was significantly lower in Taiwan. The protective role of traditional Chinese value about parent-child relationship and conflict coping strategy were discussed.

As for the research design, the current study investigated CPA independently from other forms of maltreatment. This was different from most Western studies, which lump different forms of maltreatment, such as child neglect, child sexual abuse, together to examine the association with PTSD. As a result, the confusion of maltreatment in different nature was reduced, and information specific to CPA-related psychological reactions can be singled out. Moreover, in the majority of previous

researches, once the objective experience of certain serious events existed, the subjective perception of threat and criterion A2 satisfaction used to be presumed. The current study examined criterion A2 and the perceived threat of life separately. This dedication not only prevented the overestimate of PTSD prevalence, but also enabled our understanding of victims' subjective experience of CPA.

In addition to the above epidemiological information, we also examined the probable predictors of CPA-related PTSD. Result showed that, first, CPA frequency was one of the major predictor of PTSD among Taiwanese children. Second, perceived threat was more predictive than criterion A2. Moreover, CPA by non-parent adults strongly predicted PTSD. The resilient roles of traditional parent-child relationship and "Ren" in perceiving, coping, and attributing parental CPA were highlighted. To sum up, the present study probed into the subjective and cultural perspective of CPA, and examined its psychopathological consequence under the Chinese cultural context. This dedication emphasizes the importance of cultural influence on posttraumatic reactions, and improves our understanding of CPA reactions in Taiwan. The results also point out the urgence of more cross-cultural studies on children's psychopathology.

The Limitations

The definition of CPA

Child physical discipline is common in Taiwan. In order to exclude normal child discipline, the current study defined CPA under the restriction of injury severity. This definition complicated the direct comparison of CPA prevalence between the current

finding and those in other Asian and Western societies, which mostly define CPA by actions only. On the other hand, in order to examine the prevalence of non-parental CPA and its role in CPA-related PTSD, we did not set parental perpetrator as one of the criteria in our CPA definition. Although most Western community-based studies share the same opinion with us, most Asian studies still limit in the pure investigation of parental CPA. Comparing CPA prevalence with other Asian studies was further difficult to make.

The sample

The current study had some limitations. Two were about the research sample. First, the sample was not randomly recruited. This study used convenient samples from limited schools in limited districts of Taipei City and Taipei County. We did not select schools across districts with different probability of reported CPA case based on the existing governmental statistics. Moreover, students from other administrative divisions in Taiwan were not selected. Therefore, this study should be taken as an explorative research. Generalized of the current finding to other areas in Taipei or Taiwan should be done very conservatively. Larger and national wised survey is still needed to confirm the argument and hypothesis made in the current study.

Second, only the participants who rated CPA as their most-stressful life event (35.3% among those experienced CPA) were asked about PTSD symptoms. The data from those victims, who ever experienced CPA, but didn't identify it as their most-stressful life event, was ignored. Therefore, the calculation of PTSD prevalence in the total sample might be slightly underestimated. Moreover, because these victims, who singled CPA as their most-stressful life event, might experience relatively more severe CPA than those did not, generalization of the current finding to the general population should be consider cautiously.

The questionnaire design

There were two shortages about the questionnaire design. First, when inquiring the time-related questions, we asked the participants to answer according to the most stressful incident, if there were more than one. By this design, the information of how long ago and in what age did CPA initially begin was not obtained. It was suggested that the time elapsed and traumatized age were important factors related to PTSD symptomatology (Drake, Bush, & van Gorp, 2001; Rojas & Pappagallo, 2004). The lack of time-related questions could be the reason for not finding time elapsed to predict PTSD diagnosis and symptom severity in the current study.

Second, although all of the perpetrators had been inquired, we did not ask participants to specify the one who conducted that most stressful incident. Therefore, when a participant had ever been abused by more than one perpetrator, and experienced CPA for more than one time, we had no way to know the specific one. Because the symptom-related questions were answered on the basis of the most stressful incident, due to the limitation of the questionnaire, we could only examine the correlation of PTSD and whether the individual had the experience of CPA by certain perpetrator.

The Future Directions

As stated in the previous chapter, what was regarded as trauma or abuse in the West may be regarded as merely normal discipline in Taiwan. Cawson et al. (2000) suggested that there was no fixed and permanent definition of child physical abuse. Therefore, researches are needed to dig into the sophisticated perspectives about child

physical discipline in Taiwan and culture-suitable definition of CPA. For example, Foa et al. (1992) suggested that controllability and predictability were important resilient factors of PTSD. We also proposed that Taiwanese children and adolescents are less vulnerable because of their higher sense of control over later punishments. To test this hypothesis, future studies may probe into children's appraisals, coping strategies, as well as the sense of control and predictability for CPA, and examine their association with later psychological reactions. These works will better our understanding of CPA and its consequences in Taiwan and other Asian societies.

On the other hand, children and adolescents' posttraumatic reactions are different from those of adults. In addition to the partial PTSD diagnosis examined in the current study, other psychological symptoms and personality factors are also important. Yule (2001) pointed out that separation anxiety and cognitive impairment, such as difficulties in concentration and memory, are frequent following trauma. Some of the traumatized children and adolescents suffered from depressed and anxious mood. A significant number were even diagnosed with depression, generalized anxiety, or pathological grief (Yule, 2001). Psychosomatic complaints, such as headache and stomachache, were also common among traumatized children (Winje & Ulvik, 1998). As for the reactions specific to child abuse, Herman (1992) also proposed a new syndrome for children and adolescents experiencing prolonged interpersonal violence, i.e., the complex PTSD, which emphasizes excessive somatization, dissociation, self-injury or suicide, re-victimization, pathological changes in affect, relationships and identity. Moreover, Pritchard (2004) suggested that the children who believe they deserve physical punishment develop poorer self-esteem and more vulnerable to depression. These problems are also worthy of examination, especially in Chinese societies where the construct of self is so different from that of the Westerns (Yang, 1991).

Moreover, the current study examined victims' gender, age, subjective reactions, and several event related factors in predicting PTSD. However, only 12.6% to 24.0% of variance was explained. Many other factors are in need of further investigations. As for the victims' characteristics, personality, intelligence, psychiatric history, biological factors, such as the cortisol level and genetic component, have been pointed out as main correlates of PTSD development (Rojas & Pappagallo, 2004; Silve & Kessler, 2004). In addition, other factors, such as social support before and after the trauma, previous traumatic experience, and dissociation during the trauma all play important roles for PTSD and worthy examination in later studies (Silve & Kessler, 2004).

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Appendix A

The Revised Chinese Version of UCLA PTSD Reaction Index for DSM-IV, Children and Adolescent version

生活事件問卷

第一部分

作答說明：以下所列舉的是一些人們可能會經歷到的**非常可怕、危險或是暴力**的事件。有些人可能有過這樣的經驗，有些人可能沒有。請您仔細地閱讀下面每一步的做法與說明，並選出最符合您真實經驗或感受的答案。您所填寫的內容，我們會絕對保密，請放心填寫。

1. **你曾經歷過天然災害（水災、颱風、地震等）？**

□是　□否	
如果是，共發生幾次？	□1次　□2次　□3次　□4次　□5次　□ 超過5次

2. **你曾發生過其他任何類型的意外，且你或他人在意外中受到重傷？**
（如飛機失事；溺水或幾乎快溺水；電子或機械意外；爆炸、家裡失火、或 化學物質外漏；過度暴露在輻射或有毒物質）

□是　□否	
如果是，共發生幾次？	□1次　□2次　□3次　□4次　□5次　□ 超過5次

3. 成長過程中*你自己*曾被嚴重體罰或毆打，嚴重到造成瘀青、燒傷、傷口、或骨頭斷裂 (不管原因是什麼)？

□是 □否	
如果是，共發生幾次？	□1 次 □2 次 □3 次 □4 次 □5 次 □ 超過 5 次

如果曾發生過，*主要* 體罰或毆打你的人是誰：

陌生人？……	□是	□否
年紀相似的認識的人？……	□是	□否
年紀大超過你五歲的認識的人？……	□是	□否
父親, 或繼父, 或母親的同居人？……	□是	□否
母親, 或繼母, 或父親的同居人？……	□是	□否

4. 在成長過程中你曾 *親眼看到* 或 *親耳聽見* (而非親身經歷) 家中某一成員被另一成員嚴重體罰或毆打，嚴重到造成瘀青、燒傷、傷口、或骨頭斷裂 (不管原因是什麼)？

□是 □否	
如果是，共發生幾次？	□1 次 □2 次 □3 次 □4 次 □5 次 □ 超過 5 次

如果曾發生過，*主要* 體罰或毆打他人的是你的誰：

父親, 繼父, 或母親的同居人？……	□是	□否
母親, 繼母, 或父親的同居人？……	□是	□否
哥哥, 或姐姐？……	□是	□否
其他親屬？……	□是	□否

5. 在成長過程中是否有過 *任何人 毛手毛腳地* 碰觸、撫摸你的身體，讓你覺得不舒服?

□是 □否	
如果是，共發生幾次？	□1 次 □2 次 □3 次 □4 次 □5 次 □ 超過 5 次

如果曾發生過，這個人是誰：

陌生人？……	□是	□否
年紀相似的認識的人？……	□是	□否
年紀大超過你五歲的認識的人 ？……	□是	□否
(繼)父, 或(繼)母, 或父母的同居人？……	□是	□否

	是	否
6. 你是否曾身處正在發生戰爭的地方。	☐	☐
7. 你是否曾在居住的地區看見有人被打傷、槍傷或殺害。	☐	☐
8. 你是否曾在居住的地區看見屍體（不包括在葬禮的情況下）。	☐	☐
9. 你是否曾得知你所關心的人因暴力致死或嚴重傷害。	☐	☐
10. 你是否曾因嚴重生病或受傷而在醫院接受令人痛苦與害怕的醫療處理。	☐	☐

◙ **如果你在 1~10 題中沒有任何一題回答「是」，或者你還曾經經歷過比 1~10 題中更可怕、危險或暴力的事情，請繼續回答 11 題。**

◙ **如果你在 1~10 題中有任何一題回答「是」，且沒有經歷過比那一題或那幾題更可怕、危險或暴力的事情，請稍等其他同學，再一起繼續往下一頁作答。**

11. 請你在此欄填寫一個，你記憶中感到最可怕或危險的事件：

_____

_____

1. 請從第一部分回答「**是**」的幾題中(包括第 11 題)，

★ 選出***現在最困擾你*** 的一題：第_____題。
(如果第一部份你只有一題回答「**是**」，則選擇那一題填在上面的空格。)

2. 請問：上題所選擇的事件是什麼時候發生的？_____(天 / 禮拜 / 月 / 年前)
(如果不只發生一次，請以***現在最困擾你***，***或印象最深的一次***來回答)？

3. 請問：此部分第 1 題所選擇的事件發生時，你所在的地方是？_____
請填寫一個較精確的範圍 例如："學校的教室"（而不只是說"學校"），
或 "家裡的客廳"（而不只是說"家裡"）。

如果你忘記或不知道那個地方是哪裡，請問你能清楚回憶出當時的場景嗎？
☐ 能清楚回憶場景 ☐ 不能清楚回憶場景

第二部分

作答說明：針對你在第二部分第 1 題 (打★題) 所選出的事件，在經歷該事件的**當時**或**隨後**是否出現符合下列語句所描述的感覺？ 請以「**是**」或「**否**」回答。

	是	否
1. 那時你害怕自己可能會死掉嗎？	☐	☐
2. 那時你害怕自己將會受到嚴重傷害嗎？	☐	☐
3. 那時你有受到嚴重受傷嗎？	☐	☐
4. 那時你害怕有其他人可能會死去嗎？	☐	☐
5. 那時你害怕有其他人可能會受到嚴重傷害嗎？	☐	☐
6. 那時有其他人受到嚴重傷害嗎？	☐	☐
7. 那時有人死亡嗎？	☐	☐

	是	否
8. 那時你感到非常害怕，就像這件事是從小到大最恐怖的經驗之一？	☐	☐
9. 那時你覺得無法停止正在發生的狀況或需要其他人的幫助？	☐	☐
10. 那時你覺得目睹的事件令人厭惡(非常討厭)或噁心？	☐	☐
11. 那時你覺得坐立不安或表現出心煩的樣子？	☐	☐
12. 那時你覺得頭腦非常混亂？	☐	☐
13. 那時你覺得發生的事情好像有些不真實(像在作夢)，像是電影的情節而不是真實的經驗？	☐	☐

第三部分

作答說明：我們在遇到一些很不好的事情之後，有時會出現以下的情形。請回想你在第二部分第 1 題 (打★題) 所寫下那件不好的事情。然後，仔細的閱讀下列的句子，想一想在***過去一個月***以來，你是不是有以下的情形出現？如果有，請勾選**符合此情形發生頻率的數字(0,1,2,3,4)**。

「0 **從未如此**」表示：過去一個月以來，一次也沒有這樣的情形發生。

「1 **很少如此**」表示：過去一個月以來，每兩、三個星期發生一次。

「2 **有時候如此**」表示：過去一個月以來，每星期都發生一、兩次。

「3 **很多時間如此**」表示：過去一個月以來，每星期都發生兩、三次。

「4 **大部分時間如此**」表示：過去一個月以來，幾乎每天都會發生。

過去一個月以來，我……	從未如此 0	很少如此 1	有時候如此 2	很多時間如此 3	大部份時間如此 4
1. 我會小心留意危險或自己感到害怕的事物。	□	□	□	□	□
2. 當某件事物使我聯想到當時的情況，我會非常生氣、害怕或悲傷。	□	□	□	□	□
3. 和當時情況有關的那些讓我難過的想法、影像或聲音，會在我不想要的時候跑到我腦中。	□	□	□	□	□
4. 我感到不爽（不滿）、生氣或發怒。	□	□	□	□	□
5. 我作與那件事有關的夢或其他惡夢。	□	□	□	□	□
6. 我覺得自己好像回到事情發生的當時，有再度經歷的感覺。	□	□	□	□	□
7. 我想一個人獨處而不與朋友一起。	□	□	□	□	□
8. 我內心感到孤獨而無法接近他人。	□	□	□	□	□
9. 我試著不去談論、回想或感受那件事。	□	□	□	□	□
10. 我很難感到快樂或愛。	□	□	□	□	□

「0 **從未如此**」表示：過去一個月以來，一次也沒有這樣的情形發生。

「1 **很少如此**」表示：過去一個月以來，每兩、三個星期發生一次。

「2 **有時候如此**」表示：過去一個月以來，每星期都發生一、兩次。

「3 **很多時間如此**」表示：過去一個月以來，每星期都發生兩、三次。

「4 **大部分時間如此**」表示：過去一個月以來，幾乎每天都會發生。

過去一個月以來，我……	從未如此 0	很少如此 1	有時候如此 2	很多時間如此 3	大部份時間如此 4
11. 我很難感到悲傷或生氣。	☐	☐	☐	☐	☐
12. 我容易受到驚嚇，像聽到很大聲的噪音或遇到驚訝的事時的反應一樣。	☐	☐	☐	☐	☐
13. 我很難睡著或容易在夜裡醒來。	☐	☐	☐	☐	☐
14. 我覺得發生那件事，有部份是自己的錯。	☐	☐	☐	☐	☐
15. 我很難記得那件事的重要部份。	☐	☐	☐	☐	☐
16. 我很難專心或集中注意力。	☐	☐	☐	☐	☐
17. 我試著迴避讓我聯想到當時的情況的人、地方或事物。	☐	☐	☐	☐	☐
18. 當某件事物使我聯想到當時的情況時，我會有強烈的生理反應，如心跳加快、頭痛、或胃痛。	☐	☐	☐	☐	☐
19. 我認爲我不會活得很久。	☐	☐	☐	☐	☐
20. 我與他人有爭吵與肢體衝突。	☐	☐	☐	☐	☐
21. 我對未來感到悲觀或不積極。	☐	☐	☐	☐	☐
22. 我害怕不好的事又將再發生。	☐	☐	☐	☐	☐