MENTAL HEALTH CONSEQUENCES OF CHILDHOOD MALTREATMENT AMONG NEPALI ADOLESCENTS LIVING IN INSTITUTIONS AND COMMUNITIES

A Thesis
Submitted to the Faculty of Humanities and Social Sciences of Tribhuvan University in Fulfillment of the Requirements for the Degree of
DOCTOR OF PHILOSOPHY
in
PSYCHOLOGY

By
SANDESH DHAKAL
Roll No.: 10/2071
T.U. Regd. No.: 48927-95

April 2024

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LETTER OF RECOMMENDATION

We certify that Mr. Sandesh Dhakal submitted this dissertation entitled "MENTAL HEALTH CONSEQUENCES OF CHILDHOOD MALTREATMENT AMONG NEPALI ADOLESCENTS LIVING IN INSTITUTIONS AND COMMUNITIES" under our supervision and guidance. We hereby recommend this dissertation for final examinations to the research committee of the faculty of Humanities and Social Sciences, Tribhuvan University in fulfillment of the requirements for the Degree of Doctor of Philosophy in Psychology.

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April 2024

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APPROVAL LETTER

This dissertation entitled **"Mental Health Consequences of Childhood Maltreatment Among Nepali Adolescents Living in Institutions and Communities."** was submitted by **Mr. Sandesh Dhakal** for final examination to the Research Committee of the Faculty of Humanities and Social Sciences, Tribhuvan University, in fulfillment of the requirements for the **Degree of Doctor of Philosophy in Psychology.** I hereby certify that the Research Committee of the Faculty has found this dissertation satisfactory in scope and quality and has therefore been accepted for the degree.

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DECLARATION

I hereby declare that this PhD dissertation entitled "**Mental Health Consequences Of Childhood Maltreatment Among Nepali Adolescents Living In Institutions And Communities**" submitted by me to the Office of the Dean, Faculty of Humanities and Social Sciences, Tribhuvan University, Nepal is an entirely original work prepared under the supervision of Prof. Dr. Shanta Niraula and co-supervisor Prof. Dr. Jennifer Lau. While writing this dissertation, I have duly acknowledged all ideas and information borrowed from different sources. The results presented in this dissertation have never been presented or submitted anywhere else for the award of any degree or other purposes. No part of this dissertation has ever been published in the form or part of any book. I am solely responsible if any evidence is found against my declaration.

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ABSTRACT

Childhood maltreatment is a global problem with the potential for multitudes of detrimental ramifications. It is highly prevalent in low and middle-income countries compared to high-income countries. One of the well-established harmful consequences of childhood maltreatment is mental health problems. The present study aimed to examine the prevalence of childhood maltreatment and mental health difficulties among adolescents in the institutions and community. It also attempted to explore the link between the experience of specific childhood maltreatment with mental health. Based on a cross-sectional design, the present study utilized the Juvenile Victimization Questionnaire, the Strengths and Difficulties Questionnaire and the Inventory for Callous-unemotional Traits for data collection. The results showed a strong association between residence and each category of childhood maltreatment. Institutionalized adolescents were more likely than community adolescents to witness domestic violence, but more community adolescents suffered all remaining types of maltreatment. The regression analysis indicated that victimization by peers or siblings significantly predicted six aspects of mental health difficulties, whereas sexual abuse predicted five, psychological/emotional abuse predicted three, and exposure to domestic violence predicted two. Physical abuse or exposure to community violence was not linked to any aspects of mental health problems. Psychological/emotional, sexual, and peer or sibling victimization significantly predicted total mental health difficulties. A statistically significant link between adolescents' residency and callousness, uncaring, and total callous-unemotional features was established. Adolescents in institutions were more likely to express high callousness and callous-unemotional total, whereas more adolescents in the community reported an uncaring attitude. Sexual abuse negatively predicted

callousness and positively predicted uncaring. Sexual abuse and witnessing domestic violence significantly predicted overall callous-unemotional traits. No one of the maltreatment categories significantly predicted the unemotional dimension of the callous-unemotional trait. A considerable prevalence of internalizing problems among institutionalized, younger adolescents and girls was found, whereas total difficulties were more prevalent among institutionalized boys and older adolescents. Different childhood maltreatment types were substantially related to specific mental health problems and callous-unemotional traits. The findings underscore a need for action to decrease incidents of such abuse in the future and proper interventions for persons enduring the mental health consequences of these experiences. The findings of the present study indicate a need for prompt action to address the mental health conditions of institutionalized and community adolescents and a long-term plan of action to determine the risk and protective variables against adolescents' mental health problems.

Keywords: childhood maltreatment, institutionalization, mental health difficulties, callous-unemotional traits, adolescents

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LIST OF ACRONYMS AND ABBREVIATIONS

ACE	Adverse Childhood Experience
ADHD	Attention Deficit Hyperactivity Disorder
BEIP	Bucharest Early Intervention Project
CBCL	Child Behavior Check List
CCH	Child Care Home
CCWB	Central Child Welfare Board
CD	Conduct Disorder
CFS	Children and Family Services
CI	Confidence Interval
CM	Childhood Maltreatment
CSA	Child Sexual Abuse
CU	Callous-Unemotional
CUT	Callous-Unemotional Traits
DSM	Diagnostic and Statistical Manual
GAD	Generalized Anxiety Disorder
GBD	Global Burden of Disease
ICU	Inventory of Callous-unemotional Traits
IPV	Intimate Partner Violence
JASP	Jeffreys' Amazing Statistics Program
JVQ	Juvenile Victimization Questionnaire
LMIC	Lower-and Middle-Income Countries
MDD	Major Depressive Disorder
MZ	Monozygotic
NatSCEV	National Survey of Children's Exposure to Violence

NAYS	Nepal Adolescents and Youth Survey
NESARC	The National Epidemiological Survey on Alcohol and Related Conditions
NGO	Non-Governmental Organizations
NMICS	Nepal Multiple Indicator Cluster Survey
NSCAW	Survey of Child and Adolescent Well-Being
ODD	Oppositional Defiant Disorder
PTSD	Post-Traumatic Stress Disorder
SCEV	National Survey of Children's Exposure to Violence
SDQ	Strengths and Difficulties Questionnaires
SSV	Screener Sum Version
TDS	Total Difficulty Score
TVS	Total Victimization Score
UK	United Kingdom
UN WOMEN	The United Nations Entity for Gender Equality and the Empowerment of Women
USA	United States of America
WHO	World Health Organization
Y-PSC	Youth-Pediatrics Checklist
YSR	Youth Self-Report

CHAPTER I

INTRODUCTION

1.1 Background

Adolescence is a stage of rapid changes in all spheres of life. It is a transitional period marked by various visible and unseen changes, beginning from puberty and ending in legal maturity. Given the abrupt transitions and marked variations in physique, mood, behavior, temperament and preferences, it is considered a stage of instability. Different authorities, professionals and researchers suggest different age ranges for adolescents. Adolescents are defined by the World Health Organization (2019) as anyone between the ages of 10 and 19. Adolescents aged 10-14 are early adolescents (World Health Organization, 2020) and 15 onwards as late adolescents depending upon distinct biological, psychological and social characteristics.

Adolescents are in a state of disequilibrium because of hormonal, psychological and social changes during this time. Developmental psychologists consider it one of the most critical stages in one's life, as many future directions are fixed at this stage. This stage is full of opportunities and threats; many adolescents transit into healthy adulthood, though many lag behind. One of the risk factors associated with the adolescence stage is related to mental health problems. Adolescents are more vulnerable to mental health problems than people from other life stages. Several mental disorders, including depression, anxiety, eating disorders, substance use disorders, and psychosis, typically emerge prior to the age of 24. What makes adolescents more vulnerable to mental health problems? This is an important question because some mental illnesses that begin in adolescence persist into adulthood, causing long-term morbidity and a significant burden on the person's life,

family and society at large. Adolescence comprises nearly 40% of the population in Nepal (United Nations Children Fund, 2018); the prevalence of mental disorders in the 13-17 age group is 11.2% (Jha et al., 2019).

Early life experiences significantly impact a developing child's mental health. Adverse effects of early life experiences may continue from adolescence to adulthood. Among many factors, a healthy family environment is a significant protective factor for a person's mental health (Maglica et al., 2021). An abusive family environment will lead to various mental health difficulties, which may continue later in life if not addressed promptly. But what if a child is deprived of a home environment early in life? Poverty is the ever-attributed cause of suffering (Knifton & Inglis, 2020) and Nepal is one of the poorest countries in the world. Another significant issue in Nepali society is a lack of education or under-education. Many unhealthy practices result from the complex interplay of poverty, lack of education and other religious, cultural and social norms and values.

One such problem prevalent in Nepali society with a high potential for adverse consequences is child maltreatment. Child maltreatment can be defined as the abuse or neglect of children between the ages of 0-18. A child is subjected to physical or emotional abuse, sexual abuse, neglect, carelessness, or commercial or other exploitation that harms or threatens to harm their health, survival, development, or dignity while in a relationship, responsibility, or trust setting. It is a social malpractice with a high potential for adverse effects on a child's mental health. Traditionally, Nepal has not been a child-friendly Nation. Different forms of harsh child disciplining are still practiced in Nepal. Children living with family are not even safe from maltreatment as perpetrators are mostly family members or close relatives (Chan et al., 2011; Choo et al., 2011; Jackson et al., 2016; Rajbanshi, 2012).

Institutional care for children refers to the provision of residential services and support within organized facilities, commonly known as orphanages, child care homes, or children's homes. These institutions are designed to offer a stable and secure environment for children who, for various reasons, cannot live with their biological families. While the intent is to provide care, protection, and access to education, the effectiveness of institutional care has been a subject of debate. On one hand, it can offer a structured routine, access to education, and basic necessities. On the other hand, concerns have been raised about the potential negative impacts on children's emotional and psychological well-being due to the lack of individualized attention, absence of consistent caregiver relationships, and a more regimented environment, leading to a global push for deinstitutionalization and the promotion of family-based alternatives to care for children (Goldman et al., 2020). In an effort to give children a more individualized and loving environment, efforts to enhance institutional care frequently center on creating a family-like atmosphere, stressing the value of skilled and caring caregivers, and looking into alternatives like foster care.

Many Nepali adolescents are forced to live in institutions, away from their homes and family. Such institutions in Nepal are run mainly by NGOs, supported by INGOs, and monitored by governmental agencies. There is no uniformity in the systems within institutions; in most cases, there are caretakers or wardens, cooks and care home administrators, among others, responsible for the welfare of the resident children. The reasons behind being institutionalized are diverse, but institutional life has some shared features. Those institutionalized at an early age are deprived of many fundamental psychosocial needs. The absence of an attachment figure, the harsh discipline of institutional life and the emotionally cold and distant surroundings all endanger the mental health of a developing child. In Nepal, the mental health of

institutionalized adolescents is a little-studied phenomenon. The child's separation from their family at an early age and subsequent move to an institution entails a slew of stressors and may present difficulties for their psychological adjustment (Shechory & Sommerfeld, 2007). Being institutionalized in early life is an adverse experience in itself, with a high potential to initiate mental health problems (Batki, 2018; Maclean, 2003; McCall et al., 2016; Schmid et al., 2008). When coupled with childhood maltreatment and early life institutionalization, they may increase the likelihood of experiencing mental health problems.

On the other hand, community adolescents reside in family homes or community settings, where they receive care and support from parents, guardians, or extended family members. These individuals typically grow up within the familiar dynamics of a family unit, experiencing a more conventional upbringing. They often benefit from the stability and continuity provided by familial relationships, and their experiences may be influenced by the cultural, social and economic dynamics within their communities. Adolescents living with family are at risk of continuously experiencing maltreatment and those living in institutions are likely to face many unpleasant experiences while in the institution.

Studies that have compared the mental health status of institutionalized and community adolescents have found elevated mental health problems among institutionalized adolescents (Bos et al., 2011; Ford et al., 2007; Humphreys et al., 2015; Nsabimana et al., 2019). A review of prior studies in Nepal revealed that very few empirical studies report on the mental health status of institutionalized adolescents. Ojha et al. (2013) found that 28.57% of institutionalized adolescents had mental health difficulties and 23.01 % had diagnosable mental health problems, which is higher than the rate found among community adolescents. Comparisons in the

extent of childhood maltreatment experienced by institutionalized and community adolescents have received less attention globally. Such studies are yet to be done in the Nepali context and the link between maltreatment and mental health is still unclear in Nepal.

Previous studies have consistently shown that childhood maltreatment has many adverse consequences, which can be physical (Leeb et al., 2011), social (Smetana & Kelly, 2010), psychological (Alaraudanjoki et al., 2001; Reiff, 2003; Spinazzola et al., 2014; Stuewig & McCloskey, 2005) and even economic (Egle et al., 2016; Jackson & Deye, 2015). The direct impact of maltreatment is visible and is likely to subside gradually. However, the more profound impact it exerts on the child's psyche becomes more severe as the child grows. Childhood maltreatment negatively impacts brain development, which may result in different behavioral problems in adolescence and adulthood. The immediate emotional effects of abuse and neglect, such as loneliness, fear and a lack of trust, can have long-term consequences, including adverse behavioral and mental health outcomes. In addition to the immediate physical harm that maltreatment can cause, a child's reactions to abuse or neglect can have long-term effects. Childhood maltreatment is associated with costs to society as a whole and long-term physical, psychological and behavioral effects. Childhood maltreatment is one of the major causes of mental health problems at this age (Green et al., 2010; Haahr-Pedersen et al., 2020; Kessler et al., 2010; Nelson et al., 2019; Varese et al., 2012). However, adolescents' mental health problems need extensive exploration in multi-dimensional and multi-directional ways.

Previous studies report that childhood maltreatment is highly prevalent in Nepal; it has a solid potential to influence an adolescent’s mental health status negatively. Nepali adolescents seem at risk of mental health difficulties, which, if not

addressed promptly, may develop into mental disorders and continue to later life. The occurrence of a range of psychiatric disorders, such as mood disorders, is significantly more probable in children who have experienced childhood maltreatment (Kessler et al., 2011; Keyes et al., 2021), anxiety disorders (Casline et al., 2020; Keyes et al., 2021), alcohol and drug use disorders (Buckingham & Daniolos, 2013; Geoffroy et al., 2016; Wilkinson, 2017; World Health Organization, 2017), disruptive behavior disorders (Sarmiento & Rudolf, 2017; Jaffee, 2017; Zhang et al., 2019; Hentges et al., 2019), antisocial behavior (Kimonis et al., 2014; Dackis et al., 2015; Sarmiento & Rudolf, 2017; Busso et al., 2017; Hawes et al., 2018) and psychosis (Devouche & Gratier, 2019; 2017; Thal et al., 2019; Tran et al., 2017). Mental health consequences of childhood maltreatment can manifest in different forms depending upon various personal, social and cultural factors.

Age and sex, two socio-demographic variables, are usually found to influence an adolescent's childhood maltreatment experience and mental health status. Boys are supposed to experience general maltreatment more than girls, but in the case of specific maltreatment, girls are more likely to experience sexual abuse (Abbasi et al., 2015; Christoffersena et al., 2013; Subramaniam et al., 2020). Boys generally report experiencing indirect victimization (witness to domestic violence and exposure to community violence) more than girls (García & Ochotorena, 2017; Liu, 2012). Sex differences in many mental health problems are apparent; males are prone to externalizing problems, whereas females are found to be vulnerable to internalizing problems. However, such relationships are not always straightforward. Various macro and micro-level factors influence the relationship. Social, cultural and personal factors can always moderate the relationship. Early life experiences and the social and cultural context in which they live are possible factors influencing the relationship.

Age is another crucial factor influencing the experience of childhood maltreatment and mental health. Younger adolescents (12-14) and older adolescents (15-17) may differ in terms of the maltreatment they have experienced. Previous studies report inconsistent findings; Mossige and Huang (2017) and Pandey et al. (2020) found that younger adolescents experienced more maltreatment than older whereas other researchers (Dhakal et al., 2019; Lev-Wiesel et al., 2018; Pereda et al., 2014) have found the opposite pattern. Mental health difficulties faced by younger and older adolescents are found to vary. Some previous studies in Nepal have tried to address this issue and most have found that older adolescents experience more mental health difficulties than younger adolescents. However, other studies in Nepal and other countries have found opposing results (Chhetri et al., 2021; Vicente et al., 2012). Age and mental health problems are related, but the nature of the relationship seems to vary.

There are variations in the occurrence of childhood maltreatment across different countries. Low and middle-income countries (LMICs) have a higher prevalence of childhood maltreatment (Le et al., 2018), even higher in East Asia and Pacific regions (Fry et al., 2012). Nepal, being an LMIc, possesses a higher prevalence of childhood maltreatment. Previous studies have reported that the prevalence of childhood maltreatment is as high as 100% (Kohrt et al., 2010) and 88% (Neupane et al., 2018). However, the previous reports differ in the reported proportion of children experiencing childhood maltreatment depending upon the methodological and contextual factors; they still indicate a high prevalence.

Many studies based on high-income countries have assessed the prevalence of childhood maltreatment, its causes and consequences and developed and implemented effective strategies to prevent childhood maltreatment. Effective childhood

maltreatment prevention supposedly prevents mental health problems among youths. Previous researchers have used both screening tools and diagnostic assessments to study the relationships. Screening techniques do not provide diagnostic information but can indicate a tendency for particular illnesses or groupings of conditions. Screening tools are handy and can be utilized with minimal expertise, whereas diagnostic tools are more precise but time-consuming and need advanced skills. The possible link between early institutionalization and callous-unemotional (CU) traits is a new area of investigation among researchers interested in developmental psychopathology. Studies published so far report a strong relationship between these two (Humphreys et al., 2015; Bick et al., 2017; Nelson et al., 2019). Such a type of exploration would be more beneficial for the screened-in population. Results of previous studies utilizing both types of assessment tools have consistently reported a strong association between child maltreatment and mental health problems.

Being institutionalized or living with family, being male or female and age are other important factors contributing to adolescents' mental health. One commonly reported form of mental health difficulties due to childhood maltreatment is internalizing problems (Adams et al., 2018; Dantchev et al., 2019; Meller et al., 2016; Tran et al., 2017). It is an umbrella term to denote mental health difficulties in children or adolescents. It can be defined as a group of emotions an individual faces, where these feelings manifest as more prevalent feelings of sadness, low self-esteem, behavioral inhibition, withdrawal and fear. Internalizing problems is the core feature of anxiety, depression, post-traumatic stress disorder (PTSD), phobia and somatic disorders. The other type of mental health problem victims of childhood maltreatment are found to face is externalizing problems (Adams et al., 2018; Dumaret & Tursz, 2011; Rogosch et al., 2011; Tran et al., 2017). Externalizing problems refer to

problems that occur when the individual's behavior is directed at the outside environment. Some of the most common externalizing behaviors are physical aggression, disobedience to rules, cheating, stealing, and destroying property. Externalizing behaviors are the fundamental characteristics of attention deficit hyperactivity disorder (ADHD), conduct disorder (CD), and oppositional defiant disorder (ODD).

In addition to internalizing and externalizing issues, extensive research has demonstrated that childhood maltreatment can also result in personality disturbances. The callous-unemotional trait is also a frequently reported mental health consequence of childhood maltreatment (Durand & Velozo, 2018; Kimonis, Fanti, et al., 2013; Krstic et al., 2016; Rock, 2012; Schimmenti et al., 2020). A lack of empathy, remorse and short-lived emotions characterizes it. It also includes irresponsibility, boredom, novelty seeking and antisocial behavior. The callous-unemotional trait (CUT) encompasses three factors: callousness, uncaring and unemotional. The callousness component reflects a lack of empathy, regret and remorse for wrongdoing. The second component, "uncaring," describes a behavioral trait that is based on a lack of concern for both one's own performance in activities and the feelings of other people. The absence of emotional expression is the primary behavioral trait captured by the third category, "unemotional." (Essau et al., 2006). Earlier researchers have found a strong link between callous-unemotional traits and juvenile delinquency (Docherty et al., 2017; Simmons et al., 2020). If not addressed promptly, externalizing and internalizing problems can lead to psychopathology, whereas callous-unemotional traits can lead to psychopathy.

In general, the study estimated the prevalence of childhood maltreatment and mental health problems among institutionalized and community adolescents, the

relationship between the extent of maltreatment, mental health problems and the possible detrimental role of childhood maltreatment in developing mental health problems. It is one of the few studies to address the mental health status of institutionalized and community Nepali adolescents, providing a clear picture of the prevalence, factors and outcomes related to childhood maltreatment among participants.

1.2 Statement of the Problem

Rapid physical, social and emotional changes mark the adolescence stage. Society is concerned about adolescents' physical health and behavioral aspects concerning universal or societal norms, but the mental health aspects of adolescents are commonly undermined. On the other hand, mental health difficulties are less visible. There are chances that even a person who experiences mental health difficulties is less likely to identify them.

Half of all mental illnesses develop before 14 years of age, but most go unnoticed and untreated (Kessler et al., 2005). Mental health disorders account for 16% of the global disease and injury burden in people aged 10 to 19 (World Health Organization, 2021). Failure to address adolescent mental health issues has long-term consequences, affecting physical and mental health and limiting adults' ability to live fulfilling lives (World Health Organization, 2020).

Previous studies on the onset of mental health consistently highlight that most mental health problems begin in the adolescent stage and early detection and intervention significantly reduce the healthcare burden. Nepali adolescents' mental health and its determinants are a less studied issue. There is a paucity of nationally representative data on the mental health status of the population and verification of the role of known precursors of mental health problems.

Certain life events are identified as precursors to mental health problems among adolescents. Childhood maltreatment may have some short-term emotional or physical effects, but it also may have long-lasting debilitating mental health consequences. Previous studies have explored the link between a specific type of maltreatment and mental health problems in general, the absence or presence of maltreatment and particular types of mental health problems or a specific type of maltreatment and distinct disorder. Most of these studies have focused on the relationship between maltreatment and mental health. The substantial connections between childhood maltreatment and a wide range of mental health outcomes suggest that maltreatment may be associated with a nonspecific risk for psychopathology rather than a specific risk for a particular disorder (Kessler et al., 2011).

Institutionalization in the early phase of life is another adverse experience frequently associated with mental health problems among youth. Being orphaned or separated from their parents or family members is a traumatic experience for a child. The possible link between early institutionalization and CU traits is a relatively new area of investigation among researchers interested in developmental psychopathology. Studies published so far report a strong relationship between these two (Humphreys et al., 2015; Bick et al., 2017; Nelson et al., 2019).

The present study estimated the prevalence of childhood maltreatment and mental health problems among a nationally representative sample of institutionalized adolescents; evaluated the relationship between maltreatment and mental health variables and a comparison between institutionalized and community, male and female; and younger and older adolescents in terms of the experience of childhood maltreatment and mental health problems.

1.3 Research Questions

i. What is the prevalence of childhood maltreatment among institutionalized adolescents compared to community adolescents?
ii. What are the differences in the pattern of childhood maltreatment between institutionalized adolescents and community adolescents?
iii. What differences are present in the age and sex-related patterns of childhood abuse between institutionalized adolescents and community adolescents?
iv. What is the prevalence of mental health problems among adolescents in institutions compared to adolescents in the community?
v. How does the prevalence of mental health problems vary between institutionalized adolescents and those living in the community?
vi. What differences exist in the sex and age-related patterns of mental health problems between institutionalized and community adolescents?
vii. What associations are there between various forms of childhood maltreatment and mental health problems in adolescents in both institutions and communities?

1.4 Objectives

1.4.1 General Objective

To estimate the prevalence, pattern and mental health consequences of childhood maltreatment among institutionalized and community Nepali adolescents.

1.4.2 Specific Objectives

i. To estimate the prevalence of childhood maltreatment among institutionalized and community adolescents.
ii. To identify patterns of childhood maltreatment among institutionalized and community adolescents.

iii. To identify the age and sex-based patterns of childhood maltreatment among institutionalized and community adolescents.

iv. To estimate the prevalence of mental health problems among institutionalized and community adolescents.

v. To identify patterns of mental health problems among institutionalized and community adolescents.

vi. To identify the age and sex-based patterns of mental health problems among institutionalized and community adolescents.

vii. To investigate the associations between different forms of childhood maltreatment and mental health problems among adolescents.

1.5 Research Hypothesis

H1. There would be a difference in the prevalence of childhood maltreatment among institutionalized and community adolescents.

H2. There would be sex and age differences in childhood maltreatment among institutionalized and community adolescents.

H3. There would be a difference in the prevalence of mental health problems among institutionalized and community adolescents.

H4. There would be sex and age differences in mental health problems among institutionalized and community adolescents.

H5. Childhood maltreatment is associated with mental health problems in adolescents.

1.6 Delimitation

This study estimated the prevalence and patterns of childhood maltreatment (CM), mental health difficulties, callous-unemotional traits, and possible effects of CM on mental health among institutionalized adolescents represented from different

care homes in Kathmandu Valley who had lived in institutions for at least two years and were continuing their education, within the age of 12-17 years of age. These respondents were orphans, abuse and domestic violence victims, ex-street children and runaways. A group of community adolescents also participated in the study. The adolescents in the community were between 12 and 17 years of age. They were recruited from the schools where institutional adolescents were enrolled. In the case of three care homes that provided schooling facilities in-house, matching adolescents from a nearby government school were recruited. Respondent adolescents from institutions and communities were matched in age, sex, and the schools in which they were enrolled.

The present study estimated the prevalence of childhood maltreatment and mental health problems based on the reports of the respondents on the questionnaires used to screen the presence or absence of specific maltreatment events and mental health problems. Patterns refer to the natural or chance configuration. The present study examined the pattern of childhood maltreatment and mental health problems among institutionalized/community, boys/girls, and younger/older adolescents.

The presence or absence of maltreatment in their lifetimes was assessed; the prevalence of seven types of maltreatment was estimated: conventional crime, physical abuse, psychological/emotional abuse, sexual abuse, victimization by peers or siblings, witness to domestic violence, and exposure to community violence. The frequency, intensity, or time of the incident was beyond the scope of this study. Hyperactivity, conduct problems, emotional problems, peer problems, externalizing problems, internalizing problems, mental health difficulties, callousness, unemotional and uncaring traits were measured as mental health problems. Comparisons were

made in terms of the respondents' residence (institution or community), sex (male or female), and age (younger and older). The present study did not aim to diagnose mental health problems; it only screened mental health difficulties and CU traits.

The prevalence of maltreatment, mental health difficulties and callous-unemotional traits was estimated with the help of self-report measures. Subjective narratives of the respondents and the parents/guardians' reports regarding the experience of maltreatment or mental health difficulties and CU traits were not collected. Statistical procedures were used to report the prevalence and relationship or effects between variables.

The study has a few limitations, even with its large sample size and the use of standardized tools. Due to purposive sampling, the sample may not accurately represent all institutionalized adolescents in Nepal. The cross-sectional design and self-reported data confine the ability to draw inferences about causal relationships and the long-term effects. Furthermore, concentrating only on adolescents and using questionnaires could have overlooked insightful comments from parents, educators, or in-depth interviews. Another possible limitation of the study is that it focused exclusively on boys and girls as participants, potentially overlooking the experiences and perspectives of individuals who identify beyond the gender binary. These limitations may affect the generalizability and depth of the study.

1.7 Significance of the Study

Globally, the adolescence stage is identified as a vulnerable stage for mental health problems. Adverse experiences in childhood increase the susceptibility to mental health difficulties. CM, as an adverse life experience, is found to exert serious negative effects on the mental health of children and adolescents. Many dimensions of traditional child-rearing practices in Nepal, also known as child disciplining, are

considered forms of maltreatment according to the international standard of child maltreatment. The mental health consequences of such practices have yet to be explored in the Nepali context.

The present study estimated the prevalence of CM, mental health difficulties and CU characteristics among a representative proportion of institutionalized adolescents and community adolescents. It also examined the relationship between CM, mental health difficulties and CU traits among respondents and the effect of specific maltreatment experiences on mental health and CU trait outcomes.

CM is legally prohibited in Nepal, but cultural practices contradict international and national standards. Parents, guardians, or caregivers are likely to be involved in activities considered child maltreatment. Such experiences would have inevitable negative mental health consequences, even if the intentions of the doers were genuine, that is, correcting or disciplining the child. The prevalence of maltreatment among adolescents sheds light on the current hardship experienced by Nepali adolescents living in institutions and the community. It helps capture a contemporary scenario of maltreatment and suggests necessary actions to stop such practices to help children lead healthy lives. The results are useful to policymakers, educators, mental health workers, parents and guardians and other stakeholders involved with child welfare.

The mental health status of Nepali youth is little known. Some attempts have been made at the national level to assess the mental health status of the Nepali population. The preliminary results of such surveys show a higher prevalence of mental health problems among Nepali adults and youths. Sociopolitical instability, recurrent natural disasters and ever-present economic hardship, directly and

indirectly, contribute to elevated mental health problems. Along with these adverse experiences, adolescents institutionalized as a child are likely to have some additional traumatic experiences.

Institutionalized children are prone to experience more psychosocial adversities because of separation, lack of attachment and deprivation of various fundamental needs. Care homes housing children try to address basic physical needs, but psychological needs of equal importance are less prioritized. The impact of institutionalization on adolescents' mental health provides valuable insight into the mental health condition of the residents. The total difficulties subscale of the Strength and Difficulties Questionnaire (SDQ) shows the general mental health condition of the respondents. Externalizing problems represent mental health difficulties manifested as behavioral problems that can lead to behavioral disorders in later life if not intervened promptly.

On the other hand, internalizing problems represent implicit emotional problems and are likely to cause different emotional disorders. The mental health screening results provide a glimpse of the prevalence of mental health difficulties experienced by adolescents living in institutions and communities and compare them. It helps to know the current mental health status among institutionalized adolescents, the type and extent of mental health difficulties experienced by them and the differences in mental health status between the community and institutional and male and female and younger and older adolescents. The results help stakeholders understand the current situation and identify the particular types of mental health difficulties experienced by adolescents of institutional or community backgrounds.

Additionally, estimating the callous-unemotional trait among institutionalized and community adolescents helps to explore the possibility of developing

psychopathic traits. CU traits in early life are recognized as a predictor of psychopathic personality in adulthood and early life adversities are strong determinants of CU traits. Early identification of CU traits helps stakeholders design intervention strategies to minimize their effects in later life. Such interventions help protect young people from developing psychopathic traits that are equally helpful to society. The prevalence of CM and mental health problems among institutionalized and community adolescents and the sex and age-based pattern of their distribution is a crucial area to explore.

Some previous studies in Nepal have explored the prevalence of some specific forms of CM in Nepal. Most such studies were found to be focused on physical abuse or sexual abuse, but the prevalence of many other types of maltreatment of equal importance is not yet explored. Some earlier studies have also investigated the prevalence of mental health issues among children and young people in Nepal. However, the patterns of prevalence of CM and mental health problems among institutionalized adolescents, boys and girls and younger and older adolescents compared to community adolescents are yet to be investigated. Additionally, studies in other countries have shown a strong association between maltreatment experiences and mental health problems, but no previous studies in Nepal have explored this possibility. The experiences of CM may have multiple physical and psychological consequences. As per previous studies, both psychopathology and psychopathy are the possible outcomes of CM. However, most of the studies studying the consequences of child maltreatment are focused on psychopathology, and very few have studied psychopathy. The present study attempted to investigate both possibilities. It explored the prevalence and pattern of different forms of CM and

mental health problems among Nepali adolescents disaggregated by residence, age and sex. It also explored the nature of the association between various forms of CM and mental health problems.

This study adds to the existing literature by adding information on the prevalence of different forms of child maltreatment and mental health problems among adolescents. It also addresses the research gap by exploring the prevalence and patterns of CM and mental health problems concerning socio-demographic variables. It also examines the possible contributions of child maltreatment to mental health problems among Nepali adolescents.

1.8 Definition of Key Terms

1.8.1 Prevalence

Prevalence refers to the proportion of individuals in a population who exhibit a particular trait during a specific timeframe. The present study estimated the prevalence of childhood maltreatment and mental health problems based on the respondents' reports on the questionnaires used to screen the presence or absence of specific maltreatment events and mental health problems. Among different types of prevalence, the lifetime prevalence of childhood maltreatment and was studied in the present study.

1.8.2 Patterns

A pattern refers to a recognizable and systematic occurrence or distribution of events, characteristics, or outcomes within a population over a period. Patterns of specific characteristics can be identified by analyzing data collected from individuals or groups within a given population. The present study examined the pattern of childhood maltreatment and mental health problems among institutionalized and community adolescents in relation to their sex and age.

1.8.3 Childhood Maltreatment

Childhood maltreatment, also referred to as child maltreatment, denotes to the abuse and neglect of children under the age of legal maturity. It encompasses all forms of physical abuse, emotional abuse, sexual abuse, neglect, negligence and commercial or other exploitation that cause actual or potential harm to a child's well-being, existence, growth, or respect within a relationship involving responsibility, trust, or authority. In the present study, child maltreatment refers to the seven types of maltreatment calculated based on the 12 statements of the abbreviated Juvenile Victimization Questionnaire (JVQ) version. The aggregate score of the JVQ based on a respondent's response to the seven types of maltreatment was used to calculate the total victimization score (TVS).

1.8.4 Conventional Crime

Conventional crimes refer to traditional illegal behaviours that are commonly recognised as criminal activities, such as murder, rape, assault, robbery, burglary, and theft. Items 1, 2 and 3 of the JVQ were used to confirm the experience of conventional crime.

1.8.5 Physical Abuse

Any deliberate act of injuring, harming, or traumatizing a child through physical contact is considered physical abuse. It can be inflicted by burning, biting, scratching, breaking bones, choking, slapping, punching, kicking, and drowning, among other ways. In addition to tying someone up, locking them in a room, or using drugs or alcohol to restrain them, physical abuse can also involve the use of weapons or other objects to injure someone. Items 2, 3 and 5 of the JVQ provided information on experience of physical abuse.

1.8.6 Psychological/Emotional Abuse

Behavior patterns that negatively impact a child's emotional growth and welfare are considered forms of psychological or emotional abuse. It can manifest in several ways: anger, bullying, teasing, and persistent rejection. Item 4 of the JVQ corresponds to this form of child maltreatment.

1.8.7 Peer or Sibling Victimization

Peer or sibling victimization refers to the experience of being victimized or bullied by a peer or sibling. Items 5, 6 and 7 of the JVQ were used to confirm the experience of this form of child maltreatment.

1.8.8 Sexual Abuse

Child sexual abuse is the term used to describe when an adult or older adolescent uses a child for sexual stimulation. Sexual activities such as voyeurism, exhibitionism, fondling, penetration, and masturbation can all be a part of this. Items 8 and 9 of the JVQ correspond to this form of maltreatment.

1.8.9 Witness to Domestic Violence

Witnessing domestic violence refers to the experience of observing or being aware of abusive behavior between intimate partners or family members. This may involve witnessing physical, sexual, emotional, financial, or psychological abuse. Item 10 of the JVQ was used to identify the experience of this form of child maltreatment.

1.8.10 Exposure to Community Violence

The experience of seeing or being exposed to deliberate acts of interpersonal violence in public places by people who are not close family members of the victim is referred to as exposure to community violence. Items 11 and 12 of the JVQ correspond to this form of child maltreatment.

1.8.11 Adolescents

Adolescence is the phase of life between childhood and adulthood. Different authorities propose different age criteria for adolescents; the present study refers to people aged 12-17 as adolescents.

1.8.12 Institutionalized Adolescents

Institutionalized adolescents are those who have been living in the institution under institutional care. They may be orphans, ex-street children, runaways, victims of domestic violence, or different forms of abuse.

1.8.13 Community Adolescents

These are those noninstitutionalized adolescents living in their community with their family or guardians and those who have never been institutionalized are referred to as community adolescents in this study.

1.8.14 Younger Adolescents

Adolescents in the early phase (close to childhood) of the adolescence stage are referred to as younger adolescents; respondents aged 12-14 are referred to as younger adolescents in this study.

1.8.15 Older Adolescents

Adolescents in the later phase (close to young adulthood) of the adolescent stage are referred to as older adolescents; respondents aged 15-17 are referred to as older adolescents.

1.8.16 Mental Health Problems

The term mental health problems incorporates all mental health issues ranging from basic to advanced forms. This study uses the term to refer to all the composite and sub-scale-based mental health variables studied. The strengths and difficulties questionnaire (SDQ) has eight: total difficulties, externalizing, internalizing,

emotional problems, peer problems, conduct, hyperactivity and prosocial behavior; and the inventory for callous-unemotional traits (ICU) has four subscales: CU total, callousness, uncaring and unemotional subscales. The term mental health problems is used instead of mental disorders or mental illnesses because the tools used in this study are not diagnostic tools and a composite score for mental health problems was calculated in this study.

1.8.17 Mental Health Difficulties

Mental health difficulties refer to prediagnosed psychiatric conditions characterized by cognitive, behavioral, or emotional problems. The substantial difference between mental disorders and mental health difficulties is that psychodiagnostic assessment is required to confirm the existence of the former, and screening tools assess the latter. The present study utilized SDQ to evaluate mental health difficulties. SDQ, as a screening tool, was used to determine the extent of mental health difficulties measured in terms of total difficulties, the nature of the difficulties in terms of externalizing and internalizing problems and types of difficulties in terms of emotional problems, peer problems, conduct and hyperactivity. The composite score of the four problem-oriented subscales of the SDQ is the Total Difficulties Scale (TDS).

1.8.18 Externalizing Problems

Externalizing problems are behaviors characterized primarily by actions in the external world, such as acting out, antisocial behavior, hostility and aggression. The combined scores of conduct problem (five items) and hyperactivity (five items) subscales were used to calculate the score of externalizing problems in the present study.

1.8.19 Internalizing Problems

Internalizing problems are characterized primarily by processes within the self, such as anxiety, somatization and depression. Externalizing scores were calculated by summing the emotional problems (five items) and peer problems (five items) subscale scores.

1.8.20 Emotional Problems

Emotional disorders, which are psychological problems that can affect a person's capacity to manage and respond correctly to emotions and events, are known as emotional difficulties. Emotional symptoms refer to a range of internalizing behaviors and experiences, such as anxiety, depression, fears, and emotional distress. The emotional problems subscale in the SDQ captures the child's internal emotional state, measured by five questionnaire items.

1.8.21 Peer Problems

Peer problems are problems that come up in a person's interactions with their peers. These challenges can take many forms, including difficulty cooperating with others, gaining friends, or keeping meaningful friendships. These are the problems that come up in a person's interactions with their peers. Peer problems, measured by five items of the SDQ, involve challenges in establishing and maintaining positive interactions with peers. This subscale in the SDQ evaluates social behaviors such as difficulty making friends, conflicts with peers, and social withdrawal, providing insight into an adolescent's social functioning.

1.8.22 Hyperactivity/Inattention

Hyperactivity/inattention involves behaviors associated with difficulties in maintaining attention, impulsivity, and heightened activity levels. The hyperactivity/inattention subscale (five items) in the SDQ assesses the child's ability to focus, sustain attention, and regulate their activity level.

1.8.23 Conduct Problems

Conduct problems encompass a variety of externalizing behaviors, including aggression, rule-breaking, defiance, and conduct that violates societal norms. The conduct problems subscale in the SDQ (five items) evaluates the extent to which a child exhibits disruptive or oppositional behaviors.

1.8.24 Prosocial Behavior

Prosocial behavior refers to positive social behaviors and actions that contribute to the well-being of others and promote positive relationships. Adolescents perceive prosocial behavior as the ability to relate well with peers, take beneficial actions for those with whom they live and support others. Five items of the SDQ were used to measure the prosocial behavior of the respondents.

1.8.25 Callous Unemotional Traits

A lack of empathy, indifference to the feelings of others, a shallow or inadequate affect, and a limited capacity for feeling and expressing emotions are characteristics of callous-unemotional (CU) traits. Early childhood identification is necessary to identify these traits, which are frequently linked to conduct disorder and antisocial behavior. Besides violent or disruptive behavior, CU traits are considered a unique temperamental dimension.

The total score of the callous-unemotional traits is the sum total of all 24 items in the Inventory of Callous Unemotional Traits. The Inventory of Callous Unemotional Traits (ICU) measured the level of callous-unemotional traits and their three components: callousness, uncaring and unemotional tendencies.

1.8.26 Callousness

Callousness is defined as a lack of empathy, sensitivity to others' needs and suffering and a predisposition to manipulate people for personal gain, with minimal sorrow or remorse when others are hurt. It is the total score of 11 items representing callousness in the inventory.

1.8.27 Unemotional

Unemotional means a lack of emotional expression caused by a lack of emotional affect. It is the total score of 5 items representing unemotional in the inventory.

1.8.28 Uncaring

Uncaring implies a lack of responsibility and effort and a tendency to ignore obligations and responsibilities. It is the total score of 8 items representing uncaring in the inventory.

1.9 Organization of the Dissertation

The chapters in this dissertation are organized as per 'A Manual on Formatting and Organizing Dissertations' published by the Faculty of Humanities and Social Sciences, Tribhuvan University, in 2014. The chapters are as follows.

Chapter I: Introduction

Chapter II: Review of Literature

Chapter III: Research Methodology

Chapter IV: Results

Chapter V: Discussion and Conclusion

CHAPTER II

REVIEW OF LITERATURE

This chapter includes reviews of previous studies relevant to the field of study. It incorporates reviews on the prevalence of CM and mental health problems and their pattern disaggregated by respondents' residence, sex and age. The chapter also includes reviews of relevant theories that explain the relationship between CM and mental health. An attempt has been made to incorporate all studies conducted in Nepal on the prevalence and pattern of CM and mental health difficulties. Still, grey literature (specifically, reports from different Non-governmental organizations (NGOs) and theses by undergraduate students) are not included. Empirical studies and systematic reviews published in peer-reviewed journals based on Asian countries and low- and middle-income countries published between 2010-2022 were prioritized. Some landmark empirical studies and conceptual articles as old as published in the 60s are also included.

2.1 Prevalence of Childhood Maltreatment

CM is identified as an adverse childhood experience with potentially severe consequences. Many high-income (developed) countries have tried to control and manage its consequences. There have been nationwide prevalence studies based on nationally representative data in many countries. There are also systematic reviews and meta-analyses on the prevalence of CM; they provide information on various technical and practical aspects of the studies and prevalence.

A systematic review and meta-analysis of research articles from low- and lower-middle-income countries on poly victimisation of children and adolescents (Le et al., 2018) included 30 studies that met their inclusion criteria, including one study from Nepal (Kohrt et al., 2010). They found heterogeneity in the prevalence of

victimizations among countries. At least one type of victimization was reported by 66.81 % to as high as 100 % of the participants. The researchers further clarified that the higher prevalence of at least one form of maltreatment was among war-affected LMICs than among others. The prevalence of the specific type of victimization differed from country to country. Sexual abuse was among the least prevalent forms, with 0.7 % among Kenyan and 0 % among Egyptian youth. The highest exposure prevalence, as they found, was for 'being threatened with death' 99.3 %, among Ugandan former abducted adolescents. They concluded that CMs are highly prevalent among LMICs irrespective of being war-affected or non-affected.

2.1.1 Prevalence and Patterns of Childhood Maltreatment among Adolescents in the Community

There is a paucity of studies in Nepal on CM's prevalence and/or consequences. No single study explicitly focused on the prevalence of CM in Nepal. Some studies used data collected for other purposes to estimate the prevalence of CM. In such a study, Atteraya, Ebrahim and Gnawali (2018) used the 2014 Nepal multiple indicator cluster survey data (the 2014 NMICS). The study analyzed the occurrence of child maltreatment in Nepal, focusing on physical (moderate to severe) and emotional abuse, child labor level, and the household-level factors associated with child maltreatment. Nearly 50% of the participants reported having endured mild and 21.5 had endured severe physical abuse in the previous month. Emotional abuse was reported by 77.3%. Nearly 27 % of the children were engaged in domestic work and 46.7 % were involved in economic activities. They also found that being economically underprivileged, belonging to the *Kirat* ethnic group and living in rural areas strongly correlate with child maltreatment.

Kandel et al. (2017) studied the prevalence and associated factors of child maltreatment in Nepal and this study was based on data collected in 2014; they found that disciplining a child was a common practice and exemplary behavior (explanation of wrong behavior) was the most common form of disciplining (91 %) followed by shouting, screaming or yelling at the child (77%), physically punished by a household member (46%), spanked hit or slapped with bare hand (33%). The prevalence was higher for men and younger children. Though the study does not provide the overall prevalence of child maltreatment, it hints at the high prevalence of child maltreatment in different forms or names.

In another study, Neupane et al. (2018) studied prevalence (both lifetime and past year), perpetrator characteristics and correlations of child abuse among 962 school students aged 14-16 years from Kathmandu. The researchers utilized the Child Abuse Screening Tool-Child Home, a survey tool designed to assess various forms of child victimization in the households of children aged 11 to 18. They found that 88.09 % of the participants reported experiencing at least one form of abuse in the previous year and 88.88 % had such an experience throughout their lifetime. They have estimated the participants' past year and lifetime prevalence of child maltreatment. The most prevalent form of child abuse was psychological abuse; 75.19 % of the participants reported experiencing it in the previous year and 76.15 % lifetime experience of the same type of abuse. Experience of physical abuse in the last year and lifetime was reported by 65.43 % and 67.34 % of the participants, respectively. Exposure to violence in the previous year was reported by 56.53 % and lifetime exposure by 59.47 % of the participants. Sexual abuse in the last year was reported by 11.26 % and 12.74 % of the participants in their lifetime. Participants reported that they experienced 6.27 victimization events throughout their lifetime and 5.79 in the

previous year on average. This recent study provides a glimpse of the prevalence of CM in an urban setting in Nepal. Participants of this study were students from public schools in Kathmandu Valley and this study focused on abuse at home.

Rajbanshi (2012), among 150 adolescent students from a single school in Kathmandu, found that 41.3 % of the participants had experienced any form of sexual abuse in their lives. More boys than girls and more older (13-15) than younger adolescents reported experiences of sexual abuse. This study provides a glimpse of the prevalence of sexual abuse among students from Kathmandu.

There have been studies on the prevalence of CM in many Asian countries. Such studies report varying prevalence rates of CM depending on culture, religion, economic status of the nation, the study context, tool/s used to collect data and data source/s. Most of the prevalence studies are based on data from community participants. A survey among Singaporean adults (Subramaniam et al., 2020) administered face-to-face interviews by trained interviewers to collect information on their CM experiences and mental health. The lifetime prevalence of CM among participants was 63.9 %. Of the participants, 50.9 % reported experiencing physical or emotional abuse or neglect, 3.7 % experienced sexual abuse and 2.0 % experienced bullying. They also explored demographics-based patterns and found that older (65 and above) and less educated people were more likely to experience CM. They also found that more girls than boys experienced sexual abuse as a child. This study was based on retrospective data; participants were 18-65 years of age or older.

Correspondingly, Chan (2013) found a lifetime prevalence of 71 % among Chinese school-age adolescents. This study included a broad and varied sample from China and utilized the JVQ to gather information related to maltreatment. However, Liu (2012) found a lifetime prevalence of 35.4 % among Wuhan adolescents in China.

The lifetime prevalence for emotional abuse was 10.4 %, witnessing domestic violence 3.38 % and indirect victimization 17.7 %. More boys than girls reported witnessing domestic violence and sexual abuse. The difference in prevalence between these two studies, although both used the same tool to study the prevalence of maltreatment, can be attributed to the data source. The former study obtained information directly from the adolescents, whereas the latter relied on parents. Parents seem to underreport the occurrence of maltreatment compared to adolescents themselves.

A study among Malaysian adolescents (Choo et al., 2011) found that the lifetime prevalence of child maltreatment was 10 %; this study was a cross-sectional survey among 1870 adolescents from 20 randomly selected schools. The most common types of abuse were physical and emotional, as reported by the participants. More boys than girls reported experiences of sexual abuse. Poor parent–child relationships and school and neighborhood environments were the most substantial associates of victimization. Malaysia is an Asian country where people of different origins reside. Chinese, Indians, and natives make up a significant proportion of the country's population. The official religion of Malaysia is Islam. Therefore, the complex blending of different nationalities, races, cultures and religions makes it a multicultural nation. A high-income country, Malaysia has strict rules and regulations to ensure the child’s best interest. The relatively low prevalence of CM in Malaysia reflects these initiations.

A study in Japan (Tsuboi et al., 2015) found an even lower prevalence (5%) of CM. This study used a self-administered questionnaire to measure the prevalence of child maltreatment among Japanese adults. This cross-sectional study was conducted retrospectively using a national epidemiological survey. They found that the prevalence of the four types of maltreatment they studied was: physical abuse at 3

%, sexual abuse at 0.6 %, neglect at 0.8 % and psychological abuse at 4 %. They also found a significantly unequal distribution of maltreatment in terms of sex, more females reported experiencing child maltreatment than males and it was true for all four types of maltreatment studied. Japan, being a high-income Asian country, has considerably advanced rules and regulations to ensure the best interest of the child. The researchers had also recruited people as young as 16-19 years old but were not included in the study for analysis because none reported experiencing maltreatment. It shows that the extent of child maltreatment is decreasing in Japan, reaching near zero.

Most studies report a higher prevalence of CM, but the pattern concerning demographics is not uniform. Lev-Wiesel et al. (2018) found a prevalence of 52.9 % of CM among Israeli adolescents. Emotional abuse (31.1 %) was the most reported form of child maltreatment, followed by sexual abuse (18.7 %), physical abuse (18.0 %) and exposure to domestic violence (9.8 %). More boys than girls reported experiencing maltreatment, including sexual abuse. Older adolescents than younger adolescents reported that they had experienced CM. Israel is unique from other Asian, European and American countries regarding religion, culture, values and norms. However, the similar prevalence and comparable pattern of CM distribution suggest the problem's universality.

Almuneef et al. (2018) surveyed 10,156 Saudi Arabian adults to explore the prevalence of adverse childhood experiences (ACEs). They did not report the lifetime prevalence and age and sex-based patterns of ACEs; they discovered that 57 % had witnessed domestic violence, 52 % had experienced emotional abuse, 42 % had experienced physical abuse, 39 % had experienced bullying, 29 % had experienced neglect and 21 % had experienced sexual abuse. It was also a retrospective study based on information obtained from an adult population regarding their experience as a child.

A population-based study in Taiwan (Feng et al., 2015) found that 91.3 % of the participants have experienced at least one type of maltreatment in their lifetime. This prevalence is one of the highest among Asian countries. Among the maltreatment types studied, violence exposure was reported by the highest proportion of participants (82.2 %), followed by psychological abuse (69.2%), physical abuse (61.4%) and sexual abuse (19.8%). More boys reported experiencing physical and sexual abuse than girls and more girls reported experiencing psychological maltreatment than boys. Although it is a high-income Asian country, the elevated prevalence in Taiwan suggests the potential role of culture in CM.

Tran et al. (2017) reported a higher prevalence of child maltreatment among Vietnamese adolescents; they found an 83.4 % prevalence. The highest reported form of child maltreatment was emotional abuse, reported by (59.9%), followed by physical abuse (38.5%), witnessing domestic violence (23.7%) and sexual abuse (10.3%). They found that most types of maltreatment were positively related, indicating that different types of child maltreatment coexisted. More boys reported experiencing sexual and physical abuse, while more girls reported experiencing emotional abuse than boys. Vietnam is a lower-middle-income country per the World Bank's ranking. The reported rates of CM by Vietnamese participants are lower than by Taiwanese participants, suggesting a limited role the country’s economic status has to play in the case of CM.

Studies from American and European countries have also reported a varying rate of the prevalence of CM. Among adults residing in the metropolitan Memphis, Tennessee area, USA (Scher et al., 2004) found that one-third (35.1%) of the participants met the criteria of CM. Physical abuse was reported by the highest proportion of participants (18.9%), followed by emotional abuse (12.1%) and sexual

abuse (5%). They also explored demographics-related patterns and found that more women reported childhood experiences of emotional abuse and sexual abuse than males and more males reported childhood experiences of physical abuse than females. This retrospective study collected required information from adults via telephone interview. Another study among adult participants from the United States of America (USA) (Green et al., 2010) found that more than half (53.4%) reported having experienced at least one type of CM when they were a child. The tool used to collect child maltreatment-related information differed from those used in other studies. The researchers identified the possible effects of time recall as one of the confounding factors. A relatively recent survey among US adolescents (Finkelhor et al., 2015) found that the lifetime prevalence of CM for the age group (14-17 years) was 38.1 %. The highest percentage of adolescents (57.9%) was followed by exposure to domestic violence (32%), emotional abuse (23,9%) and physical abuse (18.1%). They did not find significant sex differences in these victimization types.

In a nationally representative sample from the US (N = 1,45,464), Turner et al. (2017) explored the relationships between childhood sexual abuse and mental health consequences in males. The National Epidemiological Survey on Alcohol and Related Conditions (NESARC), conducted in its second wave between 2004 and 2005, served as the data source. They found that 5.3% of the male participants had experienced child sexual abuse (CSA), 58.1% of the males experienced no child maltreatment, 36.7%; 1.3% of individuals experienced child sexual abuse (CSA) exclusively, while 4.0% experienced CSA along with other types of maltreatment. The remaining individuals experienced maltreatment without CSA. Among men who experienced CSA, 5.3% most experienced CSA along with other types of child maltreatment

(4.0%) and that exposure to intimate partner violence (IPV), physical abuse and emotional abuse were the most frequent types of maltreatment that also cooccurred with CSA. CSA was more common with other types of maltreatment than alone.

Studies in the United Kingdom (UK) also report a diverse prevalence, depending on different methodological and practical factors. A recent study (Hanlon et al., 2020) among UK biobank participants found that 33 % of the participants had experienced at least one type of CM as a child. Physical abuse was the highest reported type of maltreatment by 18.9%, emotional abuse by 15.6 % and sexual abuse by 8.7 %. More women reported emotional and sexual maltreatment than men. This retrospective study was also a retrospective study. Jackson et al. (2016) discovered that the lifetime prevalence of maltreatment was 84.1 % in a study aimed at examining the prevalence of extrafamilial victimization among young people from a county in England (Warwickshire) in the UK. This study discounted intrafamilial experience, but the lifetime prevalence is still high and comparable to the rate reported by studies showing high prevalence.

Studies in the UK and the USA are inconsistent regarding their reported prevalence. But based on the review, it can be inferred that the prevalence of CM is still higher among the residents of these countries, though the rate is decreasing, as identified by recent studies (e.g., Moody et al., 2018).

Recent studies in European countries also report a diverse prevalence for CM. A study in Portugal (Martins et al., 2019) found the lifetime prevalence of any form of maltreatment to be 49.9 % among 12-21 years adolescents and youths. They also found that men and older adolescents were more likely than females and younger adolescents to experience child maltreatment. Mossige and Huang (2017) found a slightly higher rate of CM; 62.5 % of participants in a national youth survey in

Norway reported that they had experienced at least one type of CM up to the age of 18-19 years. The highest prevalence was found for bullying (40.5 %); followed by witnessing domestic violence (24.9%); physical abuse (20.6%) and sexual abuse (19.6%). They also found that CM rates tend to decrease from childhood to adolescence, except for sexual abuse. Aho et al. (2016) reported a higher rate of CM in Sweden; they found that the lifetime experience of child maltreatment was reported by 84.1% of the 5960 (aged 17 years) adolescent participants. They used the JVQ to obtain information related to maltreatment experiences. They found that 66.4 % of the participants had experienced conventional crime, followed by victimization by peers and siblings by 54.4 %, witnessed victimization by 54% and sexual victimization by 21.8 %. More girls were victimized by their peers and siblings, including sexual and witnessed victimization, as well as physical and psychological/emotional abuse. In contrast, more boys reported experiencing conventional crimes than girls.

A very high lifetime prevalence of child maltreatment (91%) was found among Spanish adolescents (García & Ochotorena, 2017). Of the participants, 76.3 % reported having experienced conventional crime, 72.7 % had experienced victimization by peers or siblings, 65.5 % had experienced indirect victimization, 19 % reported having experienced sexual victimization, the experience of psychological abuse was reported by 25% and physical abuse by 16.4 %. More boys reported experiencing conventional crimes and victimization by peers or siblings than girls, whereas more girls reported experiencing sexual abuse than boys. More older adolescents, when compared with younger adolescents, reported experiencing the most types of victimization. These studies from European countries report a high prevalence of CM and a similar distribution pattern in terms of the age and sex of the participants.

2.1.2 Prevalence and Patterns of Childhood Maltreatment among Adolescents Living in Institutions

Being away from home or family and living in institutions early on is a bitter experience for a developing child. It is the only choice sometimes when there are no other options to ensure their best interests when family members victimize them and there are high chances of revisiting when there is the absence of parent/s, or the living condition is dangerous for the child's well-being. A large number of children and adolescents live in institutions in Nepal. Around 600 care homes house around 15000 runaways, street children, orphans, ex-child laborers and victims of domestic abuse in Nepal. The prevalence of CM among this population has not yet been explored.

In a study among 103 Nepali children and adolescents (*M Age*=14.97 years, *SD*=1.53 years), ex-child laborers living in care homes found a high prevalence of CM (Dhakal et al., 2019). The study used JVQ to measure victimization; almost all participants experienced at least one type of maltreatment. Among them, 72 % of young people experienced CM (physical abuse, sexual abuse, psychological/emotional abuse, neglect). Physical abuse was reported by 46.6 % of the participants, followed by emotional abuse by 40.77 %, sexual victimization by 27.20 % and neglect by 33 %, respectively. Conventional crime was reported by 93.2 % and 87.4 % of participants reported witnessing/indirect victimization. The reported maltreatment rates are based on lifetime experience, so they do not disaggregate pre-institutional or peri-institutional maltreatment experiences. The participants of this study were limited to a specific group of institutionalized adolescents, ex-child laborers. Pandey et al. (2020), in a similar study in India, found that the lifetime prevalence of child maltreatment is 83.36 %, the highest reported type of maltreatment was physical abuse (72.73 %), witnessing domestic violence (52.3%), emotional abuse (47.7%) and sexual abuse (6.8%). All participants (100%) reported

being subjected to indirect victimization and experiencing conventional crime. More younger adolescents reported physical abuse; when compared with noninstitutionalized participants, participants from the institutions reported higher rates of physical and emotional abuse (results of comparisons are only reported for these abuse variables).

A group of researchers (Zhang et al., 2019) in their study among 457 Japanese institutionalized children and adolescents (*M Age*=11.7 years, *s*=1.93 years), found that the most prevalent forms of child maltreatment were physical neglect (47.3%), poverty (36.4%) and physical abuse (33.6%). All participants reported experiencing at least one type of childhood adversity and adversity correlated highly. They obtained data on 18 different types of adversity. This study showed a higher prevalence of childhood adversity experience among institutionalized children in Japan than the study reporting childhood adversities among community participants (Tsuboi et al., 2015). The findings suggest that CM is one of the significant factors behind institutionalization.

Morantza et al. (2013) estimated the prevalence of maltreatment prior to admission to institutions among Kenyan children and adolescents. They discovered that most child and adolescent residents had been subjected to at least one form of maltreatment (66%). Before admission, 27 % of the children had experienced psychological abuse, 8 % had experienced physical abuse and 2 % had experienced sexual abuse. This study obtained information based on file review and included data from children 0-16.7 years of age at admission. Reviewing the records, they also found that nearly half (52%) of the children were admitted for maltreatment-related reasons. This study is unique to other studies for two reasons: first, it is from Kenya, an African nation; second, it shows the prevalence of maltreatment before being institutionalized.

Previous researchers have proposed that institutionalization is not necessarily an ideal environment for a child. Based on the findings of empirical studies, many countries have shut down such institutions and terminated the provision of institutionalization. Between 2005 and 2013, the Republic of Georgia successfully closed 32 significant state-run institutions. They tried to reintegrate the children into their families and an alternate care system was provided (Greenberg & Partskhaladze, 2014). Empirical investigations of institutionalization usually report adverse psychological, social, physical and mental health consequences. There has been a recent trend to investigate the extent of child maltreatment in such institutions. Such studies have indicated that institutions are not always safe places for disadvantaged children and adolescents.

A systematic review (Sherr et al., 2017) found that institutionalized children and adolescents are at risk of physical abuse by the staff and verbal, physical and sexual abuse by their peers. Euser et al. (2014) found that institutionalized and children in foster care experienced nearly threefold more physical abuse than the general population. The study utilized data from adolescents aged 12 to 17 residing in residential and foster care.

Few studies have also reported the positive sides of being institutionalized; for example, a longitudinal study among orphans or separated children and adolescents living in institutions and families from 5 low- and middle-income countries (LMICs) in sub-Saharan Africa and Asia (Gray et al., 2015) found that lifetime prevalence by age 13 of any potentially traumatic event was 91.0 % in institutionalized and 92.4 % in community adolescents, the annual incidence of any potentially traumatic event was lower in institutions than in the family. More children in the family than in institutions had experienced physical or sexual abuse by age 13. The findings suggest

that foster homes are not the best alternatives to institutionalization in low-resource settings. In other words, children placed in a family are more vulnerable than children placed in institutions for experiencing potentially traumatic experiences.

2.2 The Prevalence of Mental Health Problems

Adolescents worldwide have a significant disease burden due to mental health problems. In 2019, it was estimated that one in every seven adolescents has a mental disorder (GBD, 2019); this is equivalent to an estimated 166 million teenagers worldwide (89 million boys and 77 million girls. Based on a review of the global burden of disease (GBD) study (Erskine et al., 2017) estimated that the global prevalence of mental health disorders in ages 5-17 was 6.7 %. However, the researchers realized that the data did not cover the world and certain parts of the world were underrepresented. A recently published systematic review and meta-analysis (Barican et al., 2022) found that the prevalence of mental disorders among children and adolescents from high-income countries was 12.7 %. The review was based on data from 11 high-income countries. A review (Kieling et al., 2011) reported that 10-20 % of children and adolescents worldwide suffer from mental health problems; however, such studies underreport the prevalence of LMIc because only 10 % of trials come from low- and middle-income countries, where 90 % of children and adolescents live. Furthermore, Srinath et al. (2010), in an epidemiological study, also found a similar 10-20% prevalence of child and adolescent mental health problems in Asia.

Recently, an attempt was made to survey the prevalence of mental disorders in Nepal at the government level. Reports of the study are being publicized and per the latest update, the prevalence of the (diagnosable) mental disorder is 5.2 % (Nepal Health Research Council, 2020) among adolescents aged 13-17 years. These data are

based on diagnostic evaluation and refer to mental disorders; the rate of mental health difficulties would be even higher. In a previous report, they reported the rate to be 11.2 % (Jha et al., 2019). The final report will clearly show the prevalence of mental health disorders among Nepali adolescents.

2.2.1 Prevalence and Pattern of Mental Health Problems among Adolescents from the Community

Studies based on adolescent participants recruited from the school or community report different prevalences for mental health disorders or problems. A recent study (Chhetri et al., 2021) used the Strength and Difficulties Questionnaire (SDQ) to screen the prevalence of mental health difficulties among 902 aged 10-19 years, school-going children and adolescents from two purposively selected schools from Tansen, Palpa. They found that the prevalence of general mental health difficulty (total difficulty) was 19 % among the participants. Regarding the SDQ, they found that 20 % of the participants reported internalizing, 10.75 % reported externalizing problems, and 6.5 % of the participants reported difficulties in prosocial behavior. They found that more boys reported experiencing externalizing and problems in prosocial behavior, but no sex differences were found in the case of internalizing problems.

In a cross-sectional study, Sharma et al. (2019) used a Youth self-report (YSR) to estimate the prevalence of mental health problems among 310 students from Pokhara aged between 11 and 18. They found that 30 % of the participants reported general mental health difficulties, 35.8 % reported experiencing internalization and 18.5 % reported experiencing externalization problems. Boys were 2.1 times more likely to experience mental health difficulties than girls. Regarding the YSR

subscales, they found that 58 % reported social problems, 51 % thought problems, 43 % somatic complaints, 40 % anxious depression, 34 % aggressive behavior, 14 % attention problem and 8 % reported rule-breaking behavior.

Timalsina et al. (2018) conducted a cross-sectional descriptive study among 287 adolescents. They found that 12.9 % of adolescents reported having psychosocial problems. Among them, 44.6 % had internalizing problems, 25.8 % had attention problems and 4.2 % had externalizing problems.

Adhikari et al. (2017) analyzed the prevalence of psychosocial issues among adolescents aged 10-19 in Nepal using data from the Nepal Adolescents and Youth Survey (NAYS) 2010/11.. Findings suggest that almost 14% of adolescents suffer from at least one form of psychosocial problem. Common predictors of such problems were female gender and older age. They also found that physical abuse by parents or teachers was also a significant predictor of psychosocial problems. These adverse experiences give rise to anxious sensations, restlessness, depression and suicidal thoughts. Though based on secondary data from a survey and limited to data from 58 municipalities, this methodologically sound study provides a glimpse of the prevalence of mental health problems among Nepali children and adolescents living in urban areas. More importantly, it also identified physical abuse (a form of child maltreatment) as a predictor of psychosocial problems.

A study among 787 adolescents from the Hetauda municipality (Bista et al., 2016) used the Youth-Pediatrics Checklist (Y-PSC) to assess the prevalence of psychosocial dysfunction. They found that 17.03 % of the participant adolescents reported having psychosocial dysfunction. They did not find a difference in the sex and gender-based patterns of the distribution of psychosocial dysfunction.

Additionally, Rimal & Pokharel (2013) found that the prevalence of mental health difficulties was 25 %. They conducted a study among 167 children and adolescents aged 11-17 years. The youth self-report version of the SDQ was used to obtain data related to mental health difficulties. They used the cut-off score provided by the test developers to identify adolescents with mental health difficulties and abnormal levels of other subscales. They found that 24.5 % of the participants reported having emotional problems, 22 % had peer problems, 16.4 % had conduct problems, 11.6 % had hyperactivity/inattention problems, and 7.6 % had problems related to prosocial behavior. They also found significant gender differences in the prevalences of total difficulty and emotional problems; more girls than boys reported these problems. At the same time, more boys reported hyperactivity than girls. The researchers did not calculate the score for externalizing and internalizing problems. Still, based on the data presented, it is evident that more girls experienced internalizing problems, whereas more boys reported externalizing problems. This study has addressed many methodological and practical aspects and is one of the sound studies conducted in Nepal, methodologically and practically. Mahat (2007), among students from 30 districts of Nepal, found the prevalence of mental disorders to be 14.74%. This relatively older study covers a wider site and larger sample size and is one of the pioneering studies in the field in Nepal.

A few studies in Nepal estimated the prevalence of mental health problems among children and adolescents based on parents' or teachers' reports. An earlier study (Sharma & Sharma, 2013) found that untrained teachers from eastern terai, western terai and mid-hills estimated the prevalence of psychological problems to be 38.58% among their student children and adolescents. In a recent study, the teacher reported the prevalence of emotional and behavioral problems among 6-18-year-old

children and adolescents from 16 districts of Nepal was 15.4% (Ma et al., 2022). Ma et al. (2021) also found that parents reported a prevalence of around 18.3%. If the parent's and teachers' estimations for the same group of children are combined, the adjusted prevalence would be 16.85%, towards the highest range of estimated global prevalence of 10-20%.

Prevalence studies in other Asian countries report similar rates of mental health difficulties among adolescents from the general population. The prevalence of child and adolescent psychiatric disorders reported in 16 community-based studies on 14594 children and adolescents and seven school-based studies on 5687 children and adolescents from India was analyzed, and the overall prevalence was calculated in a systematic review and meta-analysis (Malhotra & Patra, 2014). They found a vast difference in the reported prevalences of psychiatric disorders between community-based and school-based studies, 6.46 vs 23.33 %. The researchers attribute the age of the participants as one of the crucial factors behind this difference. Studies based on the community include children from all age groups, whereas studies based on school children include children within the age range. Psychiatric morbidity is lower in the 0-5 age group than in the 5-19 age group. However, most studies on the general population do not separate participants from school or community. The participants are generally referred to as community participants, even if they are recruited from schools.

Li et al. (2022), in a recent two-stage large-scale psychiatric point prevalence survey in China, found the prevalence of child and adolescent mental health problems to be 17.5 % among 17,524 participants aged 6-16 years. The large-scale study included various participants and screening and diagnostic procedures. They carried out a two-stage, extensive point prevalence survey of mental disorders. The sampling

method used was multistage cluster stratified random sampling. Five provinces of China were chosen by carefully weighing geographic division, economic growth, and rural/urban factors. The Child Behavior Checklist was utilized as a screening tool in Stage 1. During Stage 2, diagnoses were determined through the Diagnostic and Statistical Manual-based diagnostic process and the Mini-International Neuropsychiatric Interview for Children and Adolescents. In socio-demographic variables, they found that significantly more boys and adolescents aged (12-16) reported psychiatric problems than girls and children aged (6-11). This study is one of the most recent studies among reviewed studies and one of the most technically strong. Important insights can be gained from this study in China, an Asian neighbor.

A study in Shri-Lanka (Perera, 2009) found an 18.9% prevalence of mental health problems among adolescents aged 13-18. They used SDQ to estimate the prevalence. Among the subtypes of mental health difficulties measured by subscales, hyperactivity had the highest prevalence, followed by peer, emotional and conduct problems. They also found a gender-based pattern in the prevalence of mental health problems; More males reported abnormal total difficulty scores than females. Regarding the subscales, significantly more males reported peer problems and conduct problems than females and significantly more females reported hyperactivity and no significant difference based on sex in emotional problems. This national-level survey in Shri-Lanka, incorporating data from 2007 adolescents, provides information on the prevalence of mental health problems in Shri-Lanka. Furthermore, significantly more participants in developed areas reported psychiatric problems than in less developed areas and there was no significant difference in the prevalence between participants from the rural and urban areas.

A study in Singapore (Woo et al., 2007) estimated the prevalence of mental health problems among 6-12-year-old children and found it to be 12.5%. This study used three different versions, child, parents and teachers, to obtain data on mental health difficulties. Although it was based on data from children, it also provides information on the prevalence of mental health problems in Singapore.

A three-year panel study on the prevalence of mental health disorders among adolescents found 19.27 % (mean of the prevalence reported in three time frames) in Taiwan (Gau et al., 2005). They also found gender-based differences in the prevalence of specific disorders. Conduct disorder and ADHD were more prevalent in boys, while depressive disorders, anxiety disorder, adjustment disorder and phobias were more prevalent among girls. Although a relatively older study, it is still cited as the study reporting the prevalence of mental health disorders in Taiwanese adolescents and provides information on the prevalence and pattern of mental health problems.

A systematic review and meta-analysis of studies from sub-Saharan Africa reported a similar prevalence of 14.5% (19.8% based on screening and 9.5% on diagnostic assessment) (Cortina et al., 2012). They reviewed ten articles out of the initial 1213 articles. These were all based on community participants aged 0-16. This study offers important information on the prevalence of mental health issues in sub-Saharan Africa based on 9713 children and adolescents from 6 African countries. Most importantly, it revealed that the prevalence would vary depending on screening and diagnostic assessment. They did not find notable differences in the prevalence based on sex and urban or rural background.

2.2.2 Prevalence and Patterns of Mental Health Problems among Adolescents Living in Institutions

There is a dearth of literature on the mental health status of institutionalized adolescents compared with adolescents in the community. Though many children and adolescents live in institutions in Nepal, very few empirical studies have been conducted to estimate their mental health status.

Ojha et al. (2013), in a study conducted among 126 children and adolescents from a conveniently selected institution in Kathmandu, found that 28.57% of institutionalized adolescents had emotional and behavioral problems and 23.01 % had diagnosable mental health problems. This study was carried out in two phases; in the first phase, participants were selected using the Child Behavior Checklist (CBCL) and in the second phase, selected screened participants underwent a diagnostic assessment by clinicians. Although it represents a single institution housing Nepali children and adolescents, it is the first study of this type. Although there was no comparison between the prevalence in community and institutionalized adolescents, the findings can be compared with those of other studies conducted in similar time frames among community participants. And the prevalence does not seem too high as expected. Regarding specific mental health problems based on the final diagnosis, the most common was conduct problems among the male children at 8.77%, followed by oppositional defiant disorder (ODD) at 5.26% and ADHD at 3.5%. Anxiety was most common among female children 13.04 %, followed by depression 7.24% and conduct 4.34%.

In another study, Dhakal et al. (2019) among institutionalized ex-child laborers found the prevalence of anxiety disorders to be higher (specific phobia 35.9%, social phobia 21.24%, separation anxiety 27.2% and panic attacks 25.2%

based on self-reports. However, key caregivers rated these problems low. Care home employees tended to rate trauma-related and externalizing issues more than the children themselves. This study also used SDQ, but the results are not provided in detail; it does not report the prevalence of general mental health problems. One remarkable finding of this study is the child's tendency to report internalizing problems more and the parent's/carer's tendency to report externalizing problems more.

A similar study in India (Pandey et al., 2020) found that of 132 participants, 83.33% had symptoms of one or more disorders. The most common were specific phobia at 41.66%, conduct disorder at 33.33%, and social phobia at 30.33%. Boys exhibited more symptoms of conduct disorder, whereas girls displayed more symptoms of specific phobia, PTSD, somatization, social phobia, and dysthymia. There were also age-related differences, with younger adolescents more likely than older adolescents to report motor tics, social phobia and separation anxiety symptoms. The researchers also claim they have a community comparison group, but the details are not explicitly presented. Compared to community care homes, participants reported specifically internalizing problems, generalized anxiety, specific phobia, panic attack, separation anxiety and dysthymia symptoms more frequently than community participants. This study reported a higher prevalence of internalizing problems among institutionalized adolescents.

The only study found so far that compared the mental health status of institutionalized and community adolescents was Erol et al. (2010) conducted in Turkey. The participants were 350 adolescents living in 12 institutions housing adolescents. A comparison group of community adolescents was from the representative sample of the national mental health profile. They used the CBCL and

YSR, among other tools, to obtain data on mental health status. The prevalence of total problems based on adolescents' self-reports was 47% in institutional versus 10% in community adolescents. The total problems score, mean internalizing problems score and mean externalizing problem scores by youth, teachers and caregivers/parents were higher for institutionalized than community adolescents. Youth in institutional care had a high rate of a diverse range of problems in all domains, with much higher rates reported by other informant sources and Diagnostic and Statistical Manual (DSM) -oriented disruptive behavior domains, but not in terms of internalizing problems domains and affective, anxiety and somatic domains. Caregivers reported fewer internalizing problems than parents of youth in the community.

The available comparative studies compared the prevalence of mental health problems between institutionalized adolescents and other adolescents, mostly in foster care. It may be because the researchers wanted to see whether institutionalization or foster care improves children's mental health outcomes.

Ford et al. (2007) compared the mental health status of the most socioeconomically disadvantaged children living in private homes and British children who were looked after by the local authority. Lay interviewers conducted structured interviews with all of the children's parents or caregivers and, if they were at least 11 years old, with the children. Parents, teachers and children 11 years or older completed the SDQ. The interviewers also verbatim recorded any areas of concern. The child's teacher also responded to an abbreviated version. A small group of clinicians combined the information provided by all informants. They discovered psychosocial adversity and psychiatric disorders were more common in institutionalized children. Children in local authority care had the highest prevalence

of most disorders and non-disadvantaged children from private households had the lowest. This study also compared the prevalence of mental health problems between two groups of disadvantaged children, so it is difficult to attribute the differences to institutionalization.

A study in Rwanda (Nsabimana et al., 2019) recruited 96 institutionalized children (both orphans and non-orphans) and 84 noninstitutionalized children (both orphans and non-orphans) aged 9-16 years. The orphan children were single orphans or double orphans. Caregivers or parents provided information on externalizing or internalizing problems as required by the CBCL. The number of lost parents and institutionalization did not affect the externalizing behavior of single orphans compared to double orphans. However, the primary impact was notable. Compared to children in families, children in institutions had more problems with externalizing behavior. But no such effect was found for internalizing behavior. This recent study showed that irrespective of other life adversities like losing one's parent/s, living with family or living in institutions matter most for a child's mental health.

The Bucharest Early Intervention Project (BEIP) utilized a randomized controlled trial involving abandoned children in six institutions for young children in Bucharest, Romania, for follow-up data (Humphreys et al., 2015) and 136 children between the ages of 6 and 31 months participated in the initial trial. They were randomized to receive regular care in institutions or to enter foster care. Children who had never been institutionalized were compared to those who had ever been institutionalized and it was found that the status had a significant impact across all domains of mental health issues. Children who had ever been institutionalized exhibited more internalizing, externalizing and ADHD symptoms than children who had never been institutionalized. Separate analyses of girls and boys revealed that

institutionalized girls experienced significantly higher internalizing symptoms than girls who had never lived in an institution. However, for boys, internalizing symptoms were unaffected by group status. Compared to those who had never been institutionalized, girls and boys placed in institutions exhibited significantly more externalizing symptoms. There were more symptoms of ADHD in both girls and boys who had been institutionalized than in those who had never lived in an institution. This study showed the adverse effects of early institutionalization on children's mental health. Although both groups of adolescents were orphans/homeless, it does not address the question, 'What would be the differences if the mental health status of the children reared in their biological family and institutions were compared?'

A study among Israeli institutionalized children and adolescents aged 6-18 years (Attar-Schwartz, 2008) found that boys had more aggression-related problems and fewer depression and anxiety symptoms than girls. They also found that younger children had more psychological problems than older children. There was no comparison group and the data were based on information collected by social workers to submit to the Ministry of Welfare. Although this study did not report the overall prevalence of mental health problems among institutionalized children, it provides considerable information on the mental health status and pattern among institutionalized children and adolescents.

2.3 The Prevalence and Pattern of CU Traits

Callous-unemotional traits is a relatively new concept in the field of child and adolescent mental health. So far, there have been no studies to report its prevalence. Research on callous-unemotional traits focuses on validating the tool/s used to measure it and testing their factor structures or relationships with other relevant constructs. The subsequent section includes a review of some conceptual articles on callous-unemotional traits.

2.4 Effects of Childhood Maltreatment on Mental Health

Several attempts have examined the relationship between CM and mental health. Such studies are focused on short-term consequences, assessing mental health problems among adolescents who experienced CM earlier, or long-term consequences, assessing the mental health status of adults who had experienced CM earlier as a child. Various tools are used to measure the extent of CM and mental health status. Here, studies on the short-term consequences of childhood maltreatment evaluating the mental health status of maltreated adolescents are reviewed. An attempt is made to review studies using JVQ to explore the extent of childhood maltreatment and SDQ to measure mental health status, as they are the most widely used tools for this purpose globally.

Chandan et al. (2019) attempted to synthesize data from a UK retrospective cohort derived from medical records to investigate the relationship between childhood maltreatment and the development of mental ill health. The study found that childhood maltreatment doubles the risk of developing a diagnosed mental illness and more than doubles the need for prescription medications used to treat mental illness during the follow-up period. Children who experienced maltreatment had higher odds of having a mental illness at the beginning. When analyzing only maltreatment cases that were officially confirmed, the risk of needing prescription medications tripled significantly. The risk remained when only children who had experienced childhood maltreatment were examined during the study period. They also obtained and compared data from non-abused participants in similar studies and found that the abused group had higher chances of having diagnosed mental disorders. Based on data from retrospective cohort studies, this study provides a solid basis for the link between childhood maltreatment and the subsequent development of mental health problems. However, the association between specific types of maltreatment and specific types of mental health problems cannot be known from the study.

A review of the physical and mental health consequences of child abuse and neglect (Leeb et al., 2011) found that attachment problems, behavior disorders (including externalizing behaviors, anger and aggressive behavior and antisocial behavior), posttraumatic stress and internalizing problems (depression and anxiety) were common consequences. They emphasize the role of timing, chronicity, type and severity in child mental health. Regarding the time of the maltreatment event, as suggested, physically abused toddlers and young children can be more aggressive and exhibit more externalizing behaviors with peers than with other types of maltreatment. Chronic maltreatment beginning in infancy, toddlerhood, or preschool was associated with more negative outcomes than maltreatment beginning later in childhood. They discovered that maltreated children respond to friendly overtures from peers and adults with avoidance, fear and anger. Such a tendency creates problems with peers. Maltreated youth may develop attributions that others have hostile intent even when no hostility is intended and, as a result, respond to perceived threats with aggression and other violent behavior (Leeb et al., 2011).

Regarding types of abuse, physically abused children also had more severe behavioral and emotional outcomes than other types of maltreatment. A linear increase in depression and anger/aggression was observed as experiences of maltreatment increased. Multiple types of maltreatment had particularly severe consequences. They concluded that the most commonly discussed internalizing behaviors in abused adolescents are depression and deliberate self-harm (suicidal ideation, suicide attempts, eating disorders and self-harm without suicidal intent) (Leeb et al., 2011). This review is quite comprehensive in many respects. The reviewers have identified the effect of timing, frequency and types of maltreatment on a child's mental health.

A study based on a latent case analysis approach (Zelviene et al., 2020) found lower levels of hyperactivity/inattention, emotional symptoms, conduct problems and peer relationship problems in the no-abuse group than in all other abuse groups. They categorized participants into three groups: no abuse, less severe abuse and severe abuse. The severe abuse group reported more hyperactivity/inattention than the less-severe abuse group and more conduct problems than the less-severe abuse groups. Compared to adolescents without abuse histories, abused groups consistently reported lower levels of psychosocial functioning, indicating that childhood abuse negatively impacts adolescents' psychosocial functioning and mental health. This study clearly showed that the early life experience of child maltreatment has adverse effects as early as adolescence, although it does not deal with the type of maltreatment associated with specific mental health problems.

Laurenzi et al. (2020) investigated caregiver-reported household violence, including caregiver IPV, harsh physical and psychological discipline and gender and violence attitudes in rural Kenya. They examined the links between these types of violence and child behavioral functioning. Exposure to IPV predicted worse behavioral outcomes in children; Child behavior worsened as the frequency of IPV increased. Harsh psychological discipline was a significant predictor of poor child behavioral outcomes. On the contrary, they discovered that harsh physical discipline did not predict child behavior outcomes. This was an unconventional finding as most previous studies and later studies have persistently found physical abuse to be one of the worst forms of child maltreatment, leading to adverse behavioral outcomes. Physical abuse was more common than psychological abuse, as reported by parents. The researchers suspect that previous researchers may have overemphasized the effects of physical abuse and underestimated the severe consequences of psychological maltreatment.

Pinto Pereira, Li and Power (2017) studied the effect of childhood maltreatment and adult living standards at 50 years of age and the impact of maltreatment on adult economic circumstances. They also examined potential mediating pathways via adolescent cognition and mental health at 16 years. Participants were from the 1958 British birth cohort, a longitudinal study of all individuals in England, Scotland and Wales (*N* = 17638) born in 1 week in March 1958. Information from these participants was collected throughout childhood (at birth and 7, 11, and 16 years) and adulthood (at 23,33, 42, 45, and 50 years). The prevalence of childhood maltreatment was also investigated at 16 (n=8076). Neglect was reported by 16.0%, emotional neglect was reported by 10.9%, sexual abuse by 11.4%, physical abuse by 5.6%, and psychological abuse by 9.6%. In another study in which three researchers from the previous studies were also involved, Geoffroy et al., (2016) also reported the association between childhood maltreatment and adulthood cognition and mental health. They found a negative association between childhood neglect and the cognitive *z* score at each age in childhood/adolescence that continued until adulthood; for example, per unit higher on the cumulative scale, the cognitive *z* score was lower by 0.31 at 16 years and by 0.15 SD at 50 years. They also conducted parallel mental health, which showed a positive association of higher symptom scores in childhood and adulthood per unit higher on the cumulative neglect scale. Thus, the association of neglect with cognition reduced slightly with further adjustment for mental health: at 16 years, the cognition deficit reduced to 0.15(0.14,0.17) *SD* (adjusted for 16 years behavioral problems) and 50 years to 0.07(0.05,0.09) *SD* (adjusted for 16 years behavioral problems and 50 years current depressive symptoms). These estimates yield cognitive deficits of 0.60 (0.56, 0.68) at 16 years and 0.28 (0.20,0.36) *SD* at 50 years for a neglect score of 4 vs. 0. Separate analyses of

the three neglect measures (prospective at 7 years, 11 years and retrospective report) showed cognitive deficits with an increasing score for all except retrospective neglect and 50 years cognition. The researchers concluded that; there was a strong association between child neglect and cognitive deficits throughout life. Furthermore, abuse was mostly unrelated to cognitive function from childhood to adulthood. Sexual abuse was an exception, with lower cognitive abilities (7-16 years) and qualifications, although associations were not independent of mental health. Lastly, in comparison with the specific associations of childhood neglect and sexual abuse with cognitive abilities, all child maltreatments were associated with increased mental health symptoms, childhood-to- adulthood. This large-scale cohort provides detailed information on the relationship between variables at different time periods.

In a nationally representative sample of the United States (Turner et al., 2017) examined the association between different forms of child maltreatment variables and mood, anxiety, substance use disorders and suicide attempts. They found that child sexual abuse (CSA) alone and CSA with other types of maltreatment had significantly higher odds of major depression, dysthymia, mania, any mood disorder, panic disorder, generalized anxiety disorder, any anxiety disorder and suicide attempts compared to child maltreatment without CSA. The strength of the association between CSA alone was not statistically different from child maltreatment without CSA. It was significantly lower compared to CSA with other types of child maltreatment for PTSD, alcohol abuse/dependence, and substance use disorders. Experiencing child maltreatment increased the odds of all mental disorders and suicide attempts except for hypomania, alcohol abuse/dependence and any substance use disorder. Those who reported experiencing CSA only had a significantly higher chance of all mental disorders and suicide attempts than those who did not experience child maltreatment

were found after controlling for socio-demographic variables and a family history of dysfunction. This large-scale study, including a nationally representative male sample, provides information on the prevalence of child sexual abuse and other forms of abuse and their consequences in terms of mental health.

In a recent study, Negriff (2020) tried to assess the effect of different types of adverse childhood experiences on adolescent mental health. Self-reported ACEs were used to measure childhood maltreatment and different measures were used to measure depression, trauma and externalizing problems (aggression). Participants in the maltreatment group were chosen from the Time 4 cohort of a longitudinal study (n=219, Mean Age=18), were active cases in the Children and Family Services (CFS) agency of a large city on the West Coast and control group participants (*N*=128, Mean Age=18) were recruited by using names from school list of children from the same areas. The researcher tried to access the effects of household dysfunction and maltreatment and each subscale of ACEs on different mental health outcomes separately. After analysis of the household dysfunction data, the researcher found that those who indicated their parents were divorced reported higher trauma and anxiety symptoms. Those who indicated witnessing IPV reported higher symptoms of depression and anxiety. In the case of maltreatment effects, the researcher found that those reporting sexual abuse or physical abuse also reported significantly higher scores on depressive symptoms, trauma symptoms and externalizing behavior. Those who reported physical neglect reported higher symptoms of depression, trauma and anxiety. Lastly, those who indicated emotional abuse or neglect showed higher scores on all four mental health outcomes (ps < .01 for all).

They used three separate models to analyze the relationship between total scores for subscales and total ACEs and different mental health outcomes; the regression

analyses showed that household dysfunctions, trauma symptoms and anxiety symptoms were significantly related. Maltreatment was found to be a significant predictor of all four outcomes: depressive symptoms, trauma symptoms, anxiety symptoms and externalizing problems in the second model. The third model found a significant association between the total ACEs score and all four mental health outcomes: depressive symptoms, trauma symptoms, anxiety symptoms and externalizing problems. When the household dysfunction and maltreatment subscales were entered into the model, the maltreatment subscale predicted all outcomes: depressive symptoms, trauma symptoms, anxiety symptoms and externalizing problems, whereas the household dysfunction score did not predict any of the mental health outcomes. This study successfully identified the association between different ACEs and possible mental health outcomes in adolescents.

Recent studies on mental health consequences of childhood maltreatment also focus on sibling or peer victimization (aka bullying) and its effects. Being victimized by peers or siblings has shown a similar or even profound impact as being victimized by adults. Dantchev et al. (2019) conducted a study based on up to 3,881 youth from the Avon Longitudinal Study of Parents and Children, a prospective birth cohort based in the United Kingdom. Sibling and peer bullying was assessed using self-report when the youths were 12 years old and depression, anxiety, suicidal ideation and self-harm were assessed using self-administered computerized interviews when they were 24 years old. It was discovered that sibling bullying and peer victimization had cumulative effects on depression, suicidal thoughts and suicidal self-harm. Those bullied at home and by peers were twice as likely to develop clinical depression and suicidal thoughts and three times more likely to have self-harmed with suicidal intent in early adulthood. In contrast, anxiety disorder appeared more closely linked to peer bullying than sibling bullying.

Psychological or emotional abuse is one of the most serious forms of childhood maltreatment. Despite the difficulties in recognizing and quantifying emotional abuse, meta-analyses of global maltreatment prevalence conclusively show that childhood emotional abuse is self-reported by a much more significant proportion of the adult population than other forms of abuse (Kumari, 2020). Taillieu et al. (2016) examined the connections between dysfunctional family history, emotional abuse, emotional neglect, both emotional abuse and neglect and other types of child maltreatment and lifetime diagnoses of many Axis I and Axis II mental disorders. The data came from the 2004 and 2005 National Epidemiological Survey on Alcohol and Related Conditions (N = 34,653). Emotional neglect was the most common type of emotional maltreatment (6.2 %), followed by emotional abuse (4.8 %) and then both emotional abuse and neglect (3.1 %). Emotional maltreatment was strongly linked to all other types of child maltreatment. All categories of emotional maltreatment were associated with an increased probability of almost every mental disorder assessed in this study in models that adjusted for socio-demographic characteristics. The effects of active (i.e., emotional abuse) versus passive (i.e., emotional neglect) forms of emotional maltreatment appeared to be greater. Childhood emotional maltreatment, particularly emotionally abusive acts, was linked to an increased risk of lifetime diagnoses of several Axis I (major depression, mania, specific phobia, post-traumatic stress disorder and alcohol abuse/dependence) and Axis II (various forms of anxiety) disorders.

This study shows the deliberate effect of childhood emotional maltreatment on a person’s mental health. This study was based on the adult sample, providing rich information on the long-term mental health consequences of childhood emotional maltreatment.

Studies reporting the mental health consequences of childhood maltreatment in institutionalized adults or adolescents or comparing the outcomes between institutionalized and noninstitutionalized populations were rare. Dhakal et al. (2019) in Nepal and (Pandey et al., 2020) in India among institutionalized ex-laborer participants found that the participant adolescents experienced higher rates of childhood abuse and reported experiencing varying rates of mental health problems. Among Nepali participants, the prevalence of major depressive disorder (MDD), motor tics and generalized anxiety disorder (GAD) was found to be higher in people with a history of any childhood maltreatment (n = 74) than in adolescents without a history. Among Indian adolescents, participants who had experienced physical abuse were more likely than those who had not experienced abuse to meet the criteria for specific phobia. In addition, significantly more emotionally abused participants than non-abused participants met the symptom criteria for dysthymia, panic attacks, major depression and oppositional defiant disorder. Rates of particular psychiatric disorders were not significantly affected by general neglect or other dimensions.

2.4.1 Effects of Childhood Maltreatment on Callous-Unemotional Traits

Studies on the association between callous-unemotional traits and childhood maltreatment have consistently shown a strong link. Joyner and Beaver (2021) used data from the National Survey of Child and Adolescent Well-Being (NSCAW I) collected over four waves of 4579 male and female youths. The number of multilevel random-effects models was estimated to investigate the relationship between child maltreatment and callous-unemotional traits. All of the models' callous-unemotional traits significantly correlated with child abuse, according to the findings of the analyses. Their models also revealed that an individual's biological sex could influence the relationship between child maltreatment and callous-unemotional traits,

with child maltreatment having a greater impact on men than women. The researchers effectively ruled out many potential confounders of the association between child maltreatment and callous and unemotional traits. As a result, the findings of this study revealed a strong relationship between child maltreatment and callous-unemotional traits over time.

Researchers frequently include juvenile delinquents in studies on different dimensions of CU traits as this population is found to have a high level of CU traits. Although they do not represent the general population, they provide helpful information on different dimensions of the CU traits. Kimonis et al. (2012) extended the concept of primary psychopathy (high anxiety) and secondary psychopathy (low anxiety) with respect to the characteristics of CU. They hypothesized that there are two types of juvenile delinquents with higher levels of psychopathic behavior and CU traits: high anxiety and low anxiety. The main contribution of these findings is that they show the variants of juvenile psychopathy identified through cluster analysis differed in their processing of emotional stimuli. Secondary psychopaths, as predicted, were more engaged by distressing emotional stimuli than primary psychopaths and endorsed more negative emotionality and childhood abuse than low-anxious primary variants. Compared to primary variants and comparison youth, the secondary variant group reported significantly more history of maltreatment. Secondary variants also endorsed significantly more symptoms of depression/social withdrawal and attention problems than primary variants and non-psychopathic comparison youths. Furthermore, the secondary variants reported significantly more anger problems than other groups.

A subsequent study (Kimonis, et al., 2013) using a person-centered approach wanted to identify CU variants in a sample of incarcerated youth and test whether they would show hypothesized differences in their experiences of specific types of

childhood maltreatment. They predicted that the analyses would reveal two groups of young people who scored high on a measure of CU traits; one resembles secondary psychopathy with higher anxiety scores and a history of physical and sexual abuse and the other resembles primary emotional and physical psychopathy with lower anxiety scores and a history of childhood neglect. A second exploratory goal was to see whether the CU variants distinguished by the maltreatment experiences also differed in their presentation of the dimensions of the CU trait. They hypothesized that primary variants would be characterized by higher unemotional scores, which have been consistently linked to core deficits in affective and empathic responses common in neglected youth.

The results showed that the uncaring subscale of the ICU was positively associated with emotional and physical neglect. Uncaring and unemotional subscales were negatively related to sexual abuse. Adolescents in the “primary psychopathy” group were distinguished from those in the “low psychopathy” and “secondary psychopathy” groups by higher scores on emotional and physical neglect, as well as the unemotional sub-scale of the ICU and lower scores on anxiety when compared to the secondary psychopathy group. Adolescents in the “secondary psychopathy” group scored higher on sexual abuse and two anxiety subscales (physiological anxiety and social concerns) than the low psychopathy group. They also scored higher on the callousness dimension of the ICU than the low psychopathy group. The primary and secondary CU groups scored similarly on the uncaring and callousness subscales. They also outperformed the low-psychopathy group on emotional/physical abuse and physical neglect. These two studies showed that there are at least two types of high-CU juvenile delinquents based on variants of psychopathy. A higher score on the emotional and physical neglect and unemotional subscale of the ICU characterizes primary psychopathy. In contrast, higher scores on sexual abuse and lower scores on the unemotional subscale of the ICU characterize secondary psychopathy.

Another study by the same group of researchers (Kimonis et al., 2013) examined the impact of maternal warmth and affection on CU traits and aggression while accounting for different forms of childhood maltreatment. They investigated this goal in a sample of 227 urban male adolescent offenders housed in residential facilities. Even after controlling for the effects of various childhood abuse and neglect types, the results showed that low maternal care was significantly associated with higher total CU traits and uncaring and callousness dimensions. Furthermore, there was a significant interaction between CU traits and care, with aggression being highest among youths with high CU traits who had low levels of maternal care. These findings are striking, as they suggest that omission (lack of maternal care) rather than commission (child abuse) is more detrimental to developing CU traits. However it does not undermine the role of early life adverse experiences in the development of CU traits.

To determine whether parental warmth and harshness were related to aggressive or CU traits when considering genetically mediated effects, Waller et al. (2018) studied 227 monozygotic twin pairs. They calculated multi-informant difference scores based on differences in the mother's reports of each twin's aggression and CU traits and the mother's and father's reports of their respective warmth and harshness towards each twin. The twin who received harsher treatment than their co-twin also experienced less warmth, according to monozygotic (MZ) findings on differences in parental warmth. The MZ aggression differences were positively correlated with CU differences, such that the twin that exhibited more aggression also showed higher CU traits than their co-twin. MZ differences in aggression and parental sternness were moderate to strongly correlated. However, only variations in CU traits were correlated with MZ differences in parental warmth

experiences. These connections were verified among twin pairs who had very different parenting histories. The researchers concluded that the twin who received warmer parental care showed lower CU traits, a unique relationship between differences in parental warmth and CU traits. Except for the fact that the relationship between differential parental abrasiveness and differential child aggression was stronger among low-income families, these effects were not moderated by child sex, age, or family income. The findings help us understand the role of early adverse experiences in developing CU traits. It also provides strong evidence to support the role of the environment in developing and enhancing CU traits.

The studies on the prevalence of childhood maltreatment have some common and distinct features. All studies were retrospective; many relied on the adult population, while others were based on children or adolescents. Logically, information collected from children and adolescents seems more reliable considering the time between the incidence and data collection. The tool or methods used by researchers to obtain maltreatment data are not uniform. Researchers have used some standard tools, or survey questionnaires were prepared for the study and administered personally or by telephone interviews. The most frequently used tool was the different versions of the juvenile victimization Questionnaire (JVQ) administered personally. Different terms were used to denote childhood maltreatment, adverse childhood experience, victimization, abuse, potentially traumatic experience and traumatic experience are some of them. The use of terms to indicate maltreatment appears to be guided by the tool used in the study. Most studies report the prevalence of physical, emotional and sexual abuse and peer victimization (bullying), but few report the prevalence of witnessing domestic violence or exposure to domestic violence. Most of the studies report disaggregated findings for sex and age groups. Studies to estimate

the prevalence of child maltreatment among institutionalized adolescents are limited globally and a single study was found that compared the prevalence between institutionalized and community adolescents.

Based on the review of studies focused on the prevalence and pattern of mental health among children and adolescents, the following trends and gaps in the trends were identified. Such studies include children as young as 0-18, 5-16 (school age), or 5-18 (children and adolescents). Very few such studies focused only on adolescents. National adolescent mental health surveys are available for some high-income countries but not LMICs. Studies in LMICs are mostly small-scale studies of a specific geographic area. There is no agreement on how to define mental health problems. Some studies use broader concepts such as internalizing and externalizing problems or psychosocial dysfunctions, while others are focused on specific problems like depression, specific phobia and behavior disorders. There is also diversity in the tool/s used; some have used screening tools, while others used diagnostic tools. Few studies used both as they wanted to screen and then diagnose the problem.

SDQ is the most frequently used self-report measure for screening, while CBCL is also used frequently to obtain parental or teacher information. Most such studies are based on school settings and are called community studies. Studies on institutionalized children and adolescents usually compare the mental health outcomes between institutionalization and foster care. Callous-unemotional traits are an emerging concept in the mental health field. Inventory of the callous-unemotional traits (ICU) is the most frequently used tool to measure the construct. Studies are ongoing on adapting, validating, and relating it to other relevant concepts.

Studies on mental health consequences of childhood maltreatment are focused on its long-term and short-term consequences. Very few studies were found that

examined the mental health consequences of childhood maltreatment among adolescents, most of which concentrated on studying the consequences among the adult population.

Studies to examine the relationship between child maltreatment and mental health are mainly concentrated in high-income (developed) countries. Many large-scale surveys and cohort studies based on longitudinal designs have established a definite association between the two. However, there were inconsistencies in definitions of maltreatment and mental health problems, the tools or methods used to assess them, the design of the study, the participants and the sampling methods. Studies in Asia were scant to study the association between the two. Prevalence of physical abuse, sexual abuse, emotional abuse and peer or sibling victimization were included in most of the studies. Still, indirect victimization and exposure to family violence were rarely included. Depression, anxiety, conduct disorder, and PTSD were the most reported mental health consequences. Most studies obtained information from adult participants regarding the mental health consequences of childhood maltreatment; very few included children or adolescents. Immediate or short-term effects of childhood maltreatment were not adequately studied. Residential differences, such as institutionalized or community housing, were given less priority, so few studies compared the association between the two. Previous researchers have tried to identify the role, timing, frequency, intensity and variation of maltreatment events can exert on a child.

Most studies on the association between the two also include one or more mediator or moderator variables, suggesting the association might be indirect, as the roles of such variables are found to be significant. The link between childhood maltreatment and CU traits is well established. However, most such studies rely on

data from incarnated juvenile delinquents. Researchers have also discovered two variants of young people with high CU traits. Recent research indicates a strong link between neglect and CU traits rather than abuse and CU.

2.5 Theories on Childhood Maltreatment and Mental Health

Researchers have proposed different theories to explain the relationship between childhood maltreatment and mental health. Attachment theory (Bowlby, 1969), social learning theory (Bandura, 1971) and emotion regulation model (Gross & Muñoz, 1995) are the theories and models most frequently used to explain the relationship. Researchers also suggest that some anatomical regions of the nervous and glandular systems play crucial roles in the relationship between the two. The theories, models and propositions are briefly described here.

2.5.1 Attachment Theory

Like Freud, a psychoanalyst by background, Bowlby (1907-1990) suggested that mental health and behavioral problems in later life are the outcomes of early life experiences. But unlike Freud and his ideas of personality development, Bowlby proposed an alternative model of child development based on evolutionary and ethological perspectives. He suggested that attachment is the most crucial factor for a child's healthy development.

Bowlby (1969) specified four phases of child-caregiver attachment development: pre-attachment phase (birth – 6 weeks), attachment in-making phase (6 weeks – 6-8 months), clear-cut attachment phase (6-8 months -18 months-2 years), formation of reciprocal relationship (18 months – 2 years). Extending Bowlby's attachment ideas, Ainsworth et al. (1978) suggested three attachment patterns: secure attachment, avoidant attachment and resistant attachment. A fourth attachment style, disorganized attachment, was added later by Main and Solomon (1986).

Secure attachment. Children who have formed a secure attachment feel safe, happy and eager to explore their surroundings. They are aware that they can depend on their mother to support them. They are worried about their mother's absence but are reassured that she will return. The mother's actions are predictable and considerate of her child's needs.

Anxious avoidant of insecure attachment. Children with avoidant insecurities may appear to not care about their caregivers. They might prefer to be left alone and turn down offers to play from their caregiver. Even though they do notice when their caregiver leaves them, kids with an avoidant-insecure attachment may act as if they don't. They don't usually say "hello" out loud when their caregiver comes back. These kids may not act as though they despise their caregiver, but they also don't always show them love and affection.

Anxious resistant insecure (ambivalent) attachment. Children with anxious-avoidant insecure attachments do not have faith in their mothers to meet their needs. Although they appear unconcerned by their mother's presence or absence, they are actually worried. They lack curiosity and show emotional distance. The mother's actions show that she is emotionally cut off from her child.

Disorganized/disoriented attachment. This fourth type of attachment includes children who do not fall into the other categories. These children can exhibit depressed, angry, passive, or apathetic behavior. Their mothers' behavior could range from mild to extreme, such as vacillating between passivity and aggression or acting frightened.

Researchers have examined the association between types of maltreatment experienced and the resultant type of attachment style and found similar results. For example, childhood physical abuse was found to be associated with a preoccupied

(ambivalent) attachment style, emotional abuse with a dismissing (avoidant) attachment style (Karakus, 2012), sexual abuse was found to be associated with a disorganized type of attachment (Borelli, 2020).

Researchers examining the association between attachment styles and mental health have found that a secure parent-infant relationship (secure attachment) founded on parental sensitivity and responsiveness helps the child feel safe and thus prevents mental health problems. Early researchers have pointed towards the potential of dysfunctional attachment styles to lead to internalizing and externalizing problems (Roelofs et al., 2006; Tambelli et al., 2012). An anxious-resistant attachment style has been associated with internalizing problems (Ainsworth et al., 1978; Bolger & Patterson, 2001; Crittenden & Ainsworth, 1989). Anxious, avoidant and disorganized attachment styles are associated with externalizing problems (Bacro & Macario de Medeiros, 2021; Bolger & Patterson, 2001; Forslund et al., 2020; Lee et al., 2010). Previous researchers have proposed possibilities of a broad range of mental health outcomes as a consequence of childhood maltreatment (multi-finality) or multiple pathways leading to similar manifest outcomes (equi-finality) (Cicchetti & Doyle, 2016). Muris et al. (2002) examined the relationship between attachment styles, perceived parenting and internalizing and externalizing problems among non-refereed, healthy adolescents. The findings revealed that the attachment style was related to internalizing and externalizing symptoms. Adolescents who identified as avoidantly or ambivalently attached displayed higher levels of internalizing and externalizing symptoms than adolescents who identified as securely attached.

2.5.2 Social Learning Theory

Albert Bandura's social learning theory (Bandura, 1971) places a strong emphasis on the value of observing, modeling and imitating the actions, attitudes and

feelings of others. The social learning theory considers the interaction of environmental and cognitive factors with human cognition and behavior. This theory often explains the relationship between childhood maltreatment and peer problems. Asher and Coie (1990), for example, suggested that physically maltreated children learn aggressive and coercive behavior through imitation and exhibit such behavior while dealing with their peers; children exhibiting such behaviors are likely to be rejected by their peers (Asher & Coie, 1990). The theory is also applied to explain the link between other types of maltreatment and issues in peer or social relationships.

2.5.3 Emotion Regulation Model

The concept of emotion regulation dates back to Hindu and Buddhist philosophy. They consider the inability to manage one's emotions as the source of all suffering. Later, Freud coined the term defense mechanisms as a person's attempt to manage unpleasant emotions. Similarly, the idea of stress and coping postulated the concept of emotion-focused coping mechanisms among other coping strategies. The importance of emotional regulation and its developmental precursors are relatively new research areas in psychology and mental health.

Gross (1998) defines emotion regulation as the processes by which people control the emotions they experience when they experience them and how they experience and express these emotions. Emotional regulatory processes are the most crucial factor for almost all mental health problems. Unlike inherent and universal emotions, emotion regulation is shaped by life experiences. Childhood maltreatment is one such experience that is identified as a factor with a high potential to affect one's capacity to regulate emotions.

Based on a meta-analysis, Lavi et al. (2019) reported that there are several theoretical models to explain and define the association between childhood maltreatment and emotion regulation. Attachment-based theories and theories based

on social learning are two major theories. Insecure attachment patterns and exposure to faulty role models at home were identified as factors deliberating one's emotion regulation capacity. Studies on the link between maltreatment and emotion regulation have consistently found a strong association between them (Gorgi et al., 2019; Hatkevich et al., 2021; Lavi et al., 2019).

While explaining the association between childhood maltreatment and mental health problems, previous researchers usually take the help of the attachment theory. Experiencing childhood maltreatment leads to an insecure attachment style and its variations, leading to mental health difficulties. Social learning theory is also explicitly applied to explain the link between childhood maltreatment and peer problems. Emotion dysregulation, an inability to regulate emotion effectively, is another basis for explaining the association. As theorized, a decreased capacity to regulate emotions leads to various mental health problems and childhood maltreatment through insecure attachment or social learning suppresses the ability to regulate emotions. A growing body of research has also demonstrated the role of neurobiology in the association between the two.

2.6 Conceptual Framework of the Study

An extensive literature review on the prevalence and patterns of childhood maltreatment and mental health difficulties and the relationship between childhood maltreatment and mental health problems revealed that certain socio-demographic variables, residence, sex, and age are significantly associated, and the former can predict the latter.

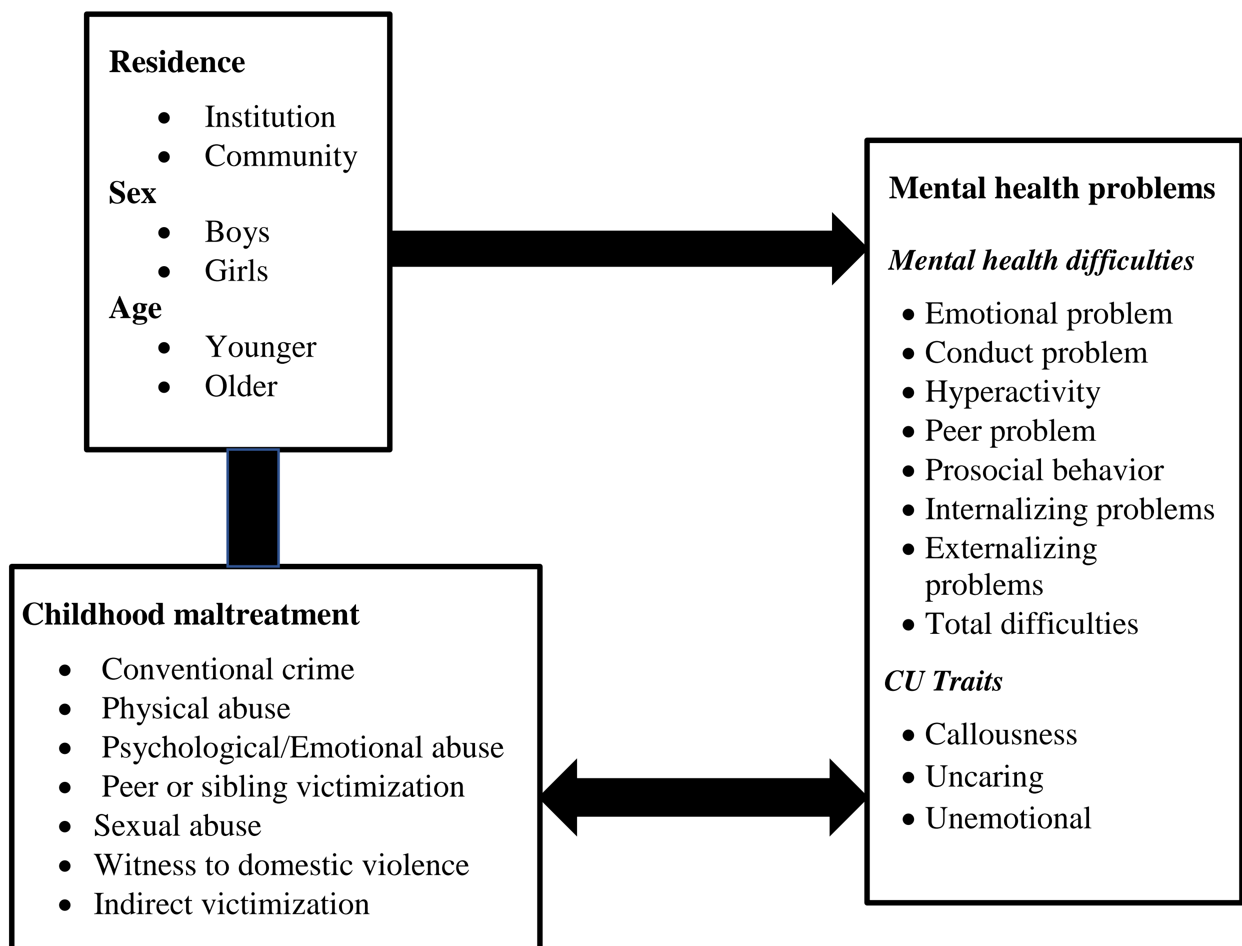
Most of the available studies that reported the prevalence of childhood maltreatment among community and institutionalized adolescents suggested a high prevalence. However, studies comparing the prevalence between community and

institutionalized adolescents are rare. Almost all previous studies had reported the pattern of childhood maltreatment in relation to age and sex. However, such studies are not consistent in terms of the nature of the association.

Additionally, the prevalence of different maltreatment types may differ for community and institutionalized adolescents. Based on the results of most of the previous studies in Nepal, many other Asian countries, LMICs, and developed countries, it was found that difference exists in the patterns of maltreatment in terms of sex and age. Still, the nature of the relationship is variable.

Figure 2.1

Conceptual Framework of the Study



Adolescents living in institutions and communities are likely to go through distinctly different life events that may contribute to the variation. So, to examine the difference in childhood maltreatment experience between institutionalized and community adolescents, which is supposed to be a precursor to mental health problems, seems meaningful. There is an abundance of studies that have explored the prevalence of mental health problems among adolescents. However, studies comparing the mental health status of institutionalized and community adolescents were rare. Previous studies on mental health problems consistently found sex and age differences. But results of the earlier studies were inconsistent regarding who has more mental health problems.

Previous studies examining the relationship between childhood maltreatment and mental health problems have consistently found a strong relationship. In contrast, many previous researchers have found that the former leads to the latter. Though childhood maltreatment influences mental health problems, the relationship between specific types of maltreatment and mental health problems varies from study to study. Therefore, in order to gain a deeper understanding of the relationship between childhood maltreatment and mental health problems, it is essential to investigate this association within the specific context of institutionalized and community adolescents. By comparing these two groups, one can shed light on the potential differences in their experiences of childhood maltreatment and the subsequent impact on their mental health.

CHAPTER III

METHODOLOGY

This chapter provides an overview of the research methodology employed in the present study. This study adopts a quantitative approach, using rigorous methods to gather and analyze numerical data. The primary objective of the study was to uncover the extent and nature of child maltreatment among adolescents in both institutional and community settings, shedding light on possible patterns that may exist. Using statistical measures, the study seeks to provide a comprehensive understanding of the prevalence and associated mental health outcomes among adolescents who have experienced maltreatment in their lives. The initial part of this chapter covers the philosophical framework that underpins the research design, guiding the approach to knowledge creation and understanding within the specific context of childhood maltreatment in Nepal. The subsequent section provides details of the research design, data collection methods, and data analysis techniques employed to address the research questions within this philosophical framework. Information on study sites, research design, response rate, data analysis, and ethical considerations is also provided.

Research philosophy influences every step of social science research, from formulating research questions to analysis of data. It helps to decide where to conduct the study and how to interpret the results. In the context of social science research, ontology refers to the study of the nature and properties of the social world, including the analysis of various entities that arise from social interaction, such as social groups. It is concerned with understanding the existence of these social entities, their characteristics, and how they are created, distinct from the individuals who comprise them. "What exists?" is the most important ontological question (Jackson, 2020). The

present study was based on a realist ontological stance, recognizing the external reality of childhood maltreatment and mental health problems experienced by institutionalized and community-based Nepali adolescents. The realist ontology facilitated an exploration of the objective structures and mechanisms influencing childhood maltreatment's prevalence and patterns, including their association, contributing to an understanding of contextual factors. In social science research, epistemology refers to the researcher's assumptions about the nature of knowledge and how it can be obtained. Influences the choice of research methods, data collection, and analysis. Epistemology is an essential aspect of research philosophy, reflecting an individual's interpretation of what constitutes knowledge and how it can be obtained within the social context. "How do we know?" is the most important question in epistemology (Jackson, 2020). The epistemological approach of the present study aligned with objectivism, stating that knowledge exists independently of the researcher and can be objectively measured.

A research paradigm is a set of accepted ideas and concepts that serve as the foundation for theories and methods. It consists of three interconnected parts: methodology, ontology, and epistemology. These three interrelated components serve as the foundation for a researcher's philosophical approach, which shapes their selection of research methods, data collection and analysis, and analysis procedures. Through the use of empirical evidence and systematic observation, the chosen positivist research philosophy underscored the importance of objective and observable aspects related to the prevalence and patterns of childhood maltreatment, as well as its potential mental health consequences. This perspective aimed to reveal universal truths about childhood maltreatment and its consequences for mental health, minimizing the impact of subjective interpretation for a more objective understanding

of the phenomenon. Additionally, axiological considerations emphasized neutrality and ethical awareness, particularly given the sensitive nature of childhood maltreatment. The researcher actively acknowledged personal values and biases while striving for objectivity, aligning with a commitment to conducting a rigorous and ethically sound investigation into the prevalence, patterns, and mental health consequences of childhood maltreatment among both institutionalized and noninstitutionalized Nepali adolescents.

A survey methodology was adopted to collect data from the respondents. The survey methodology enables the collection of self-reported data from respondents, allowing for the assessment of the exposure to childhood maltreatment, the presence of mental health problems and the association between exposure to childhood maltreatment and mental health problems. Objective data can be gathered through survey, which can then be used for both descriptive and predictive analysis to meet the study's goals.

3.1 Research Design

Based on the objectives of the study and the research paradigm embraced, a cross-sectional research design was adopted. A cross-sectional design aims to explore the association between childhood maltreatment and mental health problems among adolescents residing in institutions and the community. The study focuses on a specific population of adolescents, considering both those living in institutions and those in the community. Cross-sectional designs are commonly employed in population-based surveys to determine the prevalence of specific characteristics, which helps analyze exposure and the consequences among the participants of the study at the same time (Setia, 2016). A cross-sectional design allows for data collection at a single point in time, providing valuable insights into the prevalence and

potential relationship between childhood maltreatment and mental health problems in this specific group. Through this research design, a comprehensive understanding of the potential impact of childhood maltreatment on mental health outcomes in adolescents can be gained.

3.2 Method

Considering the research objectives and in alignment with the guiding principles of research philosophy, the researcher opted for the questionnaire method to collect data from the respondents. The goal was to obtain objective data reflecting the reality of childhood maltreatment and the experience of mental health problems while maintaining neutrality and adhering to ethical guidelines. Therefore, the questionnaire method is philosophically and technically suitable for studying the prevalence of childhood maltreatment, its pattern, and its mental health consequences, as it aligns with realist ontology and provides a robust means of data collection and analysis. The researcher considered the use of standardized questionnaires as the most effective and viable method of choice for this study. Quantitative methods also allow statistical analysis, which improves reliability and generalizability, which is essential for understanding how childhood maltreatment affects mental health across diverse populations. Quantitative data helps identify patterns and trends, illuminating the complex relationship between childhood maltreatment and mental health issues.

3.3 Study Sites

The main objective of this study was to examine the prevalence of childhood maltreatment and mental health problems among institutionalized and community adolescents. Twenty care homes housing children and adolescents up to 18 years, providing formal educational facilities (in-house or outside the house) and supporting children and adolescents until their legal age of maturity were approached. A total of

12 of 20 care homes approached provided permission for the study (Table 3.1). Child care homes (CCHs) housing small children only, children with disabilities only, care homes without educational facilities and care homes providing only transit care were not considered potential sites. As per a published report of the Central Child Welfare Board (CCWB, 2015), more than half of Child Care Homes (CCHs) were in Kathmandu Valley, 360 out of 585, where 9,968 children and adolescents were housed. According to another report published after two years, there were a total of 567 CCHs in Nepal, spread across 44 different districts, with 16,536 children residing there as of July 2017 (CCWB, 2017). CCHs in Kathmandu Valley care for orphans, runaways, street children, abandoned children, child laborers, juvenile delinquents, and sexual abuse victims.

The choice of care homes from Kathmandu Valley as the primary research site is strategically justified due to the concentration of Child Care Homes (CCHs) in this region, which accounts for more than half of all CCHs in Nepal. Furthermore, concentrating on care homes with formal educational facilities and those that support children and adolescents until they reach the legal age of maturity ensures a structured and consistent environment for data collection, improving the study's reliability and validity. The strategic selection of this research site is consistent with the primary goal of examining the prevalence of childhood maltreatment and mental health problems among institutionalized and community adolescents.

Table 3.1

Details of care homes and schools

SN	Code	Address	Institutionalized							School	Community						
			Male			Female					Male			Female			
			Younger	Older	Total	Younger	Older	Total	Total		Younger	Older	Total	Younger	Older	Total	Total
1	BBKN	Sundarijal	3	16	19	11	7	18	37	Sundarijal	3	16	19	11	7	18	37
2	BHCH*	Matatirtha	17	31	48	12	9	21	69	Matatirtha	17	31	48	12	9	21	69
3	STHC	Nakhkhu	0	0	0	7	6	13	13	Ekantakuna	0	0	0	7	6	13	13
4	STHD	Nakhkhu	5	10	15	0	0	0	15	Ekantakuna	5	10	15	0	0	0	15
5	SJOS	Jorpati	6	9	15	7	5	12	27	Jorpati	6	9	15	7	5	12	27
6	GWN*	Gothatar	7	13	20	0	0	0	20	Gothatar	7	13	20	0	0	0	20
7	TTBH	Tathali	4	8	12	0	0	0	12	Tathali	4	8	12	0	0	0	12
8	BLCH	Bagdol	11	0	11	0	0	0	11	Ekantakuna	11	0	11	0	0	0	11
9	OAGP	Chhampi	0	13	13	0	0	0	13	Jawalakhel	0	13	13	0	0	0	13
10	ODGP	Chhampi	0	0	0	13	7	20	20	Jawalakhel	0	0	0	13	7	20	20
11	VCOC*	Lubhu	3	12	15	0	0	0	15	Lubhu	3	12	15	0	0	0	15
12	SBOS	Thimi	5	28	33	7	3	10	43	Thimi	5	28	33	7	3	10	43
Total			61	140	201	57	37	94	295		61	140	201	57	37	94	295

*Has own internal school

Community adolescents were recruited from the school where the institutionalized adolescents were enrolled at. The researcher tried to match institutionalized and community adolescents regarding age, sex and grade. Four of the care homes provided internal schooling facilities, and community adolescents to match adolescents from these care homes were recruited from government schools near the institution in such cases.

3.4 Participants and Sampling

A purposive sampling technique was applied for data collection. Purposive sampling is used to identify and select samples to gather pertinent and valuable information. Its primary purpose is to identify and select cases to maximize the efficiency of limited research resources (Palinkas et al., 2005). Using their knowledge, researchers use the nonprobability purposive sampling method to select subjects that will aid the study's objectives. Researchers pre-set the characteristics of the respondents to evaluate their research questions. Or in other words, researchers carefully choose the subjects they study. A purposive sampling technique was used to

enroll the respondents in the study, as the present study required specific information from a particular subset of the population of interest. The study required the inclusion of institutionalized adolescents, and such respondents were to be recruited from care homes housing such adolescents, so purposive sampling was the most suitable sampling method to meet the objectives of the study.

Table 3.2

Details of Respondents

		Age					
		Younger		Older		Total	
Residence	Sex	*n*	%	*n*	%	*n*	%
Institution	Male	61	51.69	140	79.10	201	68.14
	Female	57	48.31	37	20.90	94	31.86
	Total	118	40	177	60	295	100
Community	Male	61	51.69	140	79.10	201	68.14
	Female	57	48.31	37	20.90	94	31.68
	Total	118	40	177	40	295	100
Total	Male	122	51.69	280	79.10	402	68.14
	Female	114	48.31	74	20.90	188	31.68

Source: Field Survey (2018, 2019)

The care home authorities identified potential adolescents from the institutions who could participate in the study. These individuals were then scheduled to meet with the researcher at a designated time and location determined by the care home authority. The researcher conducted individual or group meetings with the adolescents based on their availability.

During these meetings, the adolescents were provided with detailed information about the nature of the study and were informed about their rights and responsibilities if they chose to participate. Those who expressed their agreement to take part in the study were given a consent form. They were instructed to carefully read the form, sign it, and return it to the researcher during the next meeting, which usually coincided with the day of data collection.

For community adolescents, the researcher approached them in their classes with the assistance of the school authority. The purpose of the study, as well as the rights and responsibilities associated with participation, were explained to them. The researcher then asked if they were interested in participating. Those who indicated their willingness were provided with a consent form and asked to thoroughly read it, sign it, and return it to the researcher during their next encounter.

Data for the study were collected from 612 Nepali adolescents, out of which only 590 respondents were reported for the analysis. The respondents were aged 12 to 17 years (M Age =14.87, SD =1.68); 68.80% were boys and 31.20% were girls; 49.51% lived with their own family and 50.49% lived in institutions, 39.38% were younger and 60.62% were older adolescents. Equal numbers of respondents from the communities and institutions were taken, and a balance in the age and sex of the respondents was maintained. But there was no sex or age balance within groups. Among the community adolescents, 191 were from institutionalized adolescents' schools and 104 were from a school near the care homes. Both community and institutionalized adolescents were aged 12-17 years, who could read and write Nepali were without neurological or physical health problems. Additionally, institutional

adolescents who were currently living in Nepal and had lived in an institution for at least two years were included.

3.5 Tools

3.5.1 Sociodemographic Form

A form was developed to collect demographic information. It required information on age, sex and current residence.

3.5.2 The 12-Item Reduced-Item Youth Lifetime Version of the Juvenile Victimization Questionnaire (JVQ-R2 SSV)

The Nepali version of the 12-item reduced-item youth lifetime version of the juvenile victimization questionnaire R2 (Finkelhor et al., 2011) was adapted to study childhood maltreatment. The 12 items asked respondents if they had experienced the type of event mentioned in the item (e.g. When you were a child, did anyone hit or attack you without using an object or weapon? When you were a child, were you scared or worried because the adults in your life called you names, said mean things to you or said they didn’t want you?) during your lifetime? The 12 items were further converged into seven child maltreatment domains based on the developer’s instructions (namely Conventional crime, physical abuse, psychological or emotional abuse, peer or sibling victimization, sexual abuse, witness to domestic violence and exposure to community violence). For each item, a yes / no response format was provided, with a yes response receiving a score of one and a no response receiving a score of zero. Each respondent’s total victimization score (TVS) was calculated by adding the scores obtained on the seven items, so the TVS ranged from 0-7.
The reliability and validity of JVQ across different versions, populations and settings are encouraging (Hamby et al., 2004).

3.5.3 Strengths and Difficulties Questionnaire

This study used the Strengths and Difficulties Questionnaire (SDQ) for youth (Goodman, 1997). The SDQ consists of 25 items, each of which has three responses: not true, partly true and certainly true. Externalization and internalization are two broad categories, while hyperactivity/inattention (e.g., I am easily distracted), emotional symptoms (e.g., I worry a lot), conduct difficulties (e.g., I fight a lot), peer problems (I am usually on my own) and prosocial behavior (e.g., I often volunteer to help others) are five subscales with five items each. Negatively phrased items are scored 2 for certainly true, 1 for somewhat true and 0 for not true on all scales. The externalizing score is the sum of the conduct and hyperactivity scores and ranges from 0 to 20. The internalizing score is the sum of the emotional and peer problems scores and ranges from 0 to 20. Total difficulties are computed by combining the values of the scales except for the prosocial scale. The final result is a score that ranges from 0 to 40.

The test developers (Goodman et al., 2003) conducted Receiver Operating Characteristics analyses. They determined that the area under the curve (95% CI) was 0.77 (0.71—0.84) for conduct problems, 0.75 (0.68—0.82) for emotional symptoms, 0.68 (0.61—0.76) for peer problems, 0.65 (0.58—0.73) for prosocial behavior, and 0.65 (0.57—0.72) for hyperactivity. Additionally, the internal reliability of the self-report scales yielded the following results: 0.82 for total difficulties, 0.75 for emotional symptoms, 0.72 for conduct problems, 0.69 for hyperactivity, 0.65 for prosocial behavior, and 0.61 for peer problems, as measured by Cronbach's alpha coefficient. A recent systematic review (Kersten et al., 2016) found that the Discriminative validity of the SDQ demonstrated strong evidence, with an Area Under the Curve exceeding 0.80. Convergent validity was also supported, as indicated by weighted average correlation coefficients surpassing 0.50 for most scales (except

for the Prosocial scale). The 5-factor structural validity was confirmed. However, there was limited evidence for discriminant validity. In most studies, sensitivity fell below 70% while specificity exceeded 70.

SDQ scores fell into three categories: "normal" (range, 0–15), "borderline" (range, 16–19) and "abnormal" (range, 20–40), all denoted general psychopathology. The following abnormal scores were used for the subscales: prosocial behavior range, 0–4; conduct problems range, 5–10; peer relationship problems range, 6–10; emotional scale and hyperactivity/inattention range, 7–10. Any area with an abnormal SDQ score has a significant chance of having a clinically significant problem (Goodman, 2001). Respondents were dichotomized into 'abnormal' scoring more than the cutoff score for the total SDQ and subscales and 'normal' below the cutoff (including both normal and borderline)

Internal consistency of the SDQ and different subscales were calculated and the Cronbach α coefficient for subscales of the SDQ was satisfactory (*Mean* = .60, *SD* = .12), for total difficulties (all items excluding prosocial) and prosocial subscales was .73, for externalizing it was .62 and internalizing .70. Internal consistency for the scales of the peer problem (.48) and the conduct problem (.46) was notably low but acceptable.

3.5.4 Inventory of Callous Unemotional Traits (ICU)

A Nepali-translated version of the Inventory of Callous-Unemotional Traits (ICU) youth self-report (Essau et al., 2006) was used to measure CUT (Appendix-H). ICU consists of 24 items (e.g., I feel bad or guilty when I do something wrong; The feelings of others are unimportant to me) rated on a 4-point Likert-type scale (0 = Not at all true to 3 = Definitely true). Item numbers 1, 3, 5, 8, 13, 14, 15, 16, 17, 19, 23 and 24 are reverse scored. The total ICU score is calculated by adding the scores

obtained for all items. Scores for each subscale are calculated by adding items from the uncaring (8 items), callousness (11 items) and unemotional (5 items) subscales.

Researchers have found adequate internal consistency in the ICU, with a range of .74 –.85 for the total scale and .53–.81 for the subscales, with the Unemotional scale showing only marginal internal consistency (Ray & Frick, 2020). A cross-cultural validation study of the ICU (Feilhauer et al., 2012) found internal consistency acceptable, Cronbach's α = .71. Cronbach's alpha was 63 for the Unemotional factor. Callousness and Lack of Empathy had poor consistency .46 and.48, respectively. They also assessed the ICU's validity; the criterion and discriminant validity were acceptable.

The total CU scores within this sample yielded good internal consistency (α = .83). Three subscales are included in the measure (items, alphas for current sample): Callousness (11 items, α = .58) (e.g., I do not feel remorseful when I do something wrong), Uncaring (8 items, α = .89) (e.g., I try not to hurt others' feelings.) and Unemotional (5 items, α = .53) (e.g., I express my feelings openly). The subscales are calculated with the sum of their items and then added for a total ICU score. The percentage-based criterion was used to dichotomize respondents into high or low levels of CU traits. Respondents scoring above 66.67% in CU total or callousness, uncaring, and unemotional were considered to have high CU traits (Appendix-H).

3.5.5 Translation Process

Two of the tools, the juvenile victimization questionnaire (JVQ) and the Strength and Difficulties Questionnaire (SDQ) were translated into Nepali by a team of Nepali, including the researcher and foreign researchers (for a separate study). The items in the questionnaires were discussed first for cultural relevance; if an item was identified as culturally irrelevant, an alternative was proposed and finalized after

discussion with the foreign researchers. Once all investigators agreed, a professional translator translated the measure's instructions and original and modified items. The local Nepali researchers then performed a back translation of this, which a foreign researcher reviewed for any discrepancies with the meaning of the original English version. Any discrepancies were noted and reported to the Nepali investigators, and depending on where the discrepancy originated, they were resolved through additional or back translation. There were up to four rounds of translation and back translation for some measures. Where the scale's original authors were still alive, they offered their opinions on the cultural changes and back translations. The final Nepali version was tested for readability. The translated Nepali questionnaire version is available on the SDQ website (https://www.sdqinfo.org/py/sdqinfo/b3.py?language=Nepali). Permission to translate and use the Inventory for Callous-unemotional Traits (ICU) was sought and received from the test developer. The researcher first translated it into Nepali; the Nepali version was translated into English by a bilingual translator. Discrepancies in the original and translated versions were addressed after discussions between the researcher and the translator and the refined version was sent to the test developer. The ICU was also piloted for comprehensibility. The translated version of the test is now available from the test developer's website (https://faculty.lsu.edu/pfricklab/pdfs/icu-pdfs/icutranslations.pdf).

3.6 Serial Order of Tools

The sequence of the tests administered may have confounding effects on the response provided by the respondents. The tools were presented in a fixed series to all respondents to address this possibility. The assent form was provided and the respondent was asked to read it thoroughly and sign it at the designated place. The demographic form was placed in the first order of the arrangement. The SDQ was

presented second in the sequence, which consists of both positively and negatively worded items and ICU was the third in the sequence, which also has both positively and negatively worded statements. JVQ was presented in the last sequence, which asks about the respondent's lifetime experience of different types of maltreatment. Each questionnaire began with specific instructions for the respondent based on the original version's instructions and was modified to be as thorough as possible (Appendixes E-H).

3.7 Data Collection Procedure

The researcher identified care homes in Kathmandu Valley housing adolescents based on the record of Central Child Welfare Board (CCWB) under the Ministry of Women, Children and Social Welfare. The care home authorities of 20 such care homes were contacted, and a meeting was arranged. The researcher met them under the policies of the care homes. They were briefed on the nature, goals and objectives of the study.

Then, the community school authorities were approached with the help of the care home authorities and briefed similarly about the study. The nearby public schools were approached in the case of four care homes with in-house school facilities. In terms of age and gender, an attempt was made to match community respondents with adolescents from institutions. The principals of these schools were informed about the study and asked to allow their students meeting the inclusion criteria to participate in the study.

Care homes and schools granting permission to collect data were approached and requested an appointment. Care homes provided their halls or classrooms for data collection where adolescents were gathered, asked to sit comfortably and addressed

by the care home authority. The care home authorities also introduced the researcher and informed them about the study.

The researcher informed the adolescents about the study process, nature, aims and potential outcomes. Data collection with community adolescents took place in classrooms, halls, or the library as the school authority prescribed. Data from institutionalized adolescents were collected in the designated rooms or halls of the care homes. Respondents were approached individually during the data collection, and the researcher addressed each query and confusion regarding the statements in the questionnaire. Respondents took around 10-20 minutes to complete the task. Data collection timing was scheduled for after school for community adolescents and after school or holidays for institutionalized adolescents.

3.8 Mode of Data Collection

Data were collected through paper and pencil tests using three standardized test tools that are being used globally to study the variables of the present study. A separate demographic form was prepared to collect the respondents' demographic details. Given the required information's sensitive, delicate and emotional nature, data were not collected in group settings. The researcher collected data individually at the care home and in schools in the community.

Each respondent's queries and confusions were addressed individually by the researcher. All the respondents, care home authorities, school authorities and parents or guardians of the school children were well informed that participation in the study was voluntary.

3.9 The Time Frame of Data Collection

Data for the study were collected from April 2018 – July 2019. Various practical and technical factors took a relatively long time to collect data from a

desirable number of institutionalized respondents. The ongoing educational and extra-curricular activities, unexpected holidays and the respondents' readiness to participate in the study are a few of the factors to mention. Furthermore, data was to be collected one-on-one due to the sensitivity of the issue under investigation and respondents' concerns about the privacy of the information (specifically on the JVQ).

3.10 Response Rate

Data sets with incomplete data and unreliable or inconsistent responses were not included; around 7% of the collected data sets were excluded after scrutiny.

3.11 Data Analysis

The data collected from the respondents were coded in Microsoft Excel 2017. Excel sheets were used to calculate the reverse score of the variable, as mentioned and calculate the subscale and composite scores. Jeffreys' Amazing Statistics Program (JASP) v. 0.16.3 was used for statistical analyses.

Before performing statistical analysis, the distribution of each variable was assessed for outliers and normality and an additional case-wise analysis was run to check for outliers in each case. Cases with outliers, as identified by boxplots, were removed.

The collected data were analyzed using descriptive and predictive data analysis strategies in alignment with the study's positivist research paradigm and objectives. First, descriptive statistical analyses were performed and frequency, central tendency and dispersion measures were used to summarize the data. Frequency, proportion and population proportion confidence intervals were calculated to determine the overall prevalence of childhood maltreatment and mental health problems. The chi-square test of independence was used to find out the patterns of childhood maltreatment and mental health problems concerning sociodemographic

variables. The significance level for all statistical tests was set at 0.05 levels. As all of the chi-square tests were based on 2X2 tables and degree of freedom (df) = (column - 1) X (row-1), (2-1) X (2-1) = 1 and critical value for df 1, for significance levels 0.05 is 3.841. A chi-square value greater than 3.841 was considered significant. When one or more of the cell counts in the table were less than 5, Fisher's exact test results were reported. Independent sample t-tests were computed to find the differences in total victimization scores (TVS) between different groups. Data were analyzed using Pearson's correlations (quantitative variables) and Pearson's point biserial correlations (quantitative and dichotomous variables) to test the relationship between maltreatment experiences, mental health difficulties and CU traits. It was checked that the basic assumptions were not broken by doing preliminary analyses. In addition, the study looked at the relationships between the predictor variables.

After controlling for other maltreatment experiences and sociodemographic variables, hierarchical multiple linear regressions were run to examine the predictive capacity of each type of maltreatment experience on those same indicators. This is particularly useful for controlling confounding variables and determining whether adding additional predictors significantly improves the overall predictive power of the model.

3.12 Ethical Consideration

Permission to conduct the study was obtained from the Central Department of Psychology, Tribhuvan University. The care home authorities provided permission to collect data from institutionalized adolescents. Their main concern was the confidentiality of the information provided by the respondents and the respondents' privacy. All possible measures to maintain privacy and confidentiality were assured.

The institutionalized respondents were met at the time the care home authority provided. They were assured of privacy, confidentiality and their right to withdraw at the point of the study. They were also informed to consult the researcher if they felt any sort of distress resulting from retrieving past experiences. A form containing all this information was provided to the adolescents and whoever returned the signed informed consent form was given the packet containing all the questionnaires and a pencil. Parents of community adolescents were also given a brief notice of the study with the help of the school authority. They were also requested to notify the school administration if they did not want their children to participate in the study. School students were met in the designated places at their schools and briefed regarding the study and their rights. They were also told about ethical considerations and their rights. All study procedures were under the ethical standards of the Declaration of Helsinki of 1975 and its amendments to date.

Any identifying information was removed from the data collection sheet and a separate code for each respondent was generated and labeled. The researcher recorded the respondents' details in a different diary. The names of the care homes and schools are not disclosed as per their request to keep them confidential.

CHAPTER IV

RESULTS

The primary objective of the present study was to explore the prevalence and mental health consequences of childhood maltreatment (mental health difficulties and callous-unemotional traits) among institutionalized and community adolescents. The prevalence of childhood maltreatment was calculated on the basis of the frequency distribution. An attempt was also made to examine the relation of sociodemographic variables, types of maltreatment experienced and psychological variables (mental health difficulties and callous-unemotional traits). It also aimed to determine the predictive potential of different maltreatment experiences on mental health difficulties and characteristics of the CU traits.

The results of the study are organized into ten sections. The first section presents the demographic characteristics of the respondents. The second section demonstrates detailed results concerning childhood maltreatment and is further divided into two subsections. It shows results for the prevalence of childhood maltreatment in the total sample; the first subsection depicts the prevalence of different types of childhood maltreatment in the total population. The second subsection presents the lifetime prevalence of childhood maltreatment. The third section presents the pattern of childhood maltreatment in relation to the respondent's residence. The fourth section contains detailed findings on the sex-based pattern of childhood maltreatment among the total respondents. A subsection presents results for sex and residence-based patterns, comparing boys in the institution with boys from the community and girls from the institution with girls from the community.

The fifth section contains age-based childhood maltreatment findings for all respondents. It presents results for the prevalence of childhood maltreatment between

younger and older adolescents. A comparison is made between younger institutionalized adolescents, younger community adolescents, older institutionalized adolescents and older community adolescents.

The sixth section describes the distribution patterns of abnormal levels of different mental health difficulties. Descriptive results for the scales are presented in the forms of dispersion and frequency, percentage and confidence intervals based on population proportion for the prevalence based on cut-off scores.

The seventh section presents results for residence-based patterns of abnormal levels of mental health difficulties. A comparison of institutionalized and community adolescents in terms of different types of mental health difficulties is presented. The seventh section contains results based on sex for mental health difficulties. A subsection presents results on the sex and residence-based pattern of mental health problems where comparisons are made between institutionalized boys vs. community boys and institutionalized girls vs. community girls.

The results of the age-based pattern of mental health difficulties are presented in the ninth section. It includes findings from comparisons of younger and older adolescents with abnormal mental health difficulties. A subsection compares the residences of young and older adolescents with abnormal levels of mental health problems.

The 10th section presents results for CU traits in relation to all sociodemographic variables. The 11th, 12th and 13th sections and their subsection present results for the residence, sex and age-based pattern of CU traits.

The 14th section presents the correlation between all the study variables. The Pearson correlation between quantitative variables and the Pearson point-biserial correlation between categorical and quantitative variables are demonstrated. The 15th

and 16th sections depict the regression analysis results computed to test the predictive capacity of maltreatment on mental health and CU variables. Results for hierarchical linear regression were computed to assess the predictive capacity of childhood maltreatment on mental health difficulties presented here.

4.1 Demographic Characteristics of the Respondents

Table 3.2, Appendix A Tables I and II show the demographic characteristics of the respondents; 295 (50.00%) were from institutions and 295 (50.00%) were from the community. Of the respondents, more than half, 402 (68.14%), were boys and 188 (31.86%) were girls. In the age range, 236 (40%) were younger and 354 (60.00%) were older adolescents. More than half, 201 (68.14%) of the institutional adolescents and 201 (68.14%) of the community adolescents were boys; however, 94 (31.86%) % of the institutional adolescents and 94 (31.86%) of the community adolescents were female. In the age range, 177 (60.00%) of the institutionalized and the same number of the community adolescents were older, whereas 118 (40. 00%) of the institutionalized and the same number of the community were younger adolescents.

In terms of caste/ethnicity, nearly 30% of the institutionalized adolescents were Tamangs, followed by Brahman/Ksetri 18.31%, Dalit 11.19%, Newar 6.78%, Gurung 5.76% whereas 27.46% of the community adolescents were Brahman/Kshetris followed by 20.34% Newars, 12.20% Tamangs, 7.46% Gurungs and 7.12% Dalits.

4.2 Lifetime Prevalence of Childhood Maltreatment

Altogether, 612 adolescents participated in the study. First, the lifetime prevalence of childhood maltreatment was calculated and it was found that 22 (3.59%) of the respondents reported that they had not experienced any childhood maltreatment in their life.

Table 4.1

Types of maltreatment experienced by respondents

Types of maltreatment Experienced	*n*	*(%)*	Population Proportion CI (95%)
0 Type	22	(3.59)	[2.12, 5.07]
1 Type	28	(4.58)	[2.92, 6.23]
2 Types	34	(5.56)	[3.74, 7.37]
3 Types	50	(8.17)	[6.12, 10.63]
4 Types	105	(17.16)	[14.17, 20.14]
5 Types	142	(23.20)	[19.86, 26.55]
6 Types	186	(30.39)	[26.75, 34.04]
7 Types	45	(7.35)	[5.29, 9.42]
Any Types	590	(96.41)	[94.93, 97.88]

Source: Field Survey, 2018, 2019

The number and proportion of these respondents were too low to consider as a separate group for statistical analysis; their data were excluded from further analysis. The remaining respondents were 590 Nepali adolescents aged 12-17 years (*M Age* =14.83, *SD* =1.67).To summarize the data for the TVS variable, measures of central tendency were computed. Dispersion measures were calculated to understand the variability of scores for the TVS variable. This analysis yielded the following results. N = 590, M = 4.69, SD = 1.70. TVS scores ranged from 0-7 types of experience.

Frequency, percentage and confidence intervals were calculated based on population proportions for the types of maltreatment experienced. The vast majority of the respondents, 96.41%, reported that they had experienced at least one type of maltreatment in their lifetime and a minority of the respondents, 3.59%, experienced

no (0) maltreatment. Of the respondents, 17.16% experienced four types, 23.20% experienced five types, 30.39 % experienced six types and 8.17% experienced three types of maltreatment. Of the respondents, 7.35% reported experiencing all seven types of maltreatment.

Table 4.2

Socio-demography and lifetime prevalence of maltreatment

	Residence						
	Institution (*n*=295)		Community (*n*=295)				
	n	%	*n*	%	$\chi2$	*df*	*p*
Yes	275	93.2 %	293	99.3 %			**< .001**[*]
No	20	6.8 %	2	0.7 %			
	Sex						
	Boys (*n*=402)		Girls (*n*=188)				
	n	%	*n*	%	$\chi2$	*df*	*p*
Yes	388	96.5 %	180	95.7 %	0.21	1	0.644
No	14	3.5 %	8	4.3 %			
	Age						
	Younger (*n*=236)		Older (*n*=354)				
	n	%	*n*	%	$\chi2$	*df*	*p*
Yes	226	95.8 %	342	96.6 %	0.28	1	0.595
No	10	4.2 %	12	3.4 %			

Source: Field Survey, 2018, 2019, [*] Fisher's exact test

The lifetime prevalence of childhood maltreatment in relation to sociodemographic variables was calculated based on Pearson's chi-square test of independence (Table 4.2). The results of Fisher's exact test showed that there was a statistically significant association between residence and lifetime prevalence of childhood maltreatment. More institutionalized adolescents than community adolescents have experienced childhood maltreatment in their lifetime. No significant association was found between the lifetime prevalence of childhood maltreatment and sex and age.

4.2.1 Lifetime Prevalence of Different Types of Maltreatment

Table 4.3

Lifetime prevalence of different forms of childhood maltreatment

Types of maltreatment Experienced	*n*	%	Population proportion CI (95 %)
Conventional Crime	508	(85.67)	[82.85, 88.49]
Physical Abuse	533	(89.88)	[87.45, 92.31]
Psychological/Emotional abuse	401	(67.62)	[63.86, 71.39]
Peer or Sibling Victimization	446	(75.21)	[71.74, 78.69]
Sexual Abuse	215	(36.26)	[32.39, 40.13]
Witness to Domestic Violence	201	(33.90)	[30.09, 37.71]
Exposure to community violence	475	(80.10)	[76.89, 83.31]

Source: Field Survey, 2018, 2019

The frequency, percentage and confidence interval were calculated based on population proportions for each type of maltreatment. Table 4.3 shows the frequency of lifetime experience of specific types of maltreatment for the entire respondents.

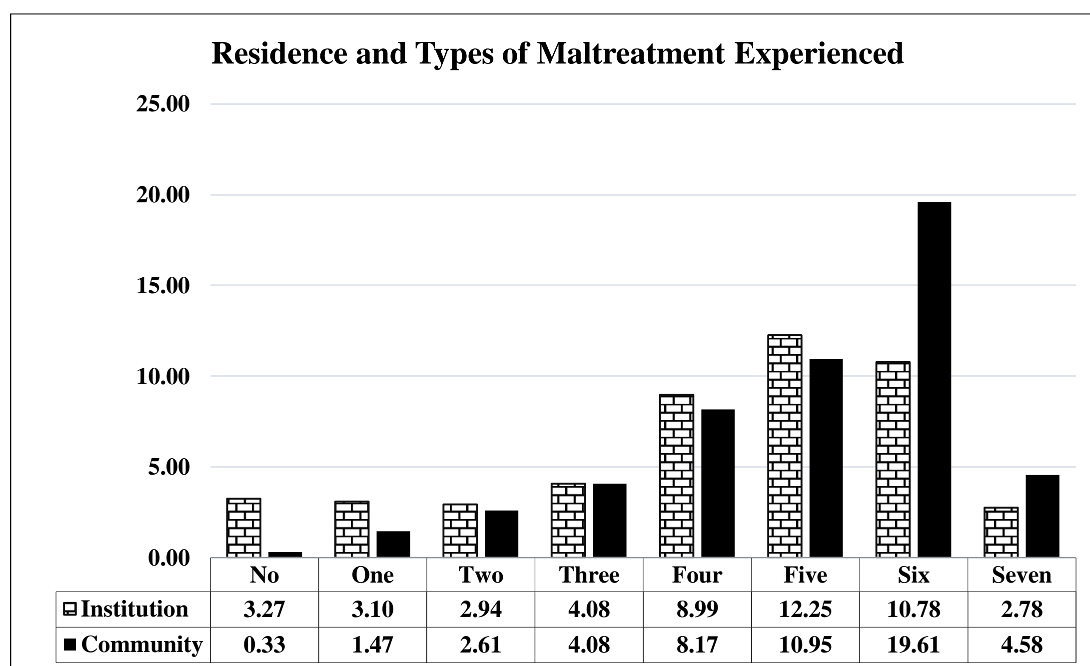
Physical abuse was the most reported form of maltreatment by the respondents (89.88%) followed by conventional crime (85.67%), community violence (80.10%),

peer or sibling victimization 75.21 % and psychological/emotional abuse 67.62 % of respondents. A 36.26 % of the respondents had experienced sexual abuse and lifetime experience of witness to domestic violence was the least reported type of maltreatment, reported by 33.90%.

4.2.2 The Pattern of Maltreatment Types in Relation to Residence

Figure 4.1

Residence and Types of Maltreatment Experienced



Source: Field Survey, 2018, 2019

The pattern of types of childhood maltreatment was explored in relation to the respondent's residence. Community adolescents reported experiencing 1, 2, 3, 4 and 5 types of maltreatment and more community adolescents reported experiencing 6 and 7 types of maltreatment. Of the respondents, 6.78% of institutionalized and 0.68% of community adolescents reported that they had not experienced any type of childhood maltreatment, whereas 40.68% of the community and 22.37% of the institutionalized adolescents had experienced six types of childhood maltreatment in their life (Figure 4.1).

4.3 The Residence-Based Pattern of Childhood Maltreatment

Table 4.4

Residence and Childhood Maltreatment

	Total Respondents (N = 590)						
	Institution (n = 295)		Community (n = 295)				
Childhood maltreatment	n	%	n	%	$\chi 2$	df	p
Conventional crime					38.61	1	**< .001**
Yes	226	76.61 %	279	94.58 %			
No	69	23.39 %	16	5.42 %			
Physical abuse					42.75	1	**< .001**
Yes	241	81.69 %	289	97.97 %			
No	54	18.31 %	6	2.03 %			
Psychological/Emotional abuse					53.33	1	**< .001**
Yes	158	53.56 %	241	81.69 %			
No	137	46.44 %	54	18.31 %			
Peer or sibling victimization					5.66	1	**0.02**
Yes	209	70.85 %	234	79.32 %			
No	86	29.15 %	61	20.68 %			
Sexual abuse					82.39	1	**< .001**
Yes	54	18.31 %	160	54.24 %			
No	241	81.69 %	135	45.76 %			
Witnesses to Domestic Violence					44.96	1	**< .001**
Yes	138	46.78 %	61	20.68 %			
No	157	53.22 %	234	79.32 %			
Exposure to community violence					20.51	1	**< .001**
Yes	214	72.54 %	258	87.46 %			
No	81	27.46 %	37	12.54 %			

Source: Field Survey, 2018, 2019

A Chi-square independence test was used to examine the relationship between childhood maltreatment and residence (institution, community). Table 4.4 shows the results for the association between types of maltreatment and residence.

A statistically significant association between residence and all types of maltreatment was found. The results show that community adolescents were more likely to experience six out of seven types of childhood maltreatment: conventional crime, physical abuse, psychological/emotional abuse, peer or sibling victimization, sexual abuse and community violence than institutionalized adolescents. In contrast, more institutionalized adolescents reported being witnesses to domestic violence than adolescents in the community.

Independent sample t-tests were performed to see if there was any difference in total victimization score (TVS) between institutionalized and community adolescents. Community adolescents experienced significantly more types of maltreatment than institutional adolescents, $p < .001$. Cohen's d (0.58) suggests that this is a medium effect (Appendix B).

4.4 The Sex-Based Pattern of Childhood Maltreatment

The independence chi-square test examined the relationship between childhood maltreatment and sex (boys, girls) for all respondents. Table 4.5 shows the association between types of maltreatment and sex.

A statistically significant association was found between sex and two types of maltreatment: sexual abuse and exposure to community violence. More boys than girls reported exposure to community violence, whereas more girls than boys reported lifetime experience of sexual abuse. No significant association was found between sex and the other types of maltreatment. Independent sample t-tests did not reveal a significant difference in TVS between boys and girls.

Table 4.5

Sex and Childhood Maltreatment

	Sex						
	Boys (n = 402)		Girls (n = 188)				
Childhood maltreatment	n	%	n	%	$\chi 2$	df	p
Conventional crime					2.22	1	.14
Yes	350	87.06 %	155	82.45 %			
No	52	12.94 %	33	17.55 %			
Physical abuse					0.01	1	.97
Yes	361	89.80 %	169	89.89 %			
No	41	10.20 %	19	10.11 %			
Psychological/emotional abuse					2.8	1	.09
Yes	263	65.42 %	136	72.34 %			
No	139	34.58 %	52	27.66 %			
Peer or sibling victimization					0.98	1	.32
Yes	297	73.88 %	146	77.66 %			
No	105	26.12 %	42	22.34 %			
Sexual abuse					19.15	1	**< .001**
Yes	122	30.35 %	92	48.94 %			
No	280	69.65 %	96	51.06 %			
Witnesses to domestic violence					0.74	1	.39
Yes	131	32.59 %	68	36.17 %			
No	271	67.41 %	120	63.83 %			
Exposure to community violence					4.31	1	**.04**
Yes	331	82.34 %	141	75.00 %			
No	71	17.66 %	47	25.00 %			

Source: Field Survey, 2018, 2019

4.4.1 Sex and Residence-Based Patterns of Childhood Maltreatment

A Pearson Chi-square of independence was calculated to determine the pattern of childhood maltreatment among boys and girls in institutions and communities. Comparisons were made between the maltreatment experiences of institutionalized boys and community boys and institutionalized girls and community girls. Table 4.6

shows the association between types of maltreatment and sex in relation to the respondent's residence.

A statistically significant association between maltreatment and sex was found among institutional and community boys and girls in six out of seven types of maltreatment. No significant association was found between sex and peer or sibling victimization. More girls reported exposure to community violence in the community than girls in institutions. Both boys and girls in the community were more likely to experience conventional crime, physical, psychological/emotional and sexual abuse, except witness to domestic violence, which more institutionalized boys and girls reported than adolescents from the community.

Table 4.6

Sex and Childhood Maltreatment in relation to Residence

Childhood maltreatment	Boys							Girls						
	Institution (n = 201)		Community (n = 201)					Institution (n = 94)		Community (n = 94)				
	n	*%*	*n*	*%*	$\chi 2$	*df*	*p*	*N*	*%*	*n*	*%*	$\chi 2$	*df*	*p*
Conventional crime					31.9	1	**< .001**					8.27	1	**< .001**
Yes	156	77.61 %	194	96.52 %				70	74.47 %	85	90.43 %			
No	45	22.39 %	7	3.48 %				24	25.53 %	9	9.57 %			
Physical abuse					22.8	1	**< .001**							**< .001***
Yes	166	82.59 %	195	97.01 %				75	79.79 %	94	100.00 %			
No	35	17.41 %	6	2.99 %				19	20.21 %	0	0.00 %			
Psychological/emotional abuse					16.7	1	**< .001**							**< .001***
Yes	112	55.72 %	151	75.12 %				46	48.94 %	90	95.74 %			
No	89	44.28 %	50	24.88 %				48	51.06 %	4	4.26 %			
Peer or sibling victimization					2.9	1	.09					3.07	1	.08
Yes	141	70.15 %	156	77.61 %				68	72.34 %	78	82.98 %			
No	60	29.85 %	45	22.39 %				26	27.66 %	16	17.02 %			
Sexual abuse					42.4	1	**< .001**					45	1	**< .001**
Yes	31	15.42 %	91	45.27 %				23	24.47 %	69	73.40 %			
No	170	84.58 %	110	54.73 %				71	75.53 %	25	26.60 %			
Witness to domestic violence					25	1	**< .001**					20.7	1	**< .001**
Yes	89	44.28 %	42	20.90 %				49	52.13 %	19	20.21 %			
No	112	55.72 %	159	79.10 %				45	47.87 %	75	79.79 %			
Exposure to community violence					3.85	1	.05					23.9	1	**< .001**
Yes	158	78.61 %	173	86.07 %				56	59.57 %	85	90.43 %			
No	43	21.39 %	28	13.93 %				38	40.43 %	9	9.57 %			

Source: Field Survey, 2018, 2019, * Fisher's exact Test

4.5 The Age-Based Pattern of Childhood Maltreatment

A Pearson Chi-square test of independence was performed on all respondent data to examine the relationship between childhood maltreatment and age (younger, older). Table 4.7 shows the association between types of maltreatment and age.

Table 4.7

Age-Based pattern of Childhood Maltreatment

	Age						
	Younger (n = 236)		Older (n = 354)				
Childhood maltreatment	n	%	n	%	$\chi 2$	df	p
Conventional crime					2.81	1	.09
Yes	195	82.63 %	310	87.57 %			
No	41	17.37 %	44	12.43 %			
Physical abuse					0.08	1	.78
Yes	213	90.25 %	317	89.55 %			
No	23	9.75 %	37	10.45 %			
Psychological emotional abuse					2.85	1	.09
Yes	169	71.61 %	230	64.97 %			
No	67	28.39 %	124	35.03 %			
Peer or sibling victimization					6.18	1	**.01**
Yes	190	80.51 %	253	71.47 %			
No	46	19.49 %	101	28.53 %			
Sexual abuse					4.7	1	**.03**
Yes	98	41.53 %	116	32.77 %			
No	138	58.47 %	238	67.23 %			
Witness to domestic violence					1.29	1	.26
Yes	86	36.44 %	113	31.92 %			
No	150	63.56 %	241	68.08 %			
Exposure to community violence					0.64	1	.42
Yes	185	78.39 %	287	81.07 %			
No	51	21.61 %	67	18.93 %			

Source: Field Survey, 2018, 2019

A statistically significant association between age and two out of seven types of maltreatment, peer or sibling victimization and sexual abuse, was found. Younger adolescents were more likely than older adolescents to report sexual abuse and victimization by peers or siblings. Conventional crime, physical abuse, being a witness to domestic violence and community violence were not significantly associated with age. There was no significant difference in the number of types of maltreatment experienced by younger or older adolescents, as revealed by the independent sample t-test.

4.5.1 Age and Residence-Based Patterns of Childhood Maltreatment

A Pearson Chi-square of independence was calculated to determine the pattern of childhood maltreatment between younger and older adolescents in institutions and the community. Comparisons between institutionalized younger adolescents and community younger adolescents, as well as institutionalized older adolescents and community older adolescents' experiences of maltreatment, were made. Table 4.8 shows the association between types of maltreatment and age in relation to the respondent's residence.

A statistically significant association was found between the residence of younger children and six of seven types of maltreatment and seven of seven types of maltreatment for older adolescents. Adolescents from the community (both younger and older) were more likely to experience conventional crime, physical abuse, psychological/emotional abuse and sexual abuse than the institutionalized adolescents. More older adolescents in the community reported experiencing peer or sibling victimization than older adolescents from institutions, but no such association was found among younger adolescents. Domestic violence was the only type of victimization experienced by more institutionalized adolescents (both younger and older) than community adolescents.

Table 4.8

Age and Child Maltreatment in relation to Residence

	Younger							Older						
	Institution (*n* = 118)		Community (*n* = 118)					Institution (*n* = 177)		Community (*n* = 177)				
Childhood maltreatment	*n*	%	*n*	%	*χ2*	*df*	*p*	*n*	%	*n*	%	*χ2*	*df*	*p*
Conventional crime					10.7	1	**<.001**					30	1	**< .001**
Yes	88	74.58 %	107	90.68 %				138	77.97 %	172	97.18 %			
No	30	25.42 %	11	9.32 %				39	22.03 %	5	2.82 %			
Physical abuse							**< .001***					22	1	**< .001**
Yes	96	81.36 %	117	99.15 %				145	81.92 %	172	97.18 %			
No	22	18.64 %	1	0.85 %				32	18.08 %	5	2.82 %			
Psychological/emotional abuse					50	1	**< .001**					14.4	1	**< .001**
Yes	60	50.85 %	109	92.37 %				98	55.37 %	132	74.58 %			
No	58	49.15 %	9	7.63 %				79	44.63 %	45	25.42 %			
Peer or sibling victimization					1.73	1	.19					4	1	.05
Yes	91	77.12 %	99	83.90 %				118	66.67 %	135	76.27 %			
No	27	22.88 %	19	16.10 %				59	33.33 %	42	23.73 %			
Sexual abuse					30.8	1	**< .001**					52.5	1	**< .001**
Yes	28	23.73 %	70	59.32 %				26	14.69 %	90	50.85 %			
No	90	76.27 %	48	40.68 %				151	85.31 %	87	49.15 %			
Witness to domestic violence					21.2	1	**< .001**					24	1	**< .001**
Yes	60	50.85 %	26	22.03 %				78	44.07 %	35	19.77 %			
No	58	49.15 %	92	77.97 %				99	55.93 %	142	80.23 %			
Exposure to community violence					18.2	1	**< .001**					5.32	1	**.02**
Yes	79	66.95 %	106	89.83 %				135	76.27 %	152	85.88 %			
No	39	33.05 %	12	10.17 %				42	23.73 %	25	14.12 %			

Source: Field Survey, 2018, 2019, *Fisher's exact test

4.6 Prevalence of Mental Health Difficulties

First, measures of central tendency were calculated to summarize the data for the SDQ variables. To better understand the variability of the scores for the SDQ variable, dispersion measures were calculated for the total SDQ and its subscale. The following are the findings of this analysis: total difficulties (*M* = 13.67, *SD* = 5.40), externalizing (*M* = 6.41, *SD* = 3.08), internalizing (*M* = 7.26, *SD* = 3.52), emotional problems (*M* = 3.89, *SD* = 2.33), peer problems (*M* = 3.38, *SD* = 1.85), conduct (*M* = 2.90, *SD* = 1.71, hyperactivity (*M* = 3.51, *SD* = 1.95), prosocial behavior (*M* = 7.92, *SD* = 1.81). For the variability of the variable ICU scores, dispersion measures for total CU and its subscales were computed. This analysis yielded the following results total CU score (*M* = 29.79, *SD* = 7.96), callousness (*M* = 9.18, *SD* = 4.81), uncaring (*M* =12.75, *SD* = 8.25), unemotional (*M* = 7.86, *SD* = 2.14). The cut-off score for the SDQ, as developed by the test developers and used globally, including previous Nepali researchers, was used to count the number of respondents reporting abnormal levels of total difficulties and SDQ subscales. The cut-off score for the callous-unemotional traits (CU) and its subscales are yet to be developed. So, the score above 66.67% of the CU and its subscales were considered high and below the point as low. The results for CU are presented separately.

The frequency, percentage and confidence interval based on population proportions were calculated for all SDQ subscales and Table 4.9 shows the results for mental health difficulties. Internalizing problems were reported by nearly two times more respondents than externalizing problems. Among the specific types of mental health difficulties, conduct problems were the most reported, followed by emotional, peer, hyperactivity and prosocial behaviors.

Table 4.9

Respondents Reporting Abnormal Levels of Mental Health Difficulties

Mental health difficulties	*n*	(%)	Population Proportion CI (%)
Emotional Problem	88	(14.92)	[12.04, 17.79]
Conduct Problem	102	(17.29)	[14.24, 20.34]
Hyperactivity	32	(5.42)	[3.60, 7.25]
Peer Problem	85	(14.41)	[10.91, 15.56]
Prosocial	5	(0.85)	[.85, 1.59]
Externalizing	37	(6.27)	[4.31, 8.23]
Internalizing	66	(11.19)	[8.64, 13.73]
Total	103	(17.46)	[14.39, 20.52]

Source: Field Survey, 2018, 2019

4.7 Residence-Based Patterns of Mental Health Difficulties

A Pearson Chi-square test of independence was performed on all respondent's data to examine the relationship between mental health difficulties and residence (institution, community). The associations between specific mental health difficulties and residence are shown in Table 4.10.

A statistically significant association was found between residence and emotional problems, peer problems, internalizing and total difficulties. Institutionalized adolescents were more likely to report abnormal mental health difficulties: total difficulties, internalizing problems, emotional problems and peer problems. No significant association with residence was found in the remaining mental health difficulties.

Table 4.10

Residence and Mental Health Difficulties

Mental health problems	Institution (*n* = 295) *n*	%	Community (*n* = 295) *n*	%	$\chi2$	*df*	*p*
Emotional problems					36.11	1	**< .001**
Abnormal	70	23.73 %	18	6.10 %			
Normal	225	76.27 %	277	93.90 %			
Conduct					1.19	1	.28
Abnormal	56	18.98 %	46	15.59 %			
Normal	239	81.02 %	249	84.41 %			
Hyperactivity/Inattention					0.53	1	.47
Abnormal	14	4.75 %	18	6.10 %			
Normal	281	95.25 %	277	93.90 %			
Peer problems					27.83	1	**< .001**
Abnormal	65	22.03 %	20	6.78 %			
Normal	230	77.97 %	275	93.22 %			
Prosocial							.37*
Abnormal	4	1.36 %	1	0.34 %			
Normal	291	98.64 %	294	99.66 %			
Externalizing					1.41	1	.23
Abnormal	22	7.46 %	15	5.08 %			
Normal	273	92.54 %	280	94.92 %			
Internalizing					49.75	1	**< .001**
Abnormal	60	20.34 %	6	2.03 %			
Normal	235	79.66 %	289	97.97 %			
Total difficulties					4.25	1	**.04**
Abnormal	61	20.68 %	42	14.24 %			
Normal	234	79.32 %	253	85.76 %			

Note: Total Respondents (*N* = 590)

Source: Field Survey, 2018, 2019, *Fisher's exact test

4.8 Sex-Based Pattern of Mental Health Difficulties

A chi-square independence test examined the differences in mental health difficulties patterns between boys and girls respondents. Table. 4.11 shows the association between sex and mental health difficulties for total respondents.

Table 4.11

Sex and Mental Health Difficulties

	Sex (N = 590)						
	Boys (n = 402)		Girls (n = 188)				
Mental health problems	n	%	n	%	$\chi 2$	df	p
Emotional problems					44.71	1	**< .001**
Abnormal	33	8.21 %	55	29.26 %			
Normal	369	91.79 %	133	70.74 %			
Conduct					4.93	1	**.03**
Abnormal	79	19.65 %	23	12.23 %			
Normal	323	80.35 %	165	87.77 %			
Hyperactivity/Inattention					1.56	1	.21
Abnormal	25	6.22 %	7	3.72 %			
Normal	377	93.78 %	181	96.28 %			
Peer problems					36.21	1	**< .001**
Abnormal	34	8.46 %	51	27.13 %			
Normal	368	91.54 %	137	72.87 %			
Prosocial							.18*
Abnormal	5	1.24 %	0	0.00 %			
Normal	397	98.76 %	188	100.00 %			
Externalizing					4.45	1	**.03**
Abnormal	31	7.71 %	6	3.19 %			
Normal	371	92.29 %	182	96.81 %			
Internalizing					48.99	1	**< .001**
Abnormal	20	4.98 %	46	24.47 %			
Normal	382	95.02 %	142	75.53 %			
Total difficulties					6.34	1	**.01**
Abnormal	81	20.15 %	22	11.70 %			
Normal	321	79.85 %	166	88.30 %			

Source: Field Survey, 2018, 2019, * Fisher's exact test

A statistically significant association was found between sex and emotional problem, conduct, peer problem, externalizing, internalizing and total difficulties. The results show a mixed distribution pattern of mental health difficulties between boys and girls. Girls were more likely to report internalizing, emotional and peer problems, whereas boys were more likely to report externalizing and conduct problems. More boys than girls reported abnormal levels of total difficulties. Hyperactivity and prosocial behavior were not significantly associated with sex.

4.8.1 Sex and Residence-based Pattern of Mental Health Difficulties

A Chi-square independence test was used to examine the relationship between sex and mental health problems among institutional and community adolescents. Table 4.12 shows the association between specific mental health problems and residence among institutionalized and community adolescents.

A statistically significant association was found between emotional problems, peer problems and internalizing among boys in institutions and communities and girls in institutions and communities. Institutionalized adolescents were more likely than community adolescents to report most mental health difficulties.

Table 4.12
Sex and Mental Health Difficulties in relation to Residence

	Boys							Girls						
	Institution (n = 201)		Community (n = 201)					Institution (n = 94)		Community (n = 94)				
Mental health problems	*n*	%	*n*	%	χ^2	*df*	*p*	*n*	%	*n*	%	χ^2	*df*	*p*
Emotional problems					7.43	1	**.01**					35.2	1	**< .001**
Abnormal	24	11.94 %	9	4.48 %				46	48.94 %	9	9.57 %			
Normal	177	88.06 %	192	95.52 %				48	51.06 %	85	90.43 %			
Conduct					2.66	1	.1					0.45	1	.5
Abnormal	46	22.89 %	33	16.42 %				10	10.64 %	13	13.83 %			
Normal	155	77.11 %	168	83.58 %				84	89.36 %	81	86.17 %			
Hyperactivity/Inattention					0.04	1	.84							.44*
Abnormal	12	5.97 %	13	6.47 %				2	2.13 %	5	5.32 %			
Normal	189	94.03 %	188	93.53 %				92	97.87 %	89	94.68 %			
Peer problems					4.63	1	**.03**					29.3	1	**< .001**
Abnormal	23	11.44 %	11	5.47 %				42	44.68 %	9	9.57 %			
Normal	178	88.56 %	190	94.53 %				52	55.32 %	85	90.43 %			
Prosocial							.37					NA		
Abnormal	4	1.99 %	1	0.50 %				0	0.00 %	0	0.00 %			
Normal	197	98.01 %	200	99.50 %				94	100.00 %	94	100.00 %			
Externalizing					1.71	1	.19							1*
Abnormal	19	9.45 %	12	5.97 %				3	3.19 %	3	3.19 %			
Normal	182	90.55 %	189	94.03 %				91	96.81 %	91	96.81 %			
Internalizing							**< .001***							**< .001***
Abnormal	18	8.96 %	2	1.00 %				42	44.68 %	4	4.26 %			
Normal	183	91.04 %	199	99.00 %				52	55.32 %	90	95.74 %			
Total difficulties					3.48	1	.06					0.82	1	.36
Abnormal	48	23.88 %	33	16.42 %				13	13.83 %	9	9.57 %			
Normal	153	76.12 %	168	83.58 %				81	86.17 %	85	90.43 %			

Source: Field Survey, 2018, 2019, * Fisher's exact test

4.9 The Age-based Pattern of Mental Health Difficulties

A Chi-square independence test investigated the relationship between age and mental health difficulties among institutional and community adolescents. The results for the association between specific mental health difficulties and age among institutionalized and community adolescents are shown in Table 4.13.

Table 4.13

Age and Mental Health Difficulties

	Age						
	Younger (n = 236)		Older (n = 354)				
Mental health problems	n	%	n	%	$\chi2$	df	p
Emotional problems					6.49	1	**.01**
Abnormal	46	19.49 %	42	11.86 %			
Normal	190	80.51 %	312	88.14 %			
Conduct					2.56	1	.11
Abnormal	48	20.34 %	54	15.25 %			
Normal	188	79.66 %	300	84.75 %			
Hyperactivity/Inattention					0.2	1	.66
Abnormal	14	5.93 %	18	5.08 %			
Normal	222	94.07 %	336	94.92 %			
Peer problems					12.89	1	**< .001**
Abnormal	49	20.76 %	36	10.17 %			
Normal	187	79.24 %	318	89.83 %			
Prosocial							1*
Abnormal	2	0.85 %	3	0.85 %			
Normal	234	99.15 %	351	99.15 %			
Externalizing					6.23	1	**.01**
Abnormal	22	9.32 %	15	4.24 %			
Normal	214	90.68 %	339	95.76 %			
Internalizing					9.56	1	**.01**
Abnormal	38	16.10 %	28	7.91 %			
Normal	198	83.90 %	326	92.09 %			
Total difficulties					0.24	1	.63
Abnormal	39	16.53 %	64	18.08 %			
Normal	197	83.47 %	290	81.92 %			

Source: Field Survey, 2018, 2019, * Fisher's exact test

A statistically significant association was found between age and emotional problems, peer problems, internalizing and externalizing. Younger adolescents were more likely to report abnormal levels of emotional problems, peer problems, internalizing and externalizing than older adolescents. No significant association between was found between age and hyperactivity, conduct, prosocial and total difficulties.

4.9.1 Age and Residence-Based Patterns of Mental Health Difficulties

A Chi-square independence test, Table 4.14, shows a statistically significant association between residence and mental health difficulties in younger and older adolescents. Significant differences were found in emotional problems, peer problems and internalizing. At the same time, a significant difference in total difficulties was found among older adolescents but not among younger adolescents from the institution and community. There were no significant differences in hyperactivity, conduct, prosocial and externalizing among younger and older adolescents in institutions and communities. Both younger and older adolescents from the institution were more likely to report abnormal levels of mental health difficulties than older adolescents.

Table 4.14

Age and Mental Health Difficulties in relation to Residence

	Younger							Older						
	Institution (*n* = 118)		Community (*n* = 118)					Institution (*n* = 177)		Community (*n* = 177)				
Mental health problems	*n*	%	*n*	%	$\chi 2$	*df*	*p*	*n*	%	*n*	%	$\chi 2$	*df*	*p*
Emotional problems					27.7	1	**< .001**					10.8	1	**< .001**
Abnormal	39	33.05 %	7	5.93 %				31	17.51 %	11	6.21 %			
Normal	79	66.95 %	111	94.07 %				146	82.49 %	166	93.79 %			
Conduct					1.67	1	.20					0.09	1	.77
Abnormal	28	23.73 %	20	16.95 %				28	15.82 %	26	14.69 %			
Normal	90	76.27 %	98	83.05 %				149	84.18 %	151	85.31 %			
Hyperactivity/Inattention					0	1	1					0.94	1	.33
Abnormal	7	5.93 %	7	5.93 %				7	3.95 %	11	6.21 %			
Normal	111	94.07 %	111	94.07 %				170	96.05 %	166	93.79 %			
Peer problems					16.1	1	**< .001**					12.4	1	**< .001**
Abnormal	37	31.36 %	12	10.17 %				28	15.82 %	8	4.52 %			
Normal	81	68.64 %	106	89.83 %				149	84.18 %	169	95.48 %			
Prosocial							.50*							1*
Abnormal	2	1.69 %	0	0.00 %				2	1.13 %	1	0.56 %			
Normal	116	98.31 %	118	100.00 %				175	98.87 %	176	99.44 %			
Externalizing					0.2	1	.65					1.74	1	.19
Abnormal	12	10.17 %	10	8.47 %				10	5.65 %	5	2.82 %			
Normal	106	89.83 %	108	91.53 %				167	94.35 %	172	97.18 %			
Internalizing							**< .001***							**< .001***
Abnormal	36	30.51 %	2	1.69 %				24	13.56 %	4	2.26 %			
Normal	82	69.49 %	116	98.31 %				153	86.44 %	173	97.74 %			
Total difficulties					0.28	1	.60					4.88	1	**.03**
Abnormal	21	17.80 %	18	15.25 %				40	22.60 %	24	13.56 %			
Normal	97	82.20 %	100	84.75 %				137	77.40 %	153	86.44 %			

Source: Field Survey, 2018, 2019, * Fisher's exact test

4.10 The Pattern of CU Traits

Among the respondents, 16.10% reported high levels of callous-unemotional traits. Nearly 30% of respondents reported high callousness and uncaring and around 15% reported high unemotional.

Table 4.15

Participants Reporting High Levels of Callous-Unemotional Traits

Callous-unemotional traits	*n*	(%)	Population Proportion CI %)
Callousness	186	(31.53)	[27.78, 35.27]
Uncaring	183	(31.02)	[25.28, 34.75]
Unemotional	90	(15.25)	[12.35, 18.16]
Total	95	(16.10)	[13.14, 19.07]

Source: Field Survey, 2018, 2019

4.11 Residence-Based Patterns of CU Traits

A significant association was found between residence and callousness, uncaring, and total CU traits. Institutionalized adolescents were significantly more likely than community adolescents to report higher callousness, uncaring and total CU. Unemotional factors and residence were not significantly associated. Table 4.16 exhibits the results for the chi-square test of independence.

Table 4.16

Residence and CU Traits

	Total Respondents (N = 590)						
	Institution (n = 295)		Community (n = 295)				
CU Traits	n	%	n	%	$\chi 2$	df	p
Callousness					15.2	1	**< .001**
High	115	38.98 %	71	24.07 %			
Low	180	61.02 %	224	75.93 %			
Uncaring					10.84	1	**< .001**
High	73	24.75 %	110	37.29 %			
Low	222	75.25 %	185	62.71 %			
Unemotional					3.36	1	.07
High	37	12.54 %	53	17.97 %			
Low	258	87.46 %	242	82.03 %			
CU Total					53.01	1	**< .001**
High	80	27.12 %	15	5.08 %			
Low	215	72.88 %	280	94.92 %			

Source: Field Survey, 2018, 2019

4.12 Sex-Based patterns of CU Traits

The independence chi-square test examined the relationship between CU traits and sex (boys, girls) for all respondents. Table 4.17 shows the association between the types of CU traits and sex.

Table 4.17

Sex-Based Patterns of CU Traits

	Sex						
	Boys (n = 402)		Girls (n = 188)				
CU Traits	*n*	%	*n*	%	$\chi 2$	*df*	*p*
Callousness					1.42	1	.23
High	133	33.08 %	53	28.19 %			
Low	269	66.92 %	135	71.81 %			
Uncaring					51.82	1	**< .001**
High	87	21.64 %	96	51.06 %			
Low	315	78.36 %	92	48.94 %			
Unemotional					0.43	1	.51
High	64	15.92 %	26	13.83 %			
Low	338	84.08 %	162	86.17 %			
CU Total					51.07	1	**< .001**
High	35	8.71 %	60	31.91 %			
Low	367	91.29 %	128	68.09 %			

Source: Field Survey, 2018, 2019

A statistically significant association was found between sex and uncaring and sex and CU total. Girls were significantly more likely than boys to report high uncaring and CU total. No statistically significant association was found between sex, callousness and unemotional traits.

4.12.1 Sex and Residence-Based Pattern of CU Traits

A Chi-square independence test was used to examine the relationship between sex and CU traits among institutional and community adolescents. Table 4.18 shows

Table 4.18

Sex-Based Patterns of CU Traits in relation to Residence

	Boys							Girls						
	Institution (n = 201)		Community (n = 201)					Institution (n = 94)		Community (n = 94)				
Callous-Unemotional traits	*n*	%	*n*	%	χ2	*df*	*p*	*n*	%	*n*	%	χ2	*df*	*p*
Callousness					5.9	1	**.01**					11.59	1	**< .001**
High	78	38.81 %	55	27.36 %				37	39.36 %	16	17.02 %			
Low	123	61.19 %	146	72.64 %				57	60.64 %	78	82.98 %			
Uncaring					6.5	1	**.01**					5.45	1	**.02**
High	33	16.42 %	54	26.87 %				40	42.55 %	56	59.57 %			
Low	168	83.58 %	147	73.13 %				54	57.45 %	38	40.43 %			
Unemotional					1.9	1	.17					1.61	1	.2
High	27	13.43 %	37	18.41 %				10	10.64 %	16	17.02 %			
Low	174	86.57 %	164	81.59 %				84	89.36 %	78	82.98 %			
CU Total					11	1	**< .001**					51.8	1	**< .001**
High	27	13.43 %	8	3.98 %				53	56.38 %	7	7.45 %			
Low	174	86.57 %	193	96.02 %				41	43.62 %	87	92.55 %			

Source: Field Survey, 2018, 2019

The association between specific CU traits and sex among institutionalized and community adolescents.

A statistically significant association between sex and callousness, uncaring and total CU traits among the community and institutionalized boys and girls was found; no such association was found for unemotional among boys and girls. Both boys and girls in the institution were more likely to report higher levels of callousness and total CU traits than boys and girls in the community, whereas both boys and girls in the community were more likely to report higher levels of uncaring than boys and girls in the institution.

4.13 Age-Based Patterns of CU Traits

The relationship between age and CU traits among institutional and community adolescents was investigated using a chi-square independence test.

Table 4.19

Age Based Pattern of CU Traits

	Age						
	Younger (n = 236)		Older (n = 354)				
Callous-Unemotional traits	*n*	%	*n*	%	$\chi 2$	*df*	*p*
Callousness					1.79	1	.18
High	67	28.39 %	119	33.62 %			
Low	169	71.61 %	235	66.38 %			
Uncaring					21.97	1	**< .001**
High	99	41.95 %	84	23.73 %			
Low	137	58.05 %	270	76.27 %			
Unemotional					0	1	1
High	36	15.25 %	54	15.25 %			
Low	200	84.75 %	300	84.75 %			
CU Total					15.11	1	**< .001**
High	55	23.31 %	40	11.30 %			
Low	181	76.69 %	314	88.70 %			

Source: Field Survey, 2018, 2019

The results of the association between the CU traits and age among institutionalized and community adolescents are shown in Table 4.19.

A statistically significant association was found between age, uncaring and total CU traits. Younger adolescents were significantly more likely than older adolescents to report high uncaring and total CU traits.

4.13.1 The Age and Residence-Based Patterns of CU Traits

A Pearson Chi-square test of independence was calculated to determine the pattern of CU traits between younger and older adolescents in institutions and the community. Comparisons between institutionalized younger adolescents and community younger adolescents, as well as institutionalized older adolescents and community older adolescents' possession of CU traits, were made. Table 4.20 shows the association between CU traits and age in relation to the respondent's residence.

A statistically significant association was found between residence and CU traits among younger adolescents. Younger adolescents in the institution were more likely than younger adolescents in the community to report high levels of callousness and total CU. Callousness, uncaring and CU total were found to be statistically significantly associated with residence among older adolescents. Older adolescents in the institution were more likely than older adolescents in the community to report higher levels of callousness and total CU. In comparison, older adolescents in the community were significantly more likely to report high levels of uncaring than older adolescents in the institution.

4.14 Correlations between Sociodemographic, Maltreatment and Mental Health Variables

Correlations were computed and analyzed to investigate the relationship between maltreatment variables and mental health difficulties. Appendix C presents

Table 4.20

Age Based Patterns of CU Traits in relation to Residence

	Younger							Older						
	Institution (n = 118)		Community (n = 118)					Institution (n = 177)		Community (n = 177)				
CUT	n	%	n	%	$\chi 2$	df	p	n	%	n	%	$\chi 2$	df	p
Callousness					6.02	1	**.01**					9.23	1	**.002**
High	42	35.59 %	25	21.19 %				73	41.24 %	46	25.99 %			
Low	76	64.41 %	93	78.81 %				104	58.76 %	131	74.01 %			
Uncaring					1.41	1	.24					12.2	1	**< .001**
High	45	38.14 %	54	45.76 %				28	15.82 %	56	31.64 %			
Low	73	61.86 %	64	54.24 %				149	84.18 %	121	68.36 %			
Unemotional					1.18	1	.28					2.19	1	**.14**
High	15	12.71 %	21	17.80 %				22	12.43 %	32	18.08 %			
Low	103	87.29 %	97	82.20 %				155	87.57 %	145	81.92 %			
CU Total					29	1	**< .001**					25.4	1	**< .001**
High	45	38.14 %	10	8.47 %				35	19.77 %	5	2.82 %			
Low	73	61.86 %	108	91.53 %				142	80.23 %	172	97.18 %			

Source: Field Survey, 2018, 2019

correlations between continuous variables (Pearson correlations) and continuous and dichotomic variables (Pearson point biserial correlations).

Point biserial correlations were calculated between sociodemographic variables and scales of mental health difficulties and CU traits. Residence correlated significantly with six out of eight mental health categories and three out of four CU traits. Age correlated significantly with seven mental health categories and all four CU traits. Sex was significantly correlated with five mental health categories and all four factors of CU traits.

The correlations between CM experiences, mental health difficulties and CU traits were examined. Of the 84 possible correlations between the eight dimensions of mental health difficulties, four dimensions of CU traits and seven childhood maltreatment experiences, it was discovered that 24 were statistically significant. Peer or sibling victimization significantly correlated with all eight dimensions of mental health difficulties. Three types of childhood maltreatment: physical abuse, psychological/emotional abuse and sexual abuse correlated significantly with seven, conventional crime with five, witnessing domestic violence with three and exposure to community violence correlated with two dimensions of mental health difficulties. Psychological/emotional abuse and sexual abuse were positively and significantly correlated with three, witness to domestic violence with two, conventional crime and physical abuse with one and peer or sibling and exposure to community violence with none of the factors of the CU traits.

All mental health difficulty subscales were statistically significantly correlated with each other (all ps $< .001$) except for the correlation between emotional problems and prosocial, which was not significant. All the factors of the CU traits correlated

significantly with each other except callousness and total CU traits. Callousness correlated negatively with uncaring and unemotional factors.

In the case of mental health difficulties and CU traits, emotional problems correlated significantly negatively with callousness and positively with total CU, conduct problems correlated significantly with total CU, Hyperactivity/inattention correlated significantly and positively with all factors of CU traits, peer problems correlated significantly and positively with uncaring and total CU, externalizing, internalizing and total difficulties correlated significantly and positively with callousness, uncaring and total CU, but not with unemotional. Prosocial, the only positive mental health attribute correlated significantly and positively with callousness and negatively with uncaring, unemotional and total CU.

4.15 Correlation between TVS and Mental Health Problems

Based on the respondent's response on the JVQ an aggregate score for their maltreatment experiences was calculated. The aggregate score, called total victimization score (TVS), reflects the number of types of maltreatment experienced by the respondent in their life, but it is not concerned with the frequency or intensity of the event.

Pearson's correlation between TVS and mental health variables from the SDQ and ICU (Appendix D) showed that it correlated significantly positively with all mental health variables and negatively with prosocial from the SDQ and all factors of callous-unemotional traits except unemotional.

4.16 Maltreatment and Mental Health Difficulties

Further, hierarchical linear regression was conducted to test the predictive capacity of each maltreatment type on mental health difficulties. Following adjustment for other experiences of maltreatment and sociodemographic variables,

hierarchical linear regression models were run to determine which experiences of childhood maltreatment were associated with mental health difficulties and CU traits separately. In Step 1, potentially confounding variables (age range, sex, residence) were included. In Step 2, each maltreatment experience (conventional crime, physical, sexual, psychological/emotional abuse, peer and community violence, witnessing domestic violence) was included. Table 4.21 presents the results of hierarchical multiple linear regression for mental health difficulties and Table 4.22 presents the results for the CU traits.

Table 4.21 *Hierarchical Linear Regression Models Predicting Mental Health Difficulties*

Model	Variables	Emotional Problems				Conduct Problems				Hyperactivity/Inattention				Peer Problems			
		B	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*
1	(Constant)	5.187	0.202	25.671	**<.001**	2.906	0.153	19.007	**.001**	3.431	0.174	19.726	**.001**	4.333	0.162	26.687	**.001**
	Residence	-.447	0.184	-2.437	**.015**	0.041	0.139	0.293	.770	0.641	0.158	4.053	**<.001**	-0.553	0.148	-3.744	**.001**
	Age	-.447	0.196	-1.664	.097	-0.489	0.148	-3.303	**.001**	-0.341	0.168	-2.027	**.043**	-0.293	0.157	-1.866	.063
	Sex	-.447	0.206	-6.347	**<.001**	0.404	0.156	2.596	**.010**	-0.068	0.177	-0.386	.700	-0.733	0.165	-4.434	**<.001**
	R^2	.092				0.023				.035				.071			
2	(Constant)	4.469	0.343	13.021	**<.001**	2.434	0.259	9.399	**.001**	2.667	0.295	9.028	**.001**	2.749	0.263	10.451	**.001**
	Residence	-0.610	0.215	-2.837	**.005**	-0.177	0.162	-1.093	.275	0.542	0.185	2.928	**.004**	-0.855	0.165	-5.188	**<.001**
	Age	-0.237	0.196	-1.208	.228	-0.428	0.148	-2.899	**.004**	-0.296	0.169	-1.756	.080	-0.223	0.150	-1.486	.138
	Sex	-1.208	0.209	-5.772	**<.001**	0.502	0.158	3.178	**.002**	-0.043	0.180	-0.239	.811	-0.651	0.160	-4.062	**<.001**
	Conventional crime	-0.297	0.341	-0.871	.384	0.070	0.257	0.273	.785	0.431	0.294	1.469	.142	0.533	0.261	2.038	**.042**
	Physical abuse	0.673	0.440	1.529	.127	-0.113	0.332	-0.339	.735	-0.015	0.379	-0.039	.969	0.232	0.337	0.689	.491
	Psychological/Emotional abuse	0.214	0.229	0.933	.351	0.459	0.173	2.652	**.008**	0.084	0.197	0.426	.670	0.326	0.176	1.855	.064
	Peer or Sibling victimization	0.520	0.249	2.089	**.037**	0.262	0.188	1.398	.163	0.542	0.214	2.530	**.012**	0.427	0.191	2.237	**.026**
	Sexual abuse	0.237	0.222	1.067	.286	0.334	0.167	1.993	**.047**	0.073	0.191	0.384	.701	0.431	0.170	2.536	**.011**
	Witness to domestic violence	0.087	0.207	0.420	.675	0.084	0.156	0.537	.592	0.179	0.178	1.004	.316	0.510	0.159	3.212	**.001**
	Exposure to community violence	-0.402	0.251	-1.603	.110	-0.171	0.189	-0.907	.365	-0.173	0.216	-0.801	.423	0.130	0.192	0.676	.500
	R^2	.120				.059				.065				.181			

Table 4.21 (Continue)

Model	Variables	Prosocial				Externalizing				Internalizing				Total Difficulties			
		B	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*
1	(Constant)	8.658	0.148	58.397	**<.001**	6.337	0.276	22.965	**<.001**	9.520	0.301	31.580	**<.001**	15.858	0.478	33.148	**<.001**
	Residence	-0.827	0.135	-6.138	**<.001**	0.681	0.251	2.717	**.007**	-1.000	0.274	-3.650	**<.001**	-0.319	0.435	-0.733	.464
	Age	0.312	0.144	2.174	**.030**	-0.831	0.267	-3.108	**.002**	-0.619	0.292	-2.120	**.034**	-1.450	0.463	-3.129	**.002**
	Sex	-0.743	0.151	-4.919	**<.001**	0.336	0.281	1.195	.233	-2.039	0.307	-6.642	**<.001**	-1.703	0.487	-3.496	**.001**
	R^2	.096				.028				.114				.051			
2	(Constant)	9.302	0.248	37.449	**<.001**	5.101	0.466	10.937	**<.001**	7.218	0.499	14.459	**.001**	12.319	0.790	15.594	**<.001**
	Residence	-0.491	0.156	-3.156	**.002**	0.365	0.292	1.248	.213	-1.465	0.313	-4.684	**<.001**	-1.101	0.495	-2.223	**.027**
	Age	0.238	0.142	1.677	.094	-0.725	0.266	-2.722	**.007**	-0.460	0.285	-1.613	.107	-1.184	0.451	-2.626	**.009**
	Sex	-0.849	0.151	-5.605	**<.001**	0.459	0.284	1.613	.107	-1.859	0.304	-6.109	**<.001**	-1.400	0.482	-2.908	**.004**
	Conventional crime	0.286	0.247	1.159	.247	0.502	0.464	1.082	.280	0.236	0.496	0.475	.635	0.737	0.785	0.939	.348
	Physical abuse	-0.155	0.318	-0.486	.627	-0.127	0.598	-0.213	.832	0.905	0.640	1.414	.158	0.778	1.013	0.768	.443
	Psychological/Emotional abuse	-0.354	0.166	-2.134	**.033**	0.543	0.312	1.742	.082	0.540	0.333	1.619	.106	1.083	0.528	2.052	**.041**
	Peer or Sibling victimization	-0.310	0.180	-1.722	.086	0.805	0.338	2.379	**.018**	0.947	0.362	2.615	**.009**	1.751	0.573	3.057	**.002**
	Sexual abuse	-0.520	0.160	-3.240	**.001**	0.407	0.301	1.350	.178	0.668	0.323	2.070	**.039**	1.075	0.510	2.105	**.036**
	Witness to domestic violence	-0.072	0.150	0.479	.632	0.263	0.281	0.934	.351	0.596	0.301	1.981	**.048**	0.859	0.476	1.803	.072
	Exposure to community violence	-0.205	0.181	-1.131	.259	-0.344	0.340	-1.011	.312	-0.272	0.364	-0.746	.456	-0.616	0.577	-1.068	.286
	R^2	.148				.068				.184				.131			

Note: Residence (Institution =0, community =1); Sex (Female =0, Male =1); Age group (12-14 =0, 15-17 =1); Conventional crime (No =0, Yes =1); Physical abuse (No =0, Yes =1); Psychological emotional abuse (No =0, Yes =1); Peer or sibling victimisation (No =0, Yes =1); Sexual abuse (No =0, Yes =1); Witnessing Domestic Violence ((No =0, Yes =1); Exposure to community violence (No =0, Yes =1); Source: Field Survey, 2018, 2019

Different types of CM were tested as predictors of mental health difficulties after controlling for potentially confounding variables. Emotional problems had a statistically significant association with peer or sibling victimization. The model explained 12% of the variance $R^2 = 0.12$, F (10, 579) = 7.925, $p < .001$. Conduct problem was statistically significantly predicted by psychological/emotional abuse and sexual abuse; the model explained almost 6% of the variance $R^2 = 0.59$, F (10, 579) = 3.638, $p < .001$. Peer or sibling victimization was the only statistically significant predictor of hyperactivity; this model explained 6.5% of the variance $R^2 = .065$, F (10, 579) = 4.055, $p < .001$. Peer or sibling victimization, sexual abuse and witness to domestic violence predicted peer problems significantly; this model explained 18% of the variance $R^2 =.181$, F (7, 589) = 12.78, $p < .001$. Psychological/emotional and sexual abuse were statistically significant (and negative)

predictors of prosocial behavior; this model explained nearly 15% of the variance R^2 = .148, F (7, 589) = 10.074, $p < .001$.

Regarding two broad subscales of mental health difficulties, after adjusting the remaining variables, peer or sibling victimization was the only type of maltreatment that was a statistically significant predictor of externalizing; the model explained nearly 7 % of the variance, $R^2 = 0.068$, F (10, 589) = 4.226, $p < 001$; peer or sibling victimization, sexual abuse and witness to domestic violence were the statistically significant predictor of internalizing problems. The model explained 18% of the variance $R^2 = 0.184$, F (10, 589) = 13.032, $p <.001$. Psychological/emotional abuse, peer or sibling victimization and sexual abuse were statistically significant predictors of the total dimension of mental health difficulties after adjusting the remaining variables. The model explained 13% of the variance, $R^2 = .131$, F (10, 589) = 8.711, $p < .001$.

4.17 Maltreatment and CU Trait

Concerning CU traits, peer or sibling victimization and sexual abuse were the statistically significant predictors of callousness (sexual abuse negatively predicted callousness); the model explained 13 % of the variance, $R^2 = .132$, F (10, 589) = 8.838, $p <.001$. The uncaring dimension of the CU traits was predicted by sexual abuse and witness to domestic violence, in which the model explained 27% of the variance, $R^2 = .203$, F (10,589) = .269, $p <.001$. None of the maltreatment experiences significantly predicted the CU trait's unemotional dimension. Sexual abuse and witness to domestic violence significantly predicted total CU. The model explained 20% of the variance, $R^2 = .205$, F (10, 589) = 8.704, $p < .001$.

Table 4.22

Hierarchical Linear Regression Models Predicting Callous-Unemotional Traits

Models	Variables	Callousness				Uncaring				Unemotional				CU Total			
		B	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*	*B*	*SE*	*t*	*p*
1	(Constant)	9.304	0.422	22.029	**<.001**	18.146	0.671	27.037	**<.001**	7.793	0.181	42.951	**<.001**	35.243	0.653	53.993	**<.001**
	Residence	-2.247	0.384	-5.855	**<.001**	1.346	0.610	2.206	**.028**	1.315	0.165	7.976	**<.001**	0.414	0.593	0.697	.486
	Age	0.569	0.409	1.392	.164	-2.647	0.650	-4.072	**<.001**	-0.158	0.176	-0.901	.368	-2.236	0.632	-3.537	**<.001**
	Sex	0.963	0.430	2.239	**.026**	-6.534	0.684	-9.560	**<.001**	-0.716	0.185	-3.874	**<.001**	-6.287	0.665	-9.458	**<.001**
	R^2	0.070				.201				0.124				.185			
2	(Constant)	9.104	0.704	12.936	**<.001**	16.797	1.108	15.166	**<.001**	7.765	0.312	24.895	**<.001**	33.666	1.112	30.270	**<.001**
	Residence	-1.525	0.441	-3.457	**.001**	0.336	0.694	0.484	.629	1.325	0.195	6.778	**<.001**	0.136	0.697	0.195	.845
	Age	0.550	0.402	1.370	.171	-2.532	0.632	-4.005	**<.001**	-0.158	0.178	-0.889	.374	-2.140	0.635	-3.371	**.001**
	Sex	0.483	0.429	1.127	.260	-5.706	0.675	-8.451	**<.001**	-0.714	0.190	-3.753	**<.001**	-5.936	0.678	-8.755	**<.001**
	Conventional crime	-0.577	0.699	-.825	.410	1.037	1.101	0.942	.347	-0.499	0.310	-1.611	.108	-0.040	1.105	-0.036	.971
	Physical abuse	0.795	0.902	.882	.378	-0.544	1.419	-0.383	.702	0.678	0.400	1.696	.090	0.929	1.425	0.652	.515
	Psychological/Emotional abuse	-0.655	0.470	-1.393	.164	0.131	0.740	0.177	.859	-0.040	0.208	-0.191	.849	-0.563	0.743	-0.758	.449
	Peer or Sibling victimization	1.174	0.510	2.301	**.022**	-1.151	0.803	-1.433	.152	-0.249	0.226	-1.101	.271	-0.226	0.806	-0.280	.780
	Sexual abuse	-2.416	0.455	-5.312	**<.001**	4.411	0.716	6.164	**<.001**	-0.021	0.202	-0.104	.917	1.975	0.719	2.748	**.006**
	Witness to domestic violence	-0.403	0.424	-.950	.342	1.888	0.668	2.827	**.005**	0.005	0.188	0.029	.977	1.490	0.671	2.222	**.027**
	Exposure to community violence	0.662	0.514	1.290	.198	-0.800	0.808	-0.990	.323	0.074	0.228	0.323	.747	-0.064	0.812	-0.079	.937
	R^2	.132				.269				.131				.205			

Note: Residence (Institution =0, community =1); Sex (Female =0, Male =1); Age group (12-14 =0, 15-17 =1); Conventional crime (No =0, Yes =1); Physical abuse (No =0, Yes =1); Psychological emotional abuse (No =0, Yes =1); Peer or sibling victimisation (No =0, Yes =1); Sexual abuse (No =0, Yes =1); Witnessing Domestic Violence ((No =0, Yes =1); Exposure to community violence (No =0, Yes =1); Source: Field Survey, 2018,2019

Conventional crime, physical abuse, psychological/emotional abuse and exposure to community violence did not significantly predict any CU traits. Peer or sibling victimization predicted one: callousness, witness to domestic violence predicted two: uncaring and CU total and sexual abuse predicted three: callousness, uncaring and CU total statistically significantly.

CHAPTER V

DISCUSSION AND CONCLUSION

The main goal of the present study was to determine the prevalence of childhood abuse among Nepali adolescents, institutionalized or living in the community, in terms of mental health difficulties and callous-unemotional traits. Furthermore, an effort was made to examine the relationships between sociodemographic, maltreatment and mental health variables.

The four sections of this chapter are the discussion, conclusions, recommendations and summary. The discussion section examines the findings considering the literature that is currently accessible. This section also includes the inferences made from the data and the integration of the results. Major conclusions about the stated objectives are postulated in the conclusion section. The study's limitations are covered in the discussion section and recommendations are in the conclusion section. There is a summary of this study in the last section.

5.1 Lifetime Prevalence of Childhood Maltreatment

A vast majority of the respondents reported lifetime prevalence of childhood maltreatment. The prevalence of childhood maltreatment was significantly higher among community adolescents when compared with adolescents in the institutions. There were no significant differences in lifetime prevalence of CM between boys and girls and younger and older adolescents.

There has not yet been an attempt to examine the overall prevalence of CM at the national level in Nepal. Studies reporting the prevalence of CM in Nepal focus on a specific group of children or particular forms of child abuse. Kohrt et al. (2010), in a study among former child soldiers, found the extent of physical abuse in the household to be as great as 100%. Participants were former child soldiers and the

form of abuse studied was physical abuse in the home. Though participants of this study represented a small fraction of Nepali adolescents, this study indicates a very high prevalence of CM in Nepal. Kandel et al. (2017) studied disciplinary acts imposed on children based on data from the Nepal Multiple Indicator Cluster Survey (NMICS); the study did not report the overall prevalence of CM in Nepal, but it indicated the high prevalence of CM in different forms or names. A cross-sectional survey among students from randomly selected schools in Kathmandu (Neupane et al., 2018) found that the lifetime prevalence of any form of child abuse was 88.88%. The results indicated a higher prevalence of child abuse. A press release (United Nations Children Fund, 2019) claimed that Nepal has one of the highest rates of violence against children worldwide and around 80% of Nepal's children experience violent discipline. The results of the present study indicate an even higher prevalence.

Studies reporting a national prevalence of CM report a varied prevalence, depending on the study's timing, methods, tools used in the survey and source of information. A study based on a nationally representative sample from the USA (Turner et al., 2010) found that 80 % of their participants had experienced at least one form of CM in their life. Whereas, (Finkelhor et al., 2015) found that the lifetime prevalence of any maltreatment was 24.9%. Both studies report survey findings in the USA in different time frames. These two studies reported a huge difference in the prevalence. Timing of research and methodological differences are some of the possible factors that may lead to such discrepancies.

In a similar study in Singapore (Subramaniam et al., 2020), the researchers found that the lifetime prevalence of childhood maltreatment in their sample was 63.9%; a survey among school-aged Chinese adolescents (Chan, 2013) found that 71% of the participants had experienced at least one type of CM in their lifetime;

another study (Liu, 2012) conducted among parents of children found the lifetime prevalence of CM was 46.9% among children, which is lower than the prevalence found in the present study. The methodological difference, i.e., the data source being self-report versus parent report, may have caused the difference in reported rates of CM in China. A population-based study to find the prevalence of maltreatment among Taiwanese adolescents (Feng et al., 2015) found that 91.3% of the participants have experienced at least one type of maltreatment in their lifetime and Tran et al. (2017) found an 83.4% prevalence among Vietnamese adolescents. Being Asian countries, Nepal, Vietnam and Taiwan share some cultural values. Higher and similar prevalences in these three countries suggest a possible connection between the prevalence of maltreatment and child-rearing practices. National-level prevalence studies in Hongkong (Chan et al., 2011), Japan (Tsuboi et al., 2015) and Israel (Lev-Wiesel et al., 2018) found that the prevalence of CM was 79.2%, 5% and 52.9 %, respectively.

The prevalence of childhood maltreatment is reported to be higher in low- and middle-income countries (LMICs). A systematic review and meta-analysis of published research from LMICs (Le et al., 2018) found that the combined prevalence of any form of CM was 76.8%. They included 30 articles from 16 LMICs, including Nepal. The prevalence of CM was even higher in war-affected countries than in non-war-affected countries. The results of the present study are consistent with the findings of the systematic review and meta-analysis.

Previous studies report both high and low prevalences for CM in American and European countries. Nearly one-third (35.1%) of the sample met the criteria of childhood maltreatment in a study among adults residing in the metropolitan Memphis, Tennessee area, USA (Scher et al., 2004). In another study (Green et al.,

2010), more than half (53.4%) of the adult participants from the USA reported having experienced at least one type of childhood maltreatment when they were a child. Jackson et al. (2016) discovered that the lifetime prevalence of any maltreatment was 84.1% in a study aimed at examining the prevalence of extrafamilial victimization among young people from a county in England (Warwickshire) in the UK. This study discounted intrafamilial experience, but the lifetime prevalence is still high and comparable to the rate found in the present study. A study in Portugal (Martins et al., 2019) found the lifetime prevalence of any form of maltreatment was 49.9%; Additionally, Mossige and Huang (2017) found that 62.5% of children in Norway have experienced CM up to the age of 17-18 years, in a similar study in Sweden lifetime experience of CM was reported by 84.1% of the participants (Aho et al., 2016). A high lifetime prevalence of any form of CM (91%) was found among Spanish adolescents (García & Ochotorena, 2017). This prevalence is higher than that reported by studies from other European countries. Despite differences in the study's time frame and location- high-income or lower and middle-income countries- tools used to measure the prevalence of maltreatment and differences in the source of information- children or caregivers- all of them mostly report a high prevalence of CM. The high prevalence of maltreatment found in the present study is consistent with studies from other countries and previous studies in Nepal.

Most studies on CM prevalence are based on community participants' data. Very few studies examined the prevalence of CM among institutionalized participants. Morantza et al. (2013), in a survey among institutionalized children in Kenya, found that 66% of the children and youth residents of the care homes had experienced maltreatment before they were admitted to the care homes. These children spent a large part of their childhood in an institution that may have protected

them from the risk of being more victimized. Dhakal et al. (2019), in a study among rescued former child laborers, found the prevalence of CM to be 72%; in a similar study among Indian ex-child laborers (Pandey et al., 2020) found 100% of the participants had experienced at least one form of CM in their lifetime. A study among children and adolescents living in care homes in Japan (Zhang et al., 2019) also found that 100% of the participants had experienced at least one type of child abuse. All participants of these studies were in institutional care at the time of the study. The findings of these previous studies support the findings of the present study.

Not a single study was found that compared the prevalence of childhood maltreatment between institutionalized and non-institutionalized adolescents, so it was not possible to compare the findings of this study with those of other studies. However, the prevalence of CM found among institutionalized adolescents in this study, previous studies, and non-institutionalized adolescents in this study and prior studies consistently suggests a high prevalence globally.

Prevalence studies of CM report a high prevalence (up to 100%), but the prevalences reported are inconsistent even within the same country. Methodological differences may explain the disparities in prevalences reported across epidemiological studies. For example, studies using convenience samples have occasionally reported higher rates of maltreatment, which may be due to sample-specific variations. Furthermore, the use of retrospective studies may have several limitations, specifically in relation to the time between the event and the time of data collection. Different studies use different tools to collect information on childhood maltreatment. Some of these instruments are brief and limited to major maltreatment acts, whereas others are detailed and cover a wide range of maltreatment and its various dimensions. One such limitation is the temporal proximity between the event's occurrence and

recall. For example, studies using retrospective self-reports about maltreatment that occurred decades ago may not be as precise as studies using self-reports from adolescents where the events occurred more recently and thus may be easier to recall (Christoffersena et al., 2013). The tool (JVQ) used in the present study is considered one of the comprehensive tools to measure different dimensions of CM; it covers most types of maltreatment events (Aho et al., 2016).

Different factors can contribute to the high prevalence of CM in Nepal. Poor knowledge of child abuse among parents can be attributed as the major causal factor behind it (Gurung & Bhattarai, 2015; Pradhan et al., 2020). Many acts listed as CM are considered desirable acts of disciplining a child in Nepal (Atteraya et al., 2018; Dhakal et al., 2019; Kandel et al., 2017; Khanal & Park, 2016; Mishra et al., 2010). Some of the JVQ's listed kinds of maltreatment are likely to be considered typical childhood occurrences. The average number of distinct types of maltreatment was on the higher end and well above the midpoint. Most respondents said they had been subjected to, four, five, or six types of abuse.

One may argue that the contributing factor to the high prevalence of CM in the current study is to be attributed to the background of the respondents. Half of the respondents lived in care homes. These adolescents were under institutional care for several reasons: runaways, abandoned, street children, homeless, orphaned, or child laborers. But more adolescents in the community than adolescents in the institutions reported lifetime experience of childhood maltreatment. These findings challenge common sense that adolescents in institutions have experienced more adverse events than adolescents in the community. Children living in their communities with their families seem more vulnerable to experiencing CM.

The more respondents, 188 (31.70%), experienced six different types of maltreatment. The high rate of co-occurrence of different types of maltreatment also supports the idea that experiencing a kind of maltreatment increases the likelihood of experiencing other types of maltreatment (Lacey & Minnis, 2020; Hecker et al., 2018; Keyes et al., 2021; Bolger & Patterson, 2001). Although the prevalence of CM reported by respondents in the current study appears to be higher, it is consistent with the prevalences reported in previous studies.

5.2 Lifetime Prevalence of Different Types of Maltreatment

CM's causes, prevalence and consequences are less researched globally. So far, there are very few studies conducted in Asian countries that examine the extent and effects of CM. Research on the prevalence and consequences of CM seems to be more concentrated in western countries (Stoltenborgh et al., 2015). Such studies are more focused on some apparent forms, such as physical abuse, neglect, sexual abuse and emotional abuse (Brown et al., 2016; Christoffersena et al., 2013) and less on exposure to community violence and exposure to domestic violence.

5.2.1 Conventional Crime

Experiencing conventional crime was reported by 85.67% of the respondents and was in the second rank in frequency in the present study. Not all previous prevalence studies report the prevalence of conventional crimes. Aho et al. (2016) found that the lifetime prevalence of conventional crime was 66.4% among Swedish adolescents; the prevalence among UK adolescents was 44.7%; among Spanish adolescents (Pereda et al., 2014) found a lifetime prevalence of 61.5%. Liu (2012) found a prevalence of 35.4% among Chinese children and adolescents, as reported by their parents. A prevalence as high as 93.9% was found among Chilean participants (Pinto-Cortez et al., 2018). Very few studies report the prevalence of conventional

crime among institutional children and adolescents. Pandey et al. (2020) found that 100% of institutionalized former child laborers have experienced conventional crimes in their lifetime. A similar study in Nepal (Dhakal et al., 2019) found a 93.2% prevalence of conventional crime among institutionalized former child laborers.

The prevalence of conventional crime found in this study and reported in many previous studies is comparable. Most of the previous studies, based on community or institutional respondents, have reported a high prevalence of conventional crime among their respondents. However, none of the studies has compared the prevalence between community and institutionalized adolescents. The shared belief regarding effective child rearing and disciplining children and insufficient knowledge regarding CM and its consequences are some of the possible contributing factors behind indiscriminately higher prevalences of conventional crime among Nepali adolescents.

5.2.2 Physical Abuse

In this study, physical abuse was the most common form of CM, with the highest prevalence (89.88%). Physical abuse, among other forms of maltreatment, is one of the earliest identified and well-explored forms of CM. Most prevalence studies on CM report the prevalence of physical abuse.

Previous studies among Nepali children and adolescents have also reported a high prevalence of physical abuse. Kohrt et al. (2010) found that all participants experienced physical abuse and 73.2% had experienced beating. The participants in this study were former child soldiers. Still, the reported rate of experiencing physical abuse by the respondents is comparable to the respondents of other children under institutional care and children in the community. Forceful measures of disciplining a child and corporal punishment in schools are still practiced in Nepal. A qualitative

study in a private school in Kathmandu (Khanal & Park, 2016) found that most parents and teachers believed that the best way to discipline children is through punishment because it instills fear in them, deters misbehavior, encourages obedience and aids in academic success. Kandel et al. (2017) studied disciplinary acts imposed on children based on the (NMICS). The most reported method of disciplining a child was exemplary behavior, that is, explanation of wrong behavior (91%), followed by screaming or yelling at the child (77%). A household member reportedly physically punished one in every two children (46%). One in every three (33%) children was spanked, hit, or slapped in the bottom with a bare hand, one in every four children was hit or slapped on the hand, arm and leg and less than 3% were severely beaten. The study reported a high prevalence of CM in Nepal. Furthermore, they also examined family members' attitudes; they found that women in the family hold a favorable attitude towards physical abuse as a suitable means for the effective upbringing of the child.

Likewise, Neupane et al. (2018) found a lifetime prevalence of physical abuse of 67.34% among public secondary school students in Kathmandu. Atteraya et al. (2018) found a prevalence of moderate physical abuse (49.8%) and severe physical abuse (21.5%). Dhakal et al. (2019), in a study of institutionalized former child laborers, found that 46.6% of the participants had experienced physical abuse in their lifetime. Morantza et al. (2013) examined the prevalence of childhood maltreatment among institutionalized adolescents in Kenya and found that physical abuse before admission was 8.2 %. The reported rate is relatively low but limited to experience before entering the care home.

According to (Finkelhor, 2011), the incidence of physical abuse declined by 48% from 1992-2006, which suggests a decrease in the rate since the 1990s. This

trend may be true for selected developed countries where the potentially harmful effects of physical abuse are identified and necessary actions are taken to control it. Contrary to the claim, studies in many high- and middle-income countries still report a high prevalence of physical abuse. A study was carried out in Sweden (Annerbäck et al., 2010) to examine the prevalence of child physical abuse and found that 15.2% of the participants have been hit in their lifetime. The results suggest that physical abuse is still prevalent in Swedish society, even after being banned in the country for over 30 years. Finkelhor et al. (2015) found that the lifetime prevalence of physical abuse among US children and adolescents was (9.8%). Feng et al. (2015) found a prevalence of physical abuse of 61.4% among Taiwanese adolescents, while (Tran et al., 2017) found a prevalence of 38.5% among Vietnamese adolescents. Large-scale surveys incorporating nationally representative samples in Saudi Arabia (Almuneef et al., 2018), Malaysia (Choo et al., 2011), Hongkong (Chan et al., 2011), Japan (Tsuboi et al., 2015) and Israel (Lev-Wiesel et al., 2018) found a prevalence of 42%, 41.6%, 45.1%, 3% and 17% respectively. Previous studies in Western and Asian countries report an inconsistent prevalence of physical abuse. If discounted for methodological differences, the prevalence in Asian countries is higher than in western countries, suggesting cultural differences are the factor behind this difference.

Previous studies in Nepal have reported a high prevalence of physical abuse among Nepali children and adolescents. However, the reported prevalence is inconsistent depending on methodological variations- the tools used, data source, and study context. Findings of the present study: the high prevalence of physical abuse among adolescents is supported by previous studies in Western countries, Asian countries and Nepal.

5.2.3 Psychological/Emotional Abuse

The fifth most frequently reported form of CM was psychological/emotional abuse. It is one of the widely studied forms of CM globally, as it is one of the first identified forms of abuse with a high potential for adverse consequences. Although there is growing agreement on the critical role of this type of maltreatment as an indicator and catalyst for other types of abuse and neglect, there is limited agreement on its description and nature. There are as many definitions as research, with little progress toward an agreed paradigm and little building on earlier work (May-Chahal & Cawson, 2005).

Previous studies in Nepal have also reported a high prevalence of emotional abuse among Nepali children and adolescents, comparable to the prevalence in the present study. However, there are some methodological issues with these studies. A study based on the 2014 NMICS (Atteraya et al., 2018) found a slightly higher prevalence of emotional abuse than found in the present study (77.3%). Neupane et al. (2018) found that the prevalence was 76.15% among school students from Kathmandu. Despite methodological differences such as the tools used for data collection, self-report vs. parental interview and other similar issues, the present study and previous studies report a similar prevalence.

Finkelhor et al. (2015) found a 14.5% prevalence of psychological/emotional abuse among US participants, lower than that of the present study and higher than many of the studies in American and European countries. A study in Spain (García & Ochotorena, 2017), reporting a high prevalence of other forms of maltreatment, found a relatively low prevalence of psychological/emotional abuse (25%). Pereda et al. (2014) found an even higher prevalence among Spanish participants (61.5%). Methodological differences are to be considered while comparing results from these

two studies from the same country. Whereas (Pinto-Cortez et al., 2018) found a 52% prevalence of emotional abuse among Chilean adolescents and young adults, slightly lower than that of the present study.

Christoffersena et al. (2013) found a lower prevalence of emotional abuse in Denmark (5.2%). The participants were 24 years old adults from 1984 birth cohorts and the low prevalence of emotional abuse suggests that the Danish people have succeeded in minimizing its occurrence. Compared to the four different forms of maltreatment studied, emotional abuse was the second most prevalent form. The prevalence of psychological abuse was found to be 4% in Japan (Tsuboi et al., 2015). The lower prevalence of psychological maltreatment in high-income countries like Denmark and Japan suggests a link between the country's economic status and CM. Asian countries, even those listed as high-income countries, still have higher rates of emotional abuse, suggesting the influence of some cultural factors such as social norms, child-rearing practices and values. A population-based study in Taiwan (Feng et al., 2015) found that the lifetime prevalence of emotional abuse was 69.2%, similar to the prevalence in the present study. Whereas (Liu, 2012) found a low lifetime prevalence (10.4%) as reported by parents of children. As this study was based on information provided by parents, the low prevalence, even lower than in some western countries, is to be considered with caution. A study based on a representative sample from Hongkong (Chan et al., 2011) found a 72% prevalence of emotional abuse. The high discrepancy in the reported rate of emotional abuse can be attributed to the data source. The victim feels emotional abuse and cannot be seen directly by others, so self-report and parent/carer reports are likely to differ substantially in reporting the prevalence.

A 52% of Saudi Arabian participants reported experiencing emotional abuse (Almuneef et al., 2018). An Arab country, Saudi Arabia differs in many cultural and religious aspects from other Asian, European and American countries. Still, the prevalence for psychological abuse is congruent with that of other countries. Vietnam, a middle-income Asian country, shares many cultural and social aspects with Nepal. A study in Vietnam (Tran et al., 2017) found a prevalence of 59.9% for psychological/emotional abuse, slightly lower than reported in the present study.

Very few studies report the prevalence of emotional abuse among institutionalized adolescents. Morantza et al. (2013) found that 27.7% of Kenyan institutionalized adolescents had experienced emotional abuse before they came to the care homes. Data were from either orphans or children separated from their parents. Participants appear to spend a sizable portion of their lives in care homes, so the reported rate does not correspond to the lifetime experience of maltreatment. A study among institutionalized former child laborers (Dhakal et al., 2019) found that the lifetime prevalence of emotional abuse was 40.77%. Though the present study and the study with former child laborers used the same tool and similar data collection methods, the latter focused on a specific group of children and adolescents. Hence, the difference in the prevalence is still considerable.

5.2.4 Peer or Sibling Victimization

Peer or sibling victimization, a child being bullied, exploited, or harmed by their peers or siblings, was the fourth most reported form of CM, with a prevalence of 75.21%. The high prevalence of this type of maltreatment among respondents suggests it is a common experience of institutionalized and community adolescents. Either there has been less effort to control it, or the applied efforts have been inefficient. Although considered a normal act by the public, this type of abuse is attracting the attention of researchers, as it is found to harm a child’s well-being.

A relatively lower prevalence of peer victimization is reported in high-income countries, specifically American and European countries, than in the present study. Based on the National Survey of Children's Exposure to Violence (NatSCEV) among US children and adolescents, Tucker et al. (2013) found that peer or sibling victimization was experienced by 37.6% of the participants in the past year. This study only examined the past year's prevalence, though it found a high prevalence. A study in the UK among 17-year-old adolescents found that peer victimization was prevalent among 43.4% of the participants. A retrospective study among Swedish young adults (Glatz et al., 2018) found a prevalence of 29% for sibling victimization and 31% for peer victimization, whereas (Aho et al., 2016) found a lifetime prevalence of 54.4% of peer or sibling victimization among Swedish adolescents. Participants of a study in Spain (García & Ochotorena, 2017) reported a similar prevalence (72.7%) to that found in the present study.

A survey among nationally representative Chilean adolescents (Pinto-cortez et al., 2021) found that more than half of the participants reported a lifetime experience of peer victimization (60.3%) as a child. Very few studies conducted in Asian or South Asian countries report the prevalence of victimization of peers or siblings. Another study (Guo et al., 2017) surveyed a large sample of Chinese adolescents from six Chinese cities and found that the prevalence of peer victimization was 42.9%, which is consistent with the findings of the studies in the US and European countries. The results showed a high prevalence of perceived peer victimization. Though the study was based on a specific group of children, rural to urban migrants, it supports the present study's finding- a high prevalence of peer or sibling victimization. A survey among Pakistani children and adolescents (Karmaliani et al., 2017) found that 90.8% of boys and 75.3% of girls had been victims of more than one occurrence of

violence in the previous four weeks. This study examined the prevalence over the past four weeks (one month) and found a high prevalence among children studying in the 6th grade. Pakistan and Nepal share many characteristics, but there are also differences. The ongoing conflict and exposure to various forms of violence are common in Pakistan but not Nepal. Poverty, lack of educational facilities and lack of general awareness regarding CM are possible shared social factors in Nepal and Pakistan. The high prevalence of peer victimization in Nepal and Pakistan can be attributed to the shared features of these south Asian countries.

5.2.5 Sexual Abuse

Sexual abuse was the sixth most frequently reported type of child abuse, with a prevalence of 36.26%. Few of the previous studies in Nepal have reported on the prevalence of sexual abuse. A survey among participants from Kathmandu (Neupane et al., 2018) found that the lifetime prevalence of sexual abuse was 12.74%. Rajbanshi (2012) studied the prevalence of child sexual abuse among schoolgirls in the Kathmandu valley and found it to be 41.3%. Dhakal et al. (2019) found a 27.2% prevalence of sexual abuse among institutionalized former child laborers from Nepal. These three studies used three different tools to examine the prevalence of CM, two of the studies were based on community samples, while the remaining one collected data from institutionalized adolescents. Despite extreme methodological differences, the present study's findings are comparable to those of previous studies in Nepal.

Finkelhor et al. (2015) found that the lifetime prevalence of sexual abuse among children and adolescents was 8.4% and Tran et al. (2017) found a lifetime prevalence in Vietnam, indicating a lower prevalence than in Nepal. A prevalence study in the UK (Jackson et al., 2016) showed a lifetime prevalence of sexual abuse of 14.6% among adolescents, slightly higher than the prevalence in the US and lower

than that in the present study. A population-based prevalence study in Taiwan (Feng et al., 2015) found that the lifetime prevalence of sexual abuse was 19.8% among adolescents, in a study among adolescents in Spain (Garca & Ochotorena, 2017) found a nearly similar lifetime prevalence (19.2%). A slightly elevated prevalence of sexual abuse (21.8%) was found among Swedish participants (Aho et al., 2016). A total of 47.4%, higher than the present study, of adolescents and young adults from Chilie (Pinto-Cortez et al., 2018) reported having experienced sexual abuse as a child. A study among rescued ex-child laborers residing in care homes in India (Pandey et al., 2020) found that the lifetime prevalence was 6.8%. A possible factor behind the lowered rate of prevalence in this study may be a gender difference; a majority, 86% of the respondents of this study, were boys. A prevalence of 2.2 % was found among Kenyan adolescents before entering the care homes (Morantza et al., 2013). Early institutionalization may have reduced the risk of sexual abuse for many of them as the chance of being sexually abused increases with age (Finkelhor et al., 2005). The prevalence of sexual abuse seems inconsistent among countries, but compared to other forms of maltreatment, it consistently appears to be one of the significant forms of maltreatment with higher prevalence.

5.2.6 Witness to Domestic Violence

It was the seventh and least frequently reported type of maltreatment by respondents in the present study. Very few previous studies reporting the prevalence of CM report the prevalence of witnesses to domestic violence. No previous studies reported the prevalence of witnessing domestic violence in Nepal.

Pinto-Cortez et al. (2018) found a 27.7 % lifetime prevalence of witnessing domestic violence in a sample of Chilean adolescents and young adults. It was one of the least reported forms of CM in the finding of the sample, supporting the findings of

the present study. Aho et al. (2016) found that the prevalence of witnessing domestic violence was 4.75% among Swedish adolescents. It was one of the least reported forms of CM, among others. A study among Israeli adolescents (Lev-Wiesel et al., 2018) found that the lifetime prevalence was 9.8%, the least reported form of CM.

It was also one of the least reported (15.3%) forms of maltreatment by Vietnamese adolescents (Tran et al., 2017). This study only reported the past year's prevalence of maltreatment, so a slightly higher lifetime prevalence can be expected. A study among Malaysian adolescents (Choo et al., 2011) found a lifetime prevalence of 10%. A study based on a parent report (Liu, 2012) found that the prevalence of witness to domestic violence was 3.38% among Chinese adolescents. The low prevalence reported in this study compared to other studies suggests parents' reluctance to disclose the event. A lower lifetime prevalence (3.55%) was found among Spanish adolescents (Pereda et al., 2014). This study examined the prevalence of six domains and 36 forms of child abuse. Many overlapping forms of CM are reported differently in the Spanish study, possibly resulting in a low prevalence of a specific form of maltreatment. Contrary to all these findings (Almuneef et al., 2018) found it was the most prevalent (57%) form of CM in a retrospective study among Saudi adults. Cultural differences leading to different societal norms and values can be attributed as the factor behind this contradictory finding.

5.2.7 Exposure to Community Violence

The third most prevalent form of maltreatment, as reported by respondents of the present study, was exposure to community violence. Exposure to violence in the community is also considered a critical form of maltreatment with potential adverse consequences, but it is one of the least studied forms of CM. According to Finkelhor, Ormrod and Turner (2007), most young people who have witnessed another person

being victimized (i.e., exposure to community violence) have also gone through multiple forms of victimization themselves. The crucial point is that direct and indirect maltreatment overlap considerably (Grubb & Bouffard, 2015). A study in Taiwan (Feng et al., 2015) found that exposure to community violence was the most prevalent form of CM (82.2%) among adolescents, which is in agreement with the present study's findings. A study in Wuhan, China (Liu, 2012) found that the lifetime prevalence of exposure to community violence was 17.7% among adolescents. This study was based on information from parents and the chances of underreporting are higher, as it also reported a lower overall prevalence of CM. Exposure to community violence was reported by 87.4% of Nepali (Dhakal et al., 2019) and 100% of Indian (Pandey et al., 2020) institutionalized former child laborers, suggesting a higher prevalence among institutionalized adolescents.

As the name suggests, exposure to community violence does not affect the victim directly, so it is likely to be less studied as a form of maltreatment. The high prevalence of exposure to community violence in the present study suggests that it is a critical concern and needs to be addressed appropriately.

5.3 Residence and Childhood Maltreatment

Children living in institutions are supposedly vulnerable to experiencing various types of adversities in their lives. In contrast, community children are at equal risk as the potential perpetrators are known people and no previous studies compared the prevalence between residents of the institutions and communities. So it was hypothesized that – *there would be a difference in the prevalence of childhood maltreatment among institutionalized and community adolescents.* The results showed that childhood maltreatment's lifetime prevalence was significantly higher among community adolescents than in institutions; hence, the first hypothesis was accepted.

An independent sample t-test also showed that community adolescents reported experiencing significantly more types of maltreatment than institutionalized adolescents.

5.3.1 Residence-Based Pattern of Childhood Maltreatment

The higher prevalence of childhood maltreatment among community adolescents than institutionalized adolescents needs further discussion in light of previous literature. No single study was available in Nepali settings that compared the prevalence of childhood maltreatment between institutionalized and community adolescents. Kandel et al. (2017) found that their parents physically punished 46% of the participant children. But the study by Dhakal et al. (2019) among rescued child laborers found that 62.7% of physical abuse was perpetrated by someone outside the family and 37.3% by someone within the family. These institutionalized respondents spent considerable time away from family, so a family member's lower perpetration rate is understandable. These findings support that family members are more likely to perpetrate maltreatment. They also found a high prevalence of childhood maltreatment among the respondents.

Previous studies have repeatedly found that parents or family members are the most frequently reported CM perpetrators. According to a recent report (U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families (2020), the majority of perpetrators (77.2%) are parents of their victims, followed by relatives (6.6%) and people with multiple relationships to the victims (4.2%). Nearly 4.0% of offenders have a "different" relationship with their victims. These findings suggest that children living with their family members are still at risk of being abused by their parents and other family members. These children are at heightened risk of conventional crimes.

Chan et al. (2011), in a survey among adolescents in Hongkong, found that 72% of the adolescents who responded to the survey said that their parents had psychologically abused them. Regarding physical punishment, 45.1% of adolescents said they had received it from their parents at some point in their lives. Parents were still the highest nominated category of perpetrators, whereas other relatives were set for 13.2% of physical abuse and 10.4% of psychological abuse cases. In their study among Malaysian adolescents, Choo et al. (2011) found that parents were the perpetrators of 39.9% of physical abuse and 14.8% of cases of psychological abuse. They also found that younger peers or relatives were nominated as perpetrators in 5.8% of physical abuse cases and 6.1% of psychological abuse cases.

Perpetrators of sexual abuse are mostly known adults within family relations (Choo et al., 2011; Jackson et al., 2016; Rajbanshi, 2012). The findings of the present study and previous studies are comparable, although there is a lack of prior studies that compare the prevalence between these two groups.

When peer and sibling victimizations are combined, they represent the aggregated prevalence for both conditions. Those who have spent a considerable portion of their lives in institutions have also been away from their siblings during that time. Therefore, the lower prevalence of victimization of siblings or peers among institutionalized adolescents is possible due to being away from home and siblings. Childcare homes in Nepal are run mainly by nongovernmental organizations (NGOs) funded by international funding agencies and the concerned government agencies monitor them. They are to abide by all child protection policies and follow child rights guidelines strictly. The child's best interests are to be ensured in such care homes and maltreatment events are rarely possible. Such care homes provide a safer environment for a homeless, runaway, or orphan child than a child experiencing neglect from parents or family members or living with perpetrators in the family.

The only maltreatment type experienced more by institutionalized adolescents than community adolescents was witness to domestic violence. Although the prevalence of domestic violence is relatively high in Nepal (Clark et al., 2019; UN Women, 2018), previous studies in Nepal on CM have not studied its prevalence. The institutionalized children spent a considerable portion of their lives in the institution. They were away from their parents or other family members. So, it can be assumed that they were less exposed to domestic violence than community adolescents. But, in contrast, the results showed the opposite direction, suggesting that a high proportion of institutionalized children had experienced domestic violence before their admission to the institution compared to community adolescents. This indicates a possibility that domestic violence leads to the institutionalization of a child. This idea is also supported by a study in Sri Lanka (De Silva & Punchihewa, 2011); domestic violence was one of the leading reasons for the institutionalization of children.

5.4 Sex, Age and Childhood Maltreatment

Studies on the relationship between sociodemographic variables and childhood maltreatment's lifetime prevalence reported mixed distribution patterns. There were inconsistencies on which group of adolescents is more likely to experience childhood maltreatment. Given the mixed patterns reported by previous studies, it was hypothesized that- *there would be sex and age differences in childhood maltreatment experiences between respondent adolescents*. Pearson’s chi-square test of independence did not find a significant association between the lifetime prevalence of childhood maltreatment and age and sex. Thus, the second hypothesis was rejected. Independent sample t-test also showed no significant difference in TVS between boys and girls and younger and older adolescents. Separate chi-square analyses of

independence were conducted to examine further the pattern of different types of maltreatment concerning demographic variables and their results are discussed separately.

5.4.1 Sex-Based Pattern of Childhood Maltreatment

Chi-square analysis showed that only 2 out of 7 types of maltreatment had a significant association with the sex of the respondents. Boys were significantly more likely to report exposure to community violence, whereas girls were significantly more likely to report incidents of sexual abuse than boys.

Previous studies comparing general maltreatment prevalence between boys and girls reported similar findings. Tran et al. (2017) in Vietnam and Feng et al. (2015) in Taiwan also found no significant difference in general maltreatment relating to sex, which supports the present study's findings. However a significant association between sex and specific types of maltreatment was observed in the present study, as in almost all previous studies.

García and Ochotorena (2017), in a study among Spanish adolescents, found that boys reported more incidents of experiencing exposure to community violence than girls (67.4% vs 63.1%). Still, girls were exposed more to domestic violence (7.1%) than boys (6.9%). This study's findings are consistent with the present study's findings that boys experience more exposure to community violence. Boys spend more time out of the house when compared with girls, which may increase the likelihood of boys witnessing community violence more than girls. Likewise, Liu (2012) found that boys experienced more exposure to community violence (18.4%) than girls (16.8%). This study was based on information provided by the parents and the full version of JVQ was used to examine the prevalence of CM. A separate tool

was also used to measure intimate partner violence (IPV), which highly overlaps with domestic violence. Despite the methodological differences, both studies support the present study's findings.

Like many previous studies, the present study found that more girls have experienced sexual abuse than boys. A review of a series of meta-analyses (Stoltenborgh et al., 2015) combined and analyzed the findings of several meta-analyses on the incidence of child sexual, physical, emotional abuse and emotional neglect, which included 244 papers and 551 prevalences for the various categories of maltreatment. They found that the prevalence of sexual abuse was 127/1,000 (76/1,000 among boys and 180/1,000 among girls). The studies included in this review were from Africa, Asia, Australia, Europe, North America and South America. Similarly, in a review article, Abbasi et al. (2015) reported a remarkable sex difference in sexual abuse- 18% for girls and 7.6% for boys experience sexual abuse as a child. They found that the prevalence of child sexual abuse was consistently higher among females than males on all continents except South America. Subramaniam et al. (2020) in Singapore, Christoffersena et al. (2013) in Denmark, Jackson et al. (2016) in the UK, Tsuboi et al. (2015) in Japan and Aho et al. (2016) in Sweden have also found the similar trend of child sexual abuse. Dhakal et al. (2019), in their study of rescued ex-child laborers, also found that more girls experienced sexual abuse (36.9%) than boys (10.5%).

Rajbanshi (2012) found a different pattern where more boys reported experiencing sexual abuse (44.7%) than girls (37.8%); this study was conducted among a small number of adolescents from a single school in the Kathmandu valley. A population-based study in Taiwan (Feng et al., 2015) found that more boys (21.8%) reported experiencing sexual abuse than girls (17.7%). A study based on parents'

reports (Liu, 2012) also found a similar trend among Chinese adolescents. Lev-Wiesel et al. (2018), among Arab adolescents in Israel, also found that boys experienced more sexual abuse than girls. A similar trend was found by Choo et al. (2011) in Malaysia, where males outnumbered females in reporting experience of sexual abuse. The authors claim that boys in Malaysian society typically have more liberty to go alone from an early age and are not as likely to have their movements and activities closely scrutinized as girls, who are more likely to be escorted and interrogated. One of the elements that may contribute to a sizable portion of the risk of sexual victimization is the increased exposure of males to external hazards. Unlike in Muslim communities, the scenario may differ in the Nepali urban setting, where both boys and girls are likely to enjoy liberty equally.

The gender difference in the experience of child sexual abuse is found to be inconsistent across countries; studies in western and high-income countries have found the girls > boys ratio, whereas studies in many Asian and low and middle-income countries have found the boys > girls ratio but the trend is not absolute. The present study found that more girls reported experiencing sexual abuse than boys, as in many previous studies. Previous researchers have proposed different explanations for the higher prevalence of sexual abuse among girls than boys, ranging from biological to social. This difference might be because men are reluctant to disclose abuse, especially since men are more likely to be perpetrators. When a man is an abuser, boys tend to take the same-sex component of the abuse more seriously (Subramaniam et al., 2020). Boys are less likely to disclose the incident of sexual victimization because of the traditional gender roles. Dorahy and Clearwater (2012) suggest that boys may be particularly troubled by feelings of guilt, shame and

confusion about their sexuality. As a result, they may be less likely to report abuse; if they do, it may take much longer. It is also plausible that women experience sexual abuse more frequently than men since males are more inclined to perpetrate it.

5.4.2 Sex And Residence-Based Patterns of Childhood Maltreatment

When comparisons were made based on sex and residence, the same pattern as in residence-based comparison was found. Boys and girls from the community were more likely to experience most childhood maltreatment than boys and girls from the institutions, except for witnesses to domestic violence.

5.4.3 Age-Based Pattern of Childhood Maltreatment

A statistically significant association between age and peer or sibling victimization and sexual abuse was found and younger adolescents were more likely than older adolescents to experience these forms of childhood maltreatment. An independent sample t-test did not find a statistically significant difference in TVS between younger and older adolescents. In the case of residence, more young adolescents in the community, both young and old, reported experiences of maltreatment than adolescents in the institutions.

Very few previous studies have reported the prevalence of CM concerning the age of the respondents and most of these studies report inconsistent findings. Martins et al. (2019) found that older Portuguese adolescents experienced more maltreatment than younger adolescents. They argue that this is to be expected, given that older children have had more opportunities to experience victimization over their lives. The present study contradicts this claim as the results showed an opposite trend. A study by Pereda et al. (2014) among Spanish adolescents found that more older adolescents reported experiencing maltreatment than younger adolescents. This difference was observed in almost all domains and subtypes of maltreatment. A study among Jewish

and Arab adolescents in Israel (Lev-Wiesel et al., 2018) also found that the older the child was in both ethnic groups, the greater abuse exposure they reported. The researchers propose that the difference is due to the common tendency to disclose maltreatment incidents lately. In a study among institutionalized ex-child laborers, Dhakal et al. (2019) found that older adolescents were more likely to report maltreatment experiences than young adolescents. However, in a similar study, Pandey et al. (2020) found that more younger adolescents reported experiencing CM than older adolescents, except for sexual abuse.

Mossige and Huang (2017) found that except for sexual abuse, the incidence of victimization in all forms and types tends to decline from childhood to adolescence. Some researchers have reported that they have not found any difference in terms of the victim's age; for example, Feng et al. (2015) did not find a difference in the experience of maltreatment concerning age and sex.

Contrary to the idea that ‘the higher the age, higher the chances of being victimized’ (Martins et al., 2019) or ‘the tendency to disclose incidences of maltreatment increases with age’ (Lev-Wiesel et al., 2018), the present study found that older adolescents when compared with younger adolescents, are less likely to experience CM. This may be due to the increasing awareness regarding distinct types of maltreatment among older adolescents, their capacity to identify the situations possible to initiate perpetration, or their capacity to confront the perpetrators. Another possible explanation is that older adolescents are relatively more independent of family and other social agencies that are commonly found to perpetrate maltreatment.

5.4.4 Age and Residence-Based Patterns of Childhood Maltreatment

When comparisons were made based on age and residence, the same pattern as in residence-based comparison was found. Younger and older adolescents from the

community were more likely to experience most childhood maltreatment than younger and older adolescents from the institutions, except for witnesses to domestic violence.

5.5 Prevalence of Mental Health Difficulties

Mental health difficulties among the respondent adolescents were measured with the help of SDQ, which provides scores on total difficulties: a composite score, externalizing and internalizing problems, two broad categories of childhood mental health difficulties and five specific subscales, including one positive attribute. Among the subscales, conduct problems had the highest prevalence, followed by emotional problems, peer problems, internalizing, externalizing, hyperactivity and problems in prosocial behavior. A composite score based on four out of the five subscales of the SDQ for total respondents was calculated. The obtained result of 103 (17.46%) respondents having beyond normal levels of mental health difficulties is in line with the claim that the prevalence of mental health disorders is around 10-20% (Chaulagain et al., 2019; Kieling et al., 2011; Srinath et al., 2010). Findings of previous studies reporting the prevalence of mental health conditions among Nepali adolescents also support the results.

A study among adolescents from Hetauda, a city in central Nepal (Bista et al., 2016), found similar results; 17.03% of the respondents had significant psychosocial problems. Sharma et al. (2019), in a cross-sectional study among adolescents from Pokhara city, found that 30% of their respondents reported experiencing mental health difficulties. The prevalence is higher than that of the present study. One possible reason behind this discrepancy is the difference in the tools used to measure the prevalence of mental health difficulties. A similar study (Chhetri et al., 2021) found that nearly 19% of the respondents were beyond the normal range of the total

difficulty score of the SDQ among adolescents from the Palpa district. Another study (Timalsina et al., 2018) found a 12.9% prevalence of mental health problems among adolescents from three schools in Kathmandu. Studies that used SDQ to measure mental health difficulty reported a prevalence comparable to the estimated global prevalence – of 20% (World Health Organization, 2003). Whereas (Jha et al., 2019), in a nationwide pilot study, found that the prevalence of mental disorders was 11.2% among children (aged 13-17). They used a diagnostic interview for data collection, and the reported prevalence results were from diagnosis, not screening.

The present study used a screening test, so the difference in the prevalence can be considered in terms of differences in the tools' objectives. Rimal and Pokharel (2013) found the prevalence of total difficulties to be 25% among 11-17-year-old children and adolescents from Biratnagar, Nepal.

A review and meta-analysis of epidemiological studies from India (Malhotra & Patra, 2014) found a 23.33 % prevalence for school-based and 6.46 for community-based studies. The differences in reported prevalences between community and school-based studies are remarkable and indicate the impact of setting. A similar prevalence based on screening instruments (19.8%) was reported by (Cortina et al., 2012) in a systematic review of studies from sub-Saharan Africa. Based on diagnostic instruments, the prevalence was slightly less (9.5%). The prevalence of child and adolescent mental health problems was reported as 22.25% in Chile (Vicente et al., 2012), 19.27 % in Taiwan (Gau et al., 2005), 12.5% in Singapore (Woo et al., 2007), 18.9% in Shri-Lanka (Perera, 2009), 17.5% in China (Li et al., 2022) and 16.5% in the USA (Whitney & Peterson, 2019). Prevalences reported by all these studies, including the present study, are within the global estimates of 10-20%.

Previous studies in Nepal have reported varying rates of prevalence of mental health difficulties among Nepali adolescents. Methodological differences are the major factors to consider as potential factors behind these differences. The tools used, the nature of respondents, the method of data collection and the context of data collection contribute to these discrepancies.

5.6 Residence and Mental Health

Few previous studies compared the prevalence of mental health difficulties between institutionalized and community adolescents, which usually report a high prevalence of mental health conditions among institutionalized respondents. However, most such studies compared the prevalence between institutionalized adolescents and adolescents in foster care. Given the uncertainty of the nature of the relationship, the third hypothesis was stated as - *there would be a difference in the prevalence of mental health problems among institutionalized and community adolescents*. The results showed that more institutionalized adolescents than community adolescents reported having abnormal levels of total difficulties than community adolescents; thus, the third hypothesis was accepted. A similar pattern was found for emotional, peer and internalizing problems. The emotionally cold environment, harsh rules and regulations, lack of attachment figure, and being away from family members are some common adverse experiences institutionalized adolescents share. Those institutionalized in their early life are more likely to develop mental health difficulties.

5.6.1 Residence-Based Patterns of Mental Health Difficulties

Most of the previous studies in Nepal have focused on the mental health of the children and adolescents from the community and very few reported on the mental health of institutionalized adolescents. No study was found that compared the pattern

of mental health difficulties between institutionalized and community adolescents in Nepal and other countries. Ojha et al. (2013), in a study among institutionalized children and adolescents from institutions in Kathmandu, found that 28.57% of institutionalized adolescents had emotional and behavioral problems and 23.01 % had diagnosable mental health problems. Among the present study's respondents, 20.68% of institutionalized adolescents reported experiencing mental health difficulties, which is congruent with the previous study's findings. Relatively lower 14.24% of the community adolescents reported mental health difficulties in the current study, similar to earlier studies in Nepal among community children and adolescents. Mahat (2007) also found a similar prevalence (14.74%) among community adolescents.

Ford et al. (2007) found that compared to the most socioeconomically disadvantaged children living in private homes, British children who were looked after by the local authority had a higher prevalence of psychosocial adversity and psychiatric disorders. A study in Rwanda (Nsabimana et al., 2019) also found equivalent results where institutionalized children outnumbered never-institutionalized children in externalizing problems. However, no significant difference was found in externalizing problems between institutionalized and community adolescents in the present study. They differed significantly in internalizing problems, its subscales: emotional and, peer problems and total difficulties.

The higher prevalence of mental health difficulties among the institutionalized adolescents in the present study and previous studies can be explained with respect to the typical environment of the institutions they live in. Studies on the effects of institutionalization on children have consistently raised the issue of attachment. Underdeveloped or undeveloped attachment may have various mental health

consequences at the early stages of life. A study among Romanian children (Bos et al., 2011) found that institutionalized Romanian children had problems with all attachment types compared to never-institutionalized children. A follow-up study at age 12 (Humphreys et al., 2015) found that when results from children who had never been institutionalized were compared to those from children who had ever been institutionalized, group status had a substantial impact on all symptom domains of mental health problems. More internalizing, externalizing and ADHD symptoms were seen in children who had ever been institutionalized than in those who had never been institutionalized. Children in institutions are deprived of many social requirements and attachment is identified as one of the most crucial factors.

Various psychological factors have been identified as contributors to mental health difficulties; emotion regulation - one’s ability to employ control over one's own emotional state is one of the most considered factors. Previous studies have consistently reported that institutionalization hampers one’s emotion regulation capacity (Batki, 2018; Mishra & Tung, 2018; Sanchis-Sanchis et al., 2020; Sousa et al., 2021) and lower level of emotion regulation capacity leads to various forms of mental health difficulties (Chervonsky & Hunt, 2019; Gouveia et al., 2022; Hu et al., 2014; Phillips et al., 2006; Yeung et al., 2011).

5.7 Sex, Age and Mental Health Difficulties

Based on previous studies on the prevalence of mental health problems among Nepali adolescents, it was found that the prevalence of mental health differs. Still, such differences are inconsistent regarding sex and age-based patterns. So, it was hypothesized that- *there would be sex and age differences in mental health problems between respondent adolescents*. The results showed that more boys than girls experienced total mental health difficulties and there was no significant association

between age and total mental health difficulties, resulting in no difference between younger and older adolescents. Thus, the fourth hypothesis was rejected. Separate chi-square analyses of independence were conducted to examine further the pattern of different types of maltreatment concerning demographic variables and their results are discussed separately.

5.7.1 The Sex-Based Pattern of Mental Health Difficulties

No significant association between sex and prosocial and hyperactivity was found in the present study. Gender differences were evident in the case of other specific types of mental health difficulties. Significantly more boys than girls reported abnormal levels of mental health difficulties in three out of eight subscales of the SDQ: conduct problems, externalizing problems and total difficulties and more girls than boys reported abnormal levels of emotional problems, peer problems and internalizing problems, which is consistent with findings of previous studies. Recent studies in Nepal reporting the prevalence of mental health problems among Nepali adolescents have also reported mixed findings (Chhetri et al., 2021; Bista et al., 2016). Jha et al. (2019) found that girls (aged 13-17) had more psychological disorders than boys; additionally, Adhikari et al. (2017) among children and adolescents (aged 10-19) found that more girls than boys were experiencing psychosocial problems. In contrast, Sharma et al. (2019) found that boys were 2.1 times more likely to have mental health difficulties than girls. An earlier study (Sharma et al., 2013) found that boys (from government schools) reported the highest stress levels than any other group of adolescents.

Findings regarding sex differences in mental health problems are not uniform across previous studies from other countries. A systematic analysis (Cortina et al., 2012) found that the prevalence was slightly higher for boys than girls (12.5 vs

12.3%); Vicente et al. (2012) in Chile found the prevalence was higher among girls (25.8%) than boys (19.3%). Differences in the prevalence of specific disorders relating to sex were reported but not for general mental health problems (Gau et al., 2005) in the study in Taiwan. A survey in Shri-Lanka (Perera, 2009) found boys > girls ratio in a nationally representative sample of adolescents.

More boys reporting problems in some mental health problems than girls can be explained in terms of various social, cultural and psychological factors. One widely accepted explanation for such gender differences is based on the emotion regulation theory (Gross & Muñoz, 1995). Previous researchers have consistently found differences in emotion regulation capacity between boys and girls. Girls are better at utilizing emotion regulation resources than boys, resulting in better emotion regulation capacity (Gardener et al., 2020; Goubet & Chrysikou, 2019; Kaur et al., 2022; McRae et al., 2008; Nolen-Hoeksema, 2012; Sanchis-Sanchis et al., 2020). Boys are supposed to be emotionally strong and capable of hiding negative emotions, whereas girls are supposed to be emotionally expressive (specifically in negative emotions) in Nepali society.

In the present study, significantly more adolescents in the institutions reported abnormal levels of emotional, peer and internalizing problems. This suggests that not only sex but the respondent's residence is also detrimental to mental health difficulties, at least for internalizing problems.

5.7.2 Sex and Residence-Based Patterns of Mental Health Difficulties

When comparisons were made based on sex and residence, the same pattern as in residence-based comparison was found. Adolescents from the institution were more likely to report abnormal levels of mental health difficulties: emotional problems, peer problems and internalizing problems than boys and girls from the institutions.

5.7.3 The Age-Based Pattern of Mental Health Difficulties

Significantly more younger adolescents reported abnormal levels of emotional, peer, externalizing and internalizing problems. No significant association was found between age, conduct, hyperactivity, prosocial and total difficulties. Previous research in Nepal has found varied trends in age and the prevalence of mental health problems. Bista et al. (2016), (Adhikari et al., 2017), Timalsina et al. (2018) and (Jha et al., 2019) found that more older adolescents reported experiencing mental health problems, whereas (Chhetri et al., 2021) found that more younger adolescents reported experiencing mental health problems. However, Sharma et al. (2019) found no significant association between age and mental health difficulties.

Some previous studies in other countries have found results congruent to the results of the present study. Vicente et al. (2012) found a similar association between age and mental health problems in Chile. They found that more children aged 4-11 experienced mental health problems than adolescents, 27.8% and 16.5%, respectively. Perera (2009), who used the same tool to measure mental health difficulties among Srilankan adolescents, did not find a significant association between age and total difficulties score of the SDQ, which is different from the results of the present study.

Younger adolescents experiencing more difficulties than older adolescents can be explained in terms of various psychological and social factors. Early life experiences, social and cultural context and emotion regulation capacity are a few to mention. Emotion regulation capacity is particularly important as it is usually attributed as an important associate of mental health. Studies on the influence of age on emotion regulation have consistently found that age and emotion regulation capacity are positively associated (Leno et al., 2015; Nolen-Hoeksema & Aldao, 2011; Orgeta, 2009; Phillips et al., 2006; Sanchis-Sanchis et al., 2020; Yeung et al.,

2011) and lower emotion regulation capacity results in mental health problems (Chervonsky & Hunt, 2019; Gouveia et al., 2022; Hu et al., 2014; Phillips et al., 2006; Yeung et al., 2011).

5.7.4 Age and Residence-Based Patterns of Mental Health Difficulties

In the case of younger and older adolescents in the institutions and the community, a pattern similar to residence-based comparison was found; significantly more institutionalized younger and older adolescents reported abnormal levels of emotional problems, peer problems and internalizing problems than adolescents in the communities. Significantly more older adolescents from the institutions reported abnormal levels of total difficulties, but no such association was found among younger adolescents.

5.8 The Pattern of CU Trait

The callous-unemotional trait is a relatively new concept in the field, so there are limited studies on its prevalence. Nation-wide prevalence studies are yet to be done for it. CUT's prevalence was similar to total difficulties, suggesting a close relationship between them. Therefore, hypotheses relating to CU traits were not generated or tested. Their prevalence, demography-based pattern and association with different maltreatment experiences were explored.

Among the respondents, 16.10% of respondent adolescents reported high total CU traits. No studies were found that reported the prevalence of CU traits in national samples of any country. Hence, a comparison between the results of the present study and studies from other countries was not possible. Very few studies have reported the prevalence of CU traits in their respondents. Most such studies are limited to specific groups of adolescents. Leno et al. (2015) found that 51% of the respondents met the criteria for high levels of CU traits among 92 respondents diagnosed with an autism

spectrum disorder. The study respondents belonged to a specific group of adolescents, so the findings cannot be generalized to the general population. But it provides a glimpse of the prevalence of CU traits. Another study among adolescents from Italy's Gothic subculture (Tassi et al., 2018) found a high prevalence of unemotional traits compared with callous and uncaring traits. They have not reported the prevalence of total CU. This study's respondents also do not belong to the general population. There have been more studies on incarcerated youths, but most of such studies are focused on validating, evaluating reliability, or examining the factor structure of the inventory. As the official cut-off score of the inventory has not yet been published, more information on its prevalence is yet to be available. Studies reporting the prevalence of CU traits in the Nepali population were not found.

A significant association between all three socio-demographic variables and factors of CU traits was found. More institutionalized adolescents reported high callousness and CU total, whereas more adolescents from the community reported high levels of uncaring. No statistically significant association was found between residence and the unemotional factor of the CU traits. Significantly more girls than boys reported high levels of total CU and uncaring. A pattern similar to residence-based comparison was found among the boys and girls in the institutions and community; both institutional boys and girls reported higher callousness, uncaring and CU total than community boys and girls. More younger adolescents reported higher levels of uncaring and total CU traits than older adolescents. A pattern similar to residence-based comparison was found for younger and older adolescents in the institutions and community. In the case of the uncaring factor, significantly more older adolescents from the community reported higher levels than older adolescents from the institutions. This pattern is similar to the distribution of mental health difficulties, confirming that CU traits also represent mental health issues.

5.9 Maltreatment and Mental Health

The correlation coefficients for socio-demographic, maltreatment and mental health variables indicated that maltreatment variables could predict mental health difficulties, so hierarchical linear regression models were tested to confirm this association. Results from the regression analysis for each type of maltreatment were analyzed. The results showed that some of the maltreatment experiences predicted some types of mental health problems. However, not all maltreatment types predicted mental health problems. Thus, the fifth hypothesis - *childhood maltreatment would be associated with mental health problems in adolescents.,* was partially accepted.

Among the seven types of maltreatment, psychological/emotional abuse, peer or sibling victimization and sexual abuse were statistically significant predictors of general mental health difficulties (SDQ total). One and three types of maltreatment predicted externalizing and internalizing problems, respectively. Emotional problems and hyperactivity/inattention were predicted by one, conduct by two, peer problem by three and prosocial by two types of maltreatment events.

The predictive potential of each CM type for mental health difficulties and CU trait and their factors are discussed separately.

Researchers generally explain the association based on two distinct theories; both seem plausible. The first explanation is based on the Attachment theory (Bowlby, 1969). According to Bowlby's theory, children reared in a conducive environment develop secure attachments. Later research supported this idea (Haskett & Kistner, 1991) and found that abused children displayed more negative behavior and less positive peer interactions than non-abused comparison children. Abused children were seen as less popular by their peers. Even though they approached abused children just as frequently as they did comparison children, peers were less

likely to return the initiations of abused children. Another possible explanation comes from Bandura's social learning theory (Bandura, 1971). According to which an abused child learns aggressive and coercive behavior through modeling, children exhibiting both behaviors are likely to be rejected by their peers (Asher & Coie, 1990).

5.9.1 Conventional Crime and Mental Health Difficulties

Conventional crime predicted peer problems significantly. As a form of maltreatment, it includes being beaten, threatened, or stolen. Such activities are not uncommon in a society with a high prevalence of childhood maltreatment. In the name of disciplining the child, such actions are even considered desirable in some communities.

Conventional crime, one of the most severe forms of childhood abuse as identified by many previous researchers, may have the potential to exert various dysfunctions in the victim. Still, the high co-occurrences of different forms of maltreatment among the study respondents are not to be undermined. Adolescents who have been victims of conventional crime as children experiencing problems in peer relationships can be explained in terms of insecure attachment (Cicchetti & Barnett, 1991). Children exposed to abuse are more likely to develop an insecure attachment style and see themselves as victims rather than perpetrators (including family members and peers) (Cicchetti & Barnett, 1991). These children are more likely to develop a defensive coping mechanism to deal with their abusive parents or caregivers and they are also more likely to employ the same defensive behaviors when interacting with their peers. There are chances that children expressing such defensive gestures while dealing with their peers are less liked by their peers. Another possible explanation comes from Bandura's social learning theory (Bandura, 1971).

According to the theory, a child who has been abused learns aggressive and coercive behavior through modeling. Children who exhibit such behaviors are more likely to be teased by their peers (Asher & Coie, 1990).

Based on a review, Leeb et al. (2011) concluded that maltreated children have been shown to respond to friendly approaches by peers and adults with avoidance, fear and anger. If someone responds to a friendly gesture by a peer in such a way, it inevitably results in a peer problem. A relatively older but more comprehensive study to date to examine the relationship between physical abuse and peer problems (Dodge et al., 1994) found that physically maltreated children began to experience peer problems as early as kindergarten and continued. Based on data collected from multiple sources, they confirmed that these two are strongly related.

In contrast, early exposure to severe forms of maltreatment implants insecure attachment (Cicchetti & Barnett, 1991). Children who have developed an insecure attachment style are likely to view other people (family members or even peers) as perpetrators and themselves as victims (Cicchetti & Barnett, 1991); such children are prone to develop a defensive coping mechanism to deal with their abusive parents/caregivers; they are likely to use the same defensive gestures while dealing with their peers.

5.9.2 Physical Abuse and Mental Health Difficulties

Physical abuse is a common form of CM, studied extensively in terms of its prevalence and consequence. It’s also an early identified form of maltreatment with possible adverse consequences. The hierarchical linear regression showed that physical abuse did not significantly predict mental health difficulties. Previous studies usually report an association between childhood physical abuse and internalizing behavior; for example, Mills et al. (2013) found a significant association between

these two. A systematic review of data from East Asia and the Pacific region (Fry et al., 2012) found that the risk of suicidal ideation and suicide attempts was four times higher in people who have experienced childhood physical abuse, suggesting higher levels of internalizing mental health problems among physically abused respondents. However, physical abuse in this study did not predict any other forms of mental health difficulties. Similar to the present study, a study in Kenya (Laurenzi et al., 2020) with a high prevalence of physical abuse did not find that harsh physical discipline predicts any mental health outcomes. Results from these previous studies and the present study suggest a complicated relationship between physical abuse and mental health difficulties, possibly mediated or moderated by different psychological and social variables. A high prevalence of physical abuse, a favorable attitude of society towards it, and possibly a high frequency of abuse experiences may have resulted in habituation, causing less effect on the adolescent's mental health.

5.9.3 Psychological/Emotional Abuse and Mental Health Difficulties

Psychological/Emotional abuse significantly predicted three out of eight dimensions of mental health difficulties. It predicted prosocial behavior negatively and significantly, conduct and total difficulties significantly. It is also a widely studied form of childhood maltreatment for its potential to lead to various mental health consequences. A growing corpus of research from high- and low-income nations suggests that of all forms of childhood maltreatment, emotional abuse may have the most extensive harmful effects on mental health (Pandey et al., 2020). Taillieu et al. (2016) found that emotional abuse was more strongly associated with many mental disorders (DSM-IV, Axis I and II disorders) in their study than other forms of CM, suggesting that emotional abuse has the potential to incur many types of mental health problems. A systematic review and meta-analysis (Norman et al., 2012) found robust

evidence for the association between childhood emotional abuse and depressive disorders, anxiety disorders, suicide attempt, drug abuse and risky sexual behavior. The review's findings suggest a strong association of emotional abuse with externalizing and internalizing problems; the present study also observed a similar pattern. Likewise, Hagborg et al. (2017), in a study designed to assess gender differences between emotional maltreatment and mental, emotional and behavioral problems, found that emotional maltreatment significantly impacted all outcome variables (externalizing, internalizing and psychosomatic problems) for both boys and girls.

A negative association of emotional/psychological abuse with prosocial behavior (the only positive mental health outcome) is consistent with findings for other subscales. The absence of any association with hyperactivity was a novel finding. It was not significantly predicted by psychological/emotional abuse, an ingredient of the externalizing domain of mental health difficulties. A study with similar findings (Tran et al., 2017) among Vietnamese adolescents found that lifetime emotional abuse predicted better academic performance. Though they did not report results on hyperactivity, it can be inferred that adolescents with better academic performance must not have heightened levels of hyperactivity or inattention problems.

Two alternative explanations for the link between psychological/emotional abuse and multiple mental health difficulties are available; the first is based on attachment theory and the second is on the emotion regulation model. Riggs (2010), as in the case of physical abuse, proposed an explanation for the association based on attachments. They contend that emotional abuse by attachment figures during infancy and the early years of childhood promotes the growth of insecure attachment

organization, which hinders emotional control and encourages negative internal working models of oneself and others that trigger and sustain negative coping mechanisms, which is the turning point for many mental health difficulties.

A growing body of research has consistently shown that difficulties in emotion regulation result in various forms of mental health problems (Burns et al., 2010; Dvir et al., 2014; Hatkevich et al., 2021; Humphreys et al., 2020; Jedd et al., 2015; Kim & Cicchetti, 2010). Victims of emotional abuse report heightened levels of emotional dysregulation (Burns et al., 2010; Hatkevich et al., 2021; Jedd et al., 2015; Lereya et al., 2015) when compared with non-victims. Thus, the association between emotional abuse and various mental health difficulties can be explained as an outcome mediated by emotional dysregulation, which is also a consequence of emotional abuse.

5.9.4 Peer or Sibling Victimization and Mental Health Difficulties

Peer or sibling victimization was the maltreatment type associated significantly with most subtypes of mental health difficulties. It predicted emotional problems, hyperactivity, peer problems, externalizing, internalizing and total difficulties significantly and positively. Also called peer bullying, sibling bullying, or bullying only, it is a different type of maltreatment where a child is victimized repeatedly by someone of their age (inside or outside of the family). Mental health consequences of peer victimization and sibling victimization are studied separately or in combination. Previous studies have indicated several possible mental health consequences of peer or sibling victimization. In their study among children and adolescents, Jenkins et al. (2014) found a strong association between sibling and peer victimization and mental health difficulties; children experiencing both types of victimization reported worse mental health difficulties. This finding supports the findings of the present study.

A qualitative study among young adults (deLara, 2019) found that their respondents reported that a common aspect of being a bullied victim was feeling excluded or rejected. Their data showed that bullying caused persistent issues with state anxiety, social anxiety, recurring melancholy, depression, shame, fury, revenge fantasies, suicidality and PTSD for a significant proportion of victims. Comparably, Evans et al. (2018) examined the impacts of cumulative bullying experiences. It was discovered that these experiences were strongly connected with higher levels of aggression and internalizing symptoms as well as reduced self-esteem and future optimism; they did not report on the association with externalizing problems. Another study (Dantchev et al., 2019) revealed that sibling and peer bullying had cumulative impacts on depressive symptoms, suicidal thoughts and suicidal self-harm. By early adulthood, there was a threefold increase in the likelihood that those bullied at home and by peers would experience clinical depression and suicidal thoughts and have self-harmed with that goal. Instead of sibling bullying, anxiety disorders were revealed to be primarily linked to peer bullying.

Given its unique nature, some researchers have also examined the possible effects peer/sibling victimization and adult maltreatment can exert on a child's mental health. A study (Lereya et al., 2015) found an elevated risk of mental health problems such as anxiety, depression, self-harm, or suicidality in young adults who were bullied by peers as a child, regardless of whether they had a history of maltreatment by adults. When bullying by peers was explicitly compared to childhood maltreatment, bullying by peers had more negative effects on early or young adults' general mental health. Such a comparison was beyond the scope of the present study. Still, peer or sibling victimization was more prevalent among other forms of maltreatment and significantly associated with the most mental health problems in the present study.

Few previous studies utilized the SDQ to measure the outcome of peer or sibling victimization and these studies also report findings similar to the present study (Galal et al., 2019; Gowda et al., 2019; Rasalingam et al., 2017; Stadler et al., 2010; Zwierzynska et al., 2013).

It was the only type of maltreatment significantly associated with hyperactivity/inattention. The direct link between hyperactivity and peer or sibling victimization is yet to be explored, but previous studies consistently report that there is a link between the two (ADHD) (Jedd et al., 2015; Shipman & Taussig, 2009; Vahl et al., 2016; Zhang et al., 2019). However, the relation between the two is to be explained cautiously, as ADHD is considered a neurological disorder. Brain dysfunctions are the responsible factors behind this behavioral problem. So, hyperactivity among the respondents cannot be considered the result of physical injury but rather an indirect effect of early exposure to maltreatment. Researchers have found a link between early exposure to childhood maltreatment and high functioning of the amygdala (Jedd et al., 2015; Teicher & Samson, 2013) and ADHD (Capusan et al., 2016; Hadianfard, 2014; Oram, 2019; Stern et al., 2018).

As with other forms of maltreatment, researchers usually explain the link between peer/sibling victimization and mental health difficulties with the help of attachment and social learning theories. Additionally, children victimized by someone with a status similar to them in both families (by a sibling) and in schools (by peers) with a high potential for different forms of mental health problems seem logical. It can be inferred that the high prevalence of peer or sibling victimization and other forms of maltreatment contributed to heightened mental health problems among respondents of the present study.

5.9.5 Sexual Abuse and Mental Health Difficulties

Child sexual abuse significantly predicted total difficulties, internalizing problems, peer problems and conduct and significantly and negatively predicted prosocial behavior. It is probably the first identified among several types of CM and has been studied extensively for its causes and adverse consequences. Results from the national comorbidity survey (Molnar et al., 2001) found a significant association between childhood sexual abuse and the onset of mood, anxiety and substance use disorder. Additionally, they found that early experience of sexual abuse is sufficient to initiate significant mental health problems. A subset of their participants, who reported only experience of sexual abuse, still had a high chance of reporting mental health problems compared to the total participants. This result indicates that sexual abuse is the most serious form of CM. A study among Israeli adolescents (Mansbach-Kleinfeld et al., 2015) found that internalizing disorder, notably depression, was related to child sexual abuse. Victims of sexual abuse were 4.5 times more likely to be depressed and 3.8 times more likely to have an internalizing disorder than those who were not; this supports the present study's findings.

Upon review of the existing literature, it was found that previous studies were more focused on the long-term impact of childhood sexual abuse on mental health difficulties. Such studies frequently adopt a longitudinal design. A review of meta-analysis (Priebe et al., 2010) found that childhood sexual abuse was found to be a non-specific risk factor that makes a child vulnerable to various types of mental health difficulties in adulthood. They also found that meta-analytic studies had found a consistent tendency among previous studies to include other factors as mediators or moderators. Comparably, Fry et al. (2012), in their meta-analysis, found that children who experienced child sexual abuse had a median twofold increased risk for mental

health problems. A recent umbrella review (Hailes et al., 2019) found that child sexual abuse is strongly associated with conversion disorder, borderline personality disorder, anxiety and depression; as the present study relied on screening instruments, the exact diagnostic information cannot be compared. According to Cutajar et al. (2010), childhood sexual abuse was found to raise the incidence of a variety of mental health problems in both childhood and adulthood in a large cohort of sexually abused children who were followed up for 43 years. When compared to the general population, victims of childhood sexual abuse had three times the burden of mental health problems, according to the study. Sexual abuse increased the likelihood of the majority of outcomes, including psychosis, affective disorders, anxiety, substance misuse and personality disorders. Similar findings are reported by (O'Leary et al., 2010; Pinto Pereira et al., 2017). The findings of these studies support the findings of the present study.

The link between childhood sexual abuse and mental health difficulties can be explained in the light of the theoretical models applied to other forms of maltreatment: attachment theory and emotional dysregulation. As most sexual abuse perpetrators are known adults or even close relatives, the child may feel betrayed because of such experiences. They can also learn a faulty coping mechanism like denial or repression to deal with the resultant experience, leading to more internalizing problems or acting out.

5.9.6 Witnessing Domestic Violence and Mental Health Difficulties

Witnessing domestic violence, also called exposure to parental violence or exposure to intimate partner violence, was significantly associated with peer problems and internalizing. Unlike many previous studies, the present study did not find a significant association between witness to domestic violence and other mental health

difficulties (externalizing or total difficulties). Very few previous studies have examined the association between exposure to domestic violence and subsequent mental health difficulties; most report mixed findings. Most previous studies have found exposure to domestic violence to be associated with externalizing and internalizing problems. A literature review (Holt et al., 2008) found that domestic violence can tremendously impact children's lives and can reverberate beyond generations. They further suggest that a direct pathway between the two rarely leads to a definite outcome. The present study attempted to examine the direct link between the two, which may have resulted in such an outcome. A study among Kenyan adolescents (Laurenzi et al., 2020) found that exposure to domestic violence predicted worse mental health outcomes than other forms of maltreatment (psychological and physical abuse). Evans, Davies and DiLillo, (2008), a meta-analysis of studies examining the relationship between domestic violence exposure in childhood and adolescent internalizing and externalizing behaviors, discovered significant mean-weighted effect sizes for internalizing and externalizing behaviors, indicating moderate associations between exposure and both outcomes. Moylan et al. (2010), a study aiming to investigate the consequences of child abuse and exposure to domestic violence, discovered that the link between dual exposure (child abuse and exposure to domestic violence) was strongly associated with internalizing and externalizing behaviors. However, no such association was found when child abuse or exposure to domestic violence was tested. They conclude that the relationship between exposure to violence and mental health difficulties is complicated, mediated, or moderated by different factors. A study among Finnish and Swedish adolescents (Peltonen et al., 2010) also found a strong association between parental violence and mental health

difficulties (as measured by SDQ). In the present study, a higher prevalence of other forms of maltreatment and a comparatively lower prevalence of witnesses to domestic violence may be accountable for its association with fewer mental health difficulties.

A growing body of research on the consequences of domestic violence exposure on mental health outcomes proposes some mediators between the two. For example, Katz et al. (2007) suggested that the relationship is mediated by emotional competence. Based on a longitudinal study, they found that emotional awareness moderated the association at the age of five and children's friendship closeness and internalizing problems at the age of eleven. Emotion dysregulation moderated the association at the age of five and children's unfavorable peer group relationships, social issues and internalizing and externalizing problems at the age of eleven. They also found that children from high domestic violence homes were more emotionally dysregulated and less aware of their own emotions. The results of the present study indicated its significant association with internalizing problems and peer problems, a type of mental health problem corresponding to internalizing problems, which suggests a possible link between witnessing domestic violence and internalizing problems.

5.9.7 Exposure to Community Violence and Mental Health Difficulties

Although one of the most common types of maltreatment in the current study, exposure to community violence was not associated with mental health difficulties. This is one of the less studied forms of childhood maltreatment globally. Many of the previous studies have not addressed it as one of the maltreatment types. Studies that have included it as a form of maltreatment have found it to be significantly associated with any form of mental health difficulties, specifically PTSD (Gollub et al., 2019; Ramírez et al., 2020). The present study utilized a screener for mental health

difficulties and another for callous-unemotional traits. Though SDQ incorporates a wide range of mental health difficulties among children and adolescents, it seems to overlook features of PTSD. Results of the present study also suggest that exposure to community violence, a maltreatment type, has less to do with the maltreatment dimensions measured by SDQ.

Prosocial behavior was the only positive factor among the studied variables of mental health difficulties, which needs special consideration. Two maltreatment types, psychological/emotional and sexual abuse, had a significant and negative association with it (discussed earlier). Though the associations between it and remaining maltreatment types were not statistically significant, a unique relationship pattern was observed between conventional crime and prosocial behavior. All maltreatment types were associated negatively with prosocial behavior (either significantly or non-significantly), but conventional crime had a positive (nonsignificant) association with it. Previous studies that explored the association between maltreatment and prosocial behavior have consistently reported a negative relation between maltreatment, for example, Zelviene et al. (2020) and, which is valid for all other significant predictors of prosocial behavior in this study. No previous study examined the predictive potential of conventional crime for prosocial behavior. Based on an experimental study, Alejandra Vélez et al. (2016) proposed that maltreatment experience can have a positive relationship with prosocial behavior depending upon a mediator – subjective insecurity. In a study among Chinese adolescents, Yu et al. (2020) found empathy and gratitude as possible mediators between maltreatment and prosocial behavior. The present study's respondents may have developed some aspects of prosocial behavior based on the conventional crime/s they have experienced.

5.10 Maltreatment and CU Traits

Out of the seven types of maltreatment, only three were significantly associated with CU traits. Sexual abuse predicted the CU total and two factors: callousness and uncaring; peer or sibling victimization predicted callousness; and witness to domestic violence predicted uncaring and CU total. Conventional crime, physical abuse, psychological/emotional abuse and exposure to community violence were not significantly associated with any CU factors. None of the maltreatment types was significantly associated with the unemotional factor of the CU traits.

Previous studies on the link between maltreatment and CU traits have reported a strong association between them (Byrd et al., 2018; Carlson et al., 2015; Joyner & Beaver, 2021; Oshri et al., 2020). Additionally, (Kimonis et al., 2013) found that maternal care is associated with high CU traits beyond the influence of childhood maltreatment. As the name implies, CU traits are supposed to be highly heritable, but there are controversies regarding its formation. New bodies of research have consistently supported that environmental factors like early experiences have much to do with its formation. Waller et al. (2018) found that twins who received harsher parenting reported higher CU traits than twins who received warmer parenting. The nature of parenting was found to be related to CU traits over and above other variables, e.g., genetics, sex and age.

Previous studies support a significant association between peer or sibling victimization and callousness. Zych et al. (2019), for example, in a meta-analysis, found that bully victims scored low in empathy (opposite of callousness), whereas (Muñoz et al., 2011) found that children high in CU traits scored low in empathy and were more involved in bullying. Sexual abuse predicted three out of four domains of the CU traits in the present study. One of the most pervasive forms of CM, sexual

abuse, seems to contribute significantly to the formation of CU traits. It was associated negatively with callousness and not with unemotional, suggesting that those who have experienced sexual abuse have more emotional disturbances and are less callous in social relationships. The positive association of sexual abuse with uncaring indicates that though they seem to be empathetic (affectively), they are likely to be uncaring behaviourally. The association between domestic violence and uncaring suggests a possibility of developing an uncaring tendency in a child repeatedly exposed to intimate partner violence.

One of the unique findings of the present study regarding CU traits was that any form of childhood maltreatment did not predict the unemotional dimension of CU traits. This can be explained based on findings from a study among male juvenile offenders (Kimonis et al., 2012). The researchers found that participants could be distinguished into two variants of psychopathy: primary (low anxiety) and secondary (high anxiety and history of abuse). The secondary group scored higher on emotional problems. The researchers suggested that children with high CU traits can be further divided based on emotional processing and stability. This idea was further extended by (Kimonis et al., 2013), who found that youth with high CU traits can be distinguished based on their maltreatment history. Secondary psychopathy variants (high-anxious) reported more history of sexual abuse than primary variants and low psychopathy groups.

In contrast, primary variants (average or below average in anxiety) reported more neglectful childhood experiences. The results of exploratory analyses revealed that primary variants displayed more unemotional features than secondary variants, even though callousness and uncaring scores did not differ significantly. In other words, respondents without maltreatment histories showed more unemotional features

than respondents with maltreatment histories. Respondents of the present study reported a high prevalence of childhood maltreatment and high emotional problems (in SDQ) and low unemotional (in ICU), consistent with previous studies.

5.11 Summary

Adolescents are in the transitional phase of their life. Bombarded by various psychological, biological and social changes, they are highly prone to mental health difficulties. Most mental health problems begin in adolescence and continue later in life. So, programs focused on preventing mental health problems and promoting mental health focus explicitly on adolescents. Childhood maltreatment is a global problem with the potential for multitudes of adverse outcomes. It is highly prevalent in low and middle-income countries and still prevalent in high-income countries. One of the widely recognized negative consequences of childhood maltreatment is mental health problems. Nepali children are at risk of experiencing childhood maltreatment along with other adversities. Early institutionalization is one of the adversities many Nepali children and adolescents face. Children are kept in such institutions to protect them from being revictimized, ensure their fundamental rights and fulfill their basic needs. But while doing so, they also lack the warmth they were supposed to receive while being with their kith and kins in the family. I the other hand, children in the community are at risk of childhood maltreatment and children in institutions are already victims of various forms of maltreatment. But whether those living in the institutions and those living in the community experience childhood maltreatment more is rarely examined. Additionally, whether community or institutionalized adolescents are more vulnerable to mental health problems is also less investigated.

The present study intended to examine the prevalence of childhood maltreatment and mental health difficulties among adolescents in the institutions and community. It also attempted to examine the association between the experience of specific childhood maltreatment and specific mental health difficulties.

Based on a cross-sectional design, the present study employed a survey method for data collection. Purposively selected respondents from 12 care homes in Kathmandu valley and 16 schools where such adolescent studies participated in the study. Of 590 adolescents aged 12-17 (M Age =14.84, SD =1.67), 50% were from institutions and 50% were from the community; 68.14% were boys and 31.86% were girls; 40% were younger and 60%were older adolescents.

Of the respondents, 96.29% had experienced at least 1 type of childhood maltreatment in their life. Nearly 30% of the respondents had experienced six types, 24 % had experienced five types, 17% had experienced four types, seven % had experienced seven and three types, 3% had experienced one and 3% had not experienced any childhood maltreatment. More institutionalized adolescents experienced one, two, three, four and five types of maltreatment, whereas six and seven types of maltreatment were experienced more by community adolescents. Physical abuse was the most prevalent type of childhood maltreatment, followed by conventional crime, exposure to community violence, peer or sibling victimization, psychological/emotional abuse, sexual abuse and witness to domestic violence.

A significant association between residence and each type of childhood maltreatment was found. Institutionalized adolescents were more likely than adolescents in the community to witness domestic violence, but more adolescents in the community experienced all remaining types of maltreatment.

A statistically significant association between sex and two types of maltreatment was found; girls were more likely to experience sexual abuse, whereas boys were more likely to witness domestic violence. A similar pattern was found when comparing boys and girls from the institution and community. More boys and girls from the community had experienced different types of maltreatment except for witness to domestic violence, which more institutionalized adolescents experienced. There was no significant association between the residence of boys and girls and peer or sibling victimization.

A statistically significant association between age and peer or sibling victimization and sexual abuse was found. Significantly more younger adolescents had experienced both types of maltreatment than older adolescents. More younger and older adolescents from the community had experienced most types of maltreatment than adolescents from the institutions, except for witnessing domestic violence.

Among the five subtypes of mental health difficulties, conduct problems were the most prevalent, followed by emotional problems, peer problems, hyperactivity/inattention and problems in prosocial behavior. A significant association was found between emotional problems, peer problems, internalizing problems, total difficulties and adolescents' residence. More adolescents from the institution reported having abnormal levels of all these mental health difficulties than adolescents from the community. A similar pattern was found when comparing boys and girls in institutions and communities and younger and older adolescents from institutions and communities. Sex and emotional problems, peer problems, conduct problems, externalizing, internalizing and total difficulties were significantly associated. More boys reported abnormal levels of conduct, externalizing and total difficulties, whereas more girls reported abnormal levels of emotional, peer and internalizing problems.

Age and emotional problems, peer problems, externalizing and internalizing were significantly associated when age-based patterns were tested. Younger adolescents were more likely than older adolescents to report abnormal mental health difficulties.

A statistically significant association was discovered between adolescent's residence and callousness, uncaring and total CU traits. Adolescents in institutions were more likely to report high callousness and CU total, whereas more adolescents in the community reported an uncaring attitude. A similar pattern was found when comparing boys and girls in institutions and communities and younger and older adolescents from institutions and communities. A statistically significant association between sex and uncaring and CU total was found; girls reported having high levels of both factors than boys. Age, uncaring, and CU totals were also statistically significantly associated; younger adolescents were more likely than older adolescents to report high levels of both CU factors.

Correlation analysis indicated the possibility of maltreatment experiences to predict mental health difficulties and CU traits. Hierarchical linear regressions were analyzed to confirm the association. The regression analysis revealed that victimization by peers or siblings significantly predicted six dimensions of mental health difficulties, while sexual abuse predicted five, psychological/emotional abuse predicted three and exposure to domestic violence predicted two. Physical abuse or exposure to community violence predicted no aspect of mental health difficulties. Psychological/emotional, sexual and peer or sibling victimization significantly predicted total mental health difficulties.

Sexual abuse negatively predicted callousness and positively predicted uncaring. Sexual abuse and witnessing domestic violence significantly predicted total CU. Any kind of abuse did not substantially predict the unemotional dimension of the CU characteristics.

The present study contributes to the existing literature. It revealed the prevalence and sociodemographic-based patterns of childhood maltreatment, mental health difficulties and callous-unemotional traits among Nepali adolescents living in institutions and communities. A high prevalence of childhood maltreatment was found among both groups of adolescents. Adolescents in the community outnumbered adolescents in the institutions in most maltreatment types. The high prevalence of physical abuse, conventional crimes and other kinds of maltreatment suggests a lack of awareness and strict rules and regulations regarding childhood maltreatment and its adverse effects.

Though the prevalence of childhood maltreatment was higher among adolescents in the communities than in the institutions, institutional adolescents outnumbered community adolescents on most mental health difficulties and factors of CU traits. The present study supports the shielding role of families or communities in protecting children and youth from mental health problems. The present study also revealed a high prevalence of internalizing problems among institutionalized, younger girls, whereas total difficulties were higher among institutionalized boys and older adolescents. These warrant prompt action to address the mental health conditions of institutionalized and community adolescents and a long-term plan of action to identify the risk and protective factors against adolescents' mental health problems.

Some types of childhood maltreatment were strongly associated with specific mental health difficulties and CU traits. The findings suggest a need for action to minimize incidents of such maltreatment in the future and proper interventions for those bearing the mental health consequences of these events.

The current study has numerous strengths, including a sizable sample size of teenagers in institutions and the community and the use of widely recognized

measures of child maltreatment and mental health issues, but it also has some weaknesses. Only young individuals residing in 12 institutions in the Kathmandu Valley were included in the sample. The use of self-report measures and dependence on the retrospective report, two potential shortcomings, may have contributed to response and memory bias.

5.12 Major Findings

The lifetime prevalence of childhood maltreatment was 96.29 % in the respondent adolescents. More than 90% of adolescents from all sociodemographic groups had experienced at least one type of maltreatment in their lifetime. Adolescents in the community experienced more childhood maltreatment than adolescents in the institutions.

Most respondents had experienced 4, 5 or 6 types of maltreatment. Physical abuse was the most prevalent form of CM, followed by conventional crime, exposure to community violence, peer or sibling victimization, psychological/emotional abuse, sexual abuse and witnessing domestic violence. More community adolescents had experienced conventional crime, physical abuse, psychological/emotional abuse, victimisation by peers or siblings, sexual abuse, and exposure to community violence. In contrast, more institutionalised adolescents reported witnessing domestic violence. More boys were exposed to community violence, whereas more girls experienced incidents of sexual abuse. More boys and girls in the community experienced conventional crime, physical, psychological/emotional and sexual abuse, and exposure to community violence than institutionalised boys and girls, whereas more institutionalised adolescents (both boys and girls) witnessed domestic violence than institutionalised adolescents.

More young adolescents experienced sexual abuse and victimisation from peers or siblings than older adolescents. More adolescents (both younger and older) in the community experienced conventional crime, physical abuse, psychological/emotional abuse, exposure to community violence, and sexual abuse than institutionalised adolescents. More older adolescents in the community experienced peer or sibling victimization than older adolescents in the institutions. Domestic violence was witnessed by more adolescents (younger and older) in institutions than by adolescents in the community.

Of the total adolescents, 17.46% and 20.68% of the institutionalised adolescents and 14.24% of the community adolescents experienced abnormal levels of mental health problems.

The prevalence of internalising problems was nearly two times higher than externalising problems among the respondents. Conduct problems were most prevalent, followed by emotional problems, peer problems, hyperactivity, and problems with prosocial behavior.

More institutionalized adolescents had abnormal levels of total difficulties, internalizing, emotional and peer problems. More girls experienced internalizing, emotional problems and peer problems, whereas more boys experienced externalizing and conduct problems.

More institutionalized boys and girls have abnormal levels of emotional, peer and internalizing problems than boys and girls from the community. More younger adolescents had abnormal levels of emotional problems, peer problems, externalizing and internalizing problems. More young and older adolescents in institutions experienced emotional and peer problems. More older adolescents from the institutions experienced total difficulties than older adolescents from the community.

More than 15% (16.10%) of the respondent adolescents had higher callous-unemotional traits. More institutionalised adolescents had higher levels of callousness and total CU, and more community adolescents had high levels of uncaring.

Girls and younger adolescents had higher levels of uncaring and CU total than boys and older adolescents. Peer or sibling victimization predicted six dimensions of mental health difficulties, sexual abuse five, psychological/emotional abuse three, witnessing domestic violence two and conventional crime predicts one mental health difficulty. Psychological/emotional abuse, peer or sibling victimization and sexual abuse were statistically significant predictors of total mental health difficulties.

The conventional crime was the only predictor to predict prosocial behavior positively (but non-significantly), while other types of maltreatment predicted it negatively.

Physical abuse and exposure to community violence did not significantly predict any mental health difficulties. Sexual abuse and witness to domestic violence significantly predicted total CU traits. Peer or sibling victimization significantly and positively and sexual abuse (negatively) predicted callousness. Sexual abuse and witnessing domestic violence significantly predicted uncaring; none of the types of maltreatment significantly predicted the unemotional dimension of the CU traits.

5.13 Implications of the Study

Childhood maltreatment is a global problem, identified as a precursor to many cognitive, emotional, and behavioural problems. However, the extent of childhood maltreatment in Nepali society is a less investigated phenomenon. Even childhood maltreatment is not authentically defined in Nepal and no specific tool/criteria are prescribed to measure it. The findings of the present study will shed light on the necessity of defining and exploring the extent of childhood maltreatment in the

country. The high prevalence of childhood maltreatment in the community and relatively low prevalence in the institutions show that there is still a lack of awareness and strict rules and regulations (as in the institutions) can help to minimize it.

Mental health problems were more prevalent among institutionalized adolescents than in the community. This indicated the possibility that there are additional factors associated with institutionalization, in addition to childhood maltreatment leading to mental health difficulties. So, further research to identify such factors can be designed based on the present study.

A policy to address the types of childhood maltreatment identified as having a high potential for mental health difficulties will help promote mental health in the population more effectively.

5.14 Conclusions

Despite changes in the law and various attempts made by governmental and non-governmental agencies to reduce CM, it is still highly prevalent among Nepali adolescents, irrespective of their residence, sex and age. Most childhood maltreatment victims are also prone to experience multiple forms of abuse as a child.

Physical abuse was the most prevalent form of childhood maltreatment and witness to domestic violence has the lowest prevalence. Community adolescents were more vulnerable to most forms of childhood maltreatment than institutionalized adolescents. The same pattern existed between institutionalized and community boys and girls and younger and older adolescents, with slight variations. Adolescents in the community were more likely than adolescents in the institutions to experience physical abuse, psychological/emotional abuse, peer or sibling victimization, sexual abuse and exposure to community violence. In contrast, more institutionalized adolescents experienced witnessing domestic violence. Sex had little role in

maltreatment when compared with residence and age. Girls were more vulnerable than boys to sexual abuse and boys were more prone to be exposed to community violence. Boys and girls in the community were more likely to experience sexual abuse, conventional crime and physical and psychological/emotional abuse than their counterparts in the institutions. More younger adolescents experienced peer or sibling victimization and sexual abuse than older adolescents. Both younger and older adolescents from the community were more likely to experience different forms of maltreatment except for witness to domestic violence.

The prevalence of mental health difficulties was also towards the higher end of the global prevalence but similar to the national prevalence as reported by previous studies. Mental health difficulties were more prevalent among institutionalized adolescents than adolescents from the community. More boys had total mental health difficulties, externalizing problems and their subtypes, whereas more girls had internalizing problems and emotional and peer problems. More institutionalized boys and girls were experiencing most mental health difficulties than boys and girls from the community. Younger adolescents were more likely to experience most mental health difficulties than older adolescents. Still, no such difference existed in the case of conduct, hyperactivity, prosocial and total difficulties. Both younger and older adolescents in the institutions were more likely than younger and older adolescents in the community to experience different mental health difficulties.

The prevalence of high levels of CU traits among the respondents was 16.10%. More institutionalized adolescents had higher levels of callousness and total CU traits, whereas more community adolescents had uncaring. More girls have uncaring and total CU traits than boys. Younger adolescents than older adolescents had higher levels of uncaring and total CU traits.

Peer or sibling victimization significantly predicted six dimensions of mental health difficulties, sexual abuse predicted five, psychological/emotional abuse predicted three and witnessing domestic violence predicted two dimensions of mental health difficulties. Physical abuse and exposure to community violence did not predict any of the dimensions of mental health difficulties. Total difficulties: the aggregation of mental health difficulties was predicted significantly by psychological/emotional, sexual abuse and peer or sibling victimization.

Total CU trait is significantly predicted by sexual abuse and witness to domestic violence, callousness (negatively) by sexual abuse and uncaring by sexual abuse and witnessing domestic violence. None of the maltreatment types significantly predict the unemotional dimension of the CU traits.

5.15 Recommendations

The knowledge based on the present study can help address the burning issues of children and adolescents' mental health to some extent. The study also identified some additional knowledge gaps that further research can address. The study's findings would be helpful to the policymakers, agencies concerned with child rights and welfare and government and non-governmental organizations working in the field to estimate the prevalence of childhood maltreatment in the population and its association with mental health difficulties.

Childhood maltreatment (including abuse and neglect) is not authentically defined in the context of Nepal, leading to different outcomes of research and diffuse outcomes of any attempt to address it. A consensus among all stakeholders regarding the definition of childhood maltreatment, considering the Nepali context, is necessary. Certain types of childhood maltreatment were found to be extremely prevalent among the adolescent respondents. The prevalence of many forms of childhood maltreatment

was higher among adolescents in the community, which shows a lack of sensitivity regarding this issue in the general public. Investigations into the knowledge, attitude and behavior regarding CM, awareness campaigns and effective enforcement of the existing law regarding child rights are equally essential.

The source of information for the present study was the adolescents only; studies involving parents' and teachers' reports on the same would be helpful to clarify the indications of the present study further. The present study adopted a cross-sectional design which limits the capacity to infer causal relationships; studies based on longitudinal designs will help to understand the relationship between childhood maltreatment and mental health difficulties over time.

The present study was focused on exploring the presence or absence of certain types of childhood maltreatment; while doing so, it did not account for the frequency, intensity and timing of the maltreatment event; a further study accounting for these aspects of the childhood maltreatment would add clarity to the picture.

Internalizing problems were highly prevalent among the total respondents and more prevalent among institutionalized, female and younger adolescents. Given its potential long-term serious consequences and complicated nature, a further study to examine the extent and nature of internalizing problems in the population is necessary.

Conduct problem was the most prevalent type of mental health difficulty, which may continue to be antisocial behaviors later in life. So, the extent of the conduct problem in the population needs to be confirmed by more focused studies. Identifying and mitigating the factors leading to the conduct problem is equally important.

Certain types of childhood maltreatment were found to have the potential to lead to multiple forms of mental health difficulties, as shown by the results of the

present study; actions to control such acts timely are necessary. Institutionalized and community adolescents differed distinctly in some measures of childhood maltreatment and mental health difficulties; large-scale studies based on either group of adolescents will help understand the distribution of these variables between the two groups of adolescents.

APPENDIXES

Appendix A. Demographic Details of Respondents

Table I.

Ethnicity of the Respondents

SN	Ethnicity	Institutionalized		Community	
		f	%	f	%
1	Brahman/Kshetri	54	18.31	81	27.46
2	Tarai/Madheshi	26	8.81	15	5.08
3	Dalit	33	11.19	21	7.12
4	Newar	20	6.78	60	20.34
5	Tamang	88	29.83	36	12.20
6	Gurung	17	5.76	22	7.46
7	Magar	13	4.41	8	2.71
8	Rai/Limbu	9	3.05	16	5.42
9	Tharu	7	2.37	3	1.02
10	Muslim	5	1.69	2	0.68
11	Other	23	7.80	31	10.51
	Total	295	100.00	295	100.00

Source: Field Survey, 2018, 2019

Table II.

Grades the Respondents were enrolled in

Grade	Institution	Community	Total
V	5	0	5
VI	27	33	60
VII	43	41	84
VIII	52	36	88
IX	47	48	95
X	51	62	113
XI	47	44	91
XII	23	31	54
Total	295	295	590

Source: Field Survey, 2018, 2019

Appendix B. Independent Sample t-test

									95% CI for Cohen's d	
	Group	*N*	Mean	SD	*t*	*df*	*p*	d	Lower	Upper
Total victimization score	Institution	295	4.2	1.91	-7.1	588	< .001	-0.58	-0.75	-0.42
	Community	295	5.16	1.31						
	Male	402	4.61	1.67	-1.4	588	.16	-0.12	-0.3	0.05
	Female	188	4.82	1.76						
	Younger	236	4.81	1.7	1.54	588	.12	0.13	-0.04	0.29
	Older	354	4.59	1.7						

Source: Field Survey, 2018, 2019

Appendix C. Correlation between Variables

Variables	Value	EMOP	CONP	HYAC	PRP	PSOC	EXTP	INTP	TDF	CLNS	UNC	UNE	CUT
Residence	*r*	-.096	.012	.164	-.149	-.241	.111	-.142	-.029	-.233	.081	.308	.026
	p	**.020**	.772	**<.001**	**<.001**	**<.001**	**.007**	**.001**	.475	**<.001**	**.048**	**<.001**	.528
Age	*r*	-.144	-.109	-.091	-.131	.031	-.118	-.164	-.174	.085	-.263	-.081	-.244
	p	**<.001**	**.008**	**.028**	**.001**	.452	**.004**	**<.001**	**<.001**	**.040**	**<.001**	**.048**	**<.001**
Sex	*r*	.281	-.070	.041	.207	.176	-.013	.295	.185	-.110	.414	.167	.408
	p	**<.001**	.089	.319	**<.001**	**<.001**	.757	**<.001**	**<.001**	**.008**	**<.001**	**<.001**	**<.001**
Conventional crime	*r*	-.009	.066	.142	.157	-.111	.127	.077	.122	-.095	.065	.031	.018
	p	.826	.110	**.001**	**<.001**	**.007**	**.002**	.062	**.003**	**.021**	.115	.450	.659
Physical abuse	*r*	.081	.071	.150	.175	-.155	.134	.146	.171	-.038	.053	.105	.060
	p	**.049**	.085	**<.001**	**<.001**	**<.001**	**.001**	**<.001**	**<.001**	.362	.201	**.010**	.144
Psychological/Emotional abuse	*r*	.072	.152	.131	.164	-.210	.167	.134	.183	-.153	.121	.093	.058
	p	.078	**<.001**	**.001**	**<.001**	**<.001**	**<.001**	**.001**	**<.001**	**<.001**	**.003**	**.024**	.159
Peer or sibling victimization	*r*	.141	.116	.168	.203	-.158	.171	.200	.228	.033	.030	.016	.056
	p	**.001**	**.005**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	.417	.466	.703	.176
Sexual abuse	*r*	.074	.109	.121	.149	-.218	.137	.128	.161	-.299	.319	.133	.186
	p	.072	**.008**	**.003**	**<.001**	**<.001**	**.001**	**.002**	**<.001**	**<.001**	**<.001**	**.001**	**<.001**
Witness to domestic violence	*r*	.082	.045	.029	.227	.060	.043	.173	.137	.023	.104	-.077	.101
	p	.047	.279	.489	**<.001**	.144	.300	**<.001**	**.001**	.581	**.011**	.062	**.014**
Exposure to community violence	*r*	-.055	.028	.046	.085	-.163	.044	.008	.030	-.019	-.008	.050	-.006
	p	.180	.499	.268	**.040**	**<.001**	.283	.847	.461	.639	.850	.221	.879
Emotional problems	*r*		.178	.247	.409	-.037	.255	.877	.717	.215	.056	-.030	.181
	p		**<.001**	**<.001**	**<.001**	.375	**<.001**	**<.001**	**<.001**	**<.001**	.171	.465	**<.001**
Conduct problems	*r*			.421	.305	-.347	.819	.278	.649	.063	.073	-.009	.111
	p			**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	.128	.078	.820	**.007**
Hyperactivity/Inattention	*r*				.235	-.320	.865	.288	.681	.088	.113	.128	.205
	p				**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**.033**	**.006**	**.002**	**<.001**
Peer problems	*r*					-.233	.318	.797	.701	.057	.207	.020	.255
	p					**<.001**	**<.001**	**<.001**	**<.001**	.166	**<.001**	.627	**<.001**
Prosocial	*r*						-.394	-.147	-.320	.081	-.165	-.114	-.153
	p						**<.001**	**<.001**	**<.001**	**.050**	**<.001**	**.006**	**<.001**
Externalizing	*r*							.336	.789	.090	.111	.076	.191
	p							**<.001**	**<.001**	**.028**	**.007**	.066	**<.001**
Internalizing	*r*								.844	.172	.146	-.009	.254
	p								**<.001**	**<.001**	**<.001**	.819	**<.001**
Total difficulties	*r*									.164	.159	.037	.274
	p									**<.001**	**<.001**	.369	**<.001**
Callousness	*r*										-.496	-.145	.051
	p										**<.001**	**<.001**	.213
Uncaring	*r*											.277	.812
	p											**<.001**	**<.001**
Unemotional	*r*												.468
	p												**<.001**
CUTotal													

[Residence (Institution =0, community =1); Sex (Female =0, Male =1); Age group (12-14 =0, 15-17 =1); Conventional crime (No =0, Yes =1); Physical Abuse (No =0, Yes =1); Psychological Emotional Abuse (No =0, Yes =1); Peer or sibling victimization (No =0, Yes =1); Sexual Abuse (No =0, Yes =1); Witnessing Domestic Violence ((No =0, Yes =1); Indirect Victimization (No =0, Yes =1), TDF =Total Difficulties; EXTP =Externalizing Problems; INTP = Internalizing Problems; EMOP = Emotional Problems; PRP = Peer Problems; CONP = Conduct Problems; HYAC = Hyperactivity; PSOC = Prosocial; CUT = Callousness Unemotional Total; CLNS = Callousness; UNC = Uncaring; UNE = Unemotional]

Source: Field Survey, 2018, 2019

Appendix D. Correlation between TVS and Mental Health Problems

Variable		TVS
1.TVS		
2.Emotional problems	Pearson's r	0.10
	p Value	0.02
3.Conduct problems	Pearson's r	0.15
	p Value	< .001
4.Hyperactivity/Inattention	Pearson's r	0.19
	p Value	< .001
5.Peer problems	Pearson's r	0.29
	p Value	< .001
6.Prosocial	Pearson's r	-0.23
	p Value	< .001
7.Externalizing	Pearson's r	0.20
	p Value	< .001
8.Internalizing	Pearson's r	0.22
	p Value	< .001
9.Total difficulties	Pearson's r	0.25
	p Value	< .001
10.Callousness	Pearson's r	-0.14
	p Value	< .001
11.Uncaring	Pearson's r	0.18
	p Value	< .001
12.Unemotional	Pearson's r	0.08
	p Value	0.05
13.ICUTotal	Pearson's r	0.12
	p Value	0.01

[TDF =Total Difficulties; EXTP =Externalizing Problems; INTP = Internalizing Problems; EMOP = Emotional Problems; PRP = Peer Problems; CONP = Conduct Problems; HYAC = Hyperactivity; PSOC = Prosocial; CUT = Callousness Unemotional Total; CLNS = Callousness; UNC = Uncaring; UNE = Unemotional]

Source: Field Survey, 2018, 2019

Appendix E. Demographic Form

सहभागीको कोड नम्बर :

<table>
<tr><td colspan="3">सहभागीको बिवरण</td></tr>
<tr><td colspan="2">उमेर: (कृपया ठिक चिन्ह दिनुहोस्)
१२ | १३ | १४ | १५ | १६ | १७</td><td rowspan="3">स्थायी ठेगाना:</td></tr>
<tr><td colspan="2">लिंग: महिला / पुरुष /अन्य</td></tr>
<tr><td colspan="2">जात/जाति (कृपया ठिक चिन्ह दिनुहोस्)</td></tr>
<tr><td>क) ब्राह्मण / क्षेत्री</td><td>ज) राई / लिम्बु</td><td rowspan="4">हालको ठेगाना :</td></tr>
<tr><td>ख) तराई / मधेशी</td><td>झ) थारु</td></tr>
<tr><td>ग) दलित</td><td>ञ) मुसलमान</td></tr>
<tr><td>घ) नेवार</td><td rowspan="4">ट) अन्य (कृपया उल्लेख गर्नुहोस्)</td></tr>
<tr><td>ङ) तामाङ</td><td rowspan="3">अहिले कति कक्षामा पढ्दै हुनुहुन्छ ?
कृपया उल्लेख गर्नुहोस्
कक्षा:</td></tr>
<tr><td>च) गुरुङ</td></tr>
<tr><td>छ) मगर</td></tr>
<tr><td colspan="3">हाल कहाँ बस्नु हुन्छ ? (कृपया ठिक चिन्ह दिनुहोस्)</td></tr>
<tr><td colspan="2">क) बाबुआमासंग,</td><td>कति समय भयो ? ....</td></tr>
<tr><td colspan="2">ख) आफन्त कहाँ,</td><td>कति समय भयो ? ....</td></tr>
<tr><td colspan="2">ग) कुनै संस्थामा,
(कृपया संस्थाको नाम उल्लेख गर्नुहोस्)</td><td>कति समय भयो ? ....</td></tr>
<tr><td colspan="2">घ) होस्टेलमा,</td><td>कति समय भयो ? ....</td></tr>
<tr><td colspan="3">ङ) अन्य (कृपया उल्लेख गर्नुहोस्)</td></tr>
</table>

Appendix F. The 12-Item Reduced-item Youth Lifetime Version of the Juvenile Victimization Questionnaire (JVQ-R2 SSV)

अब हामी तपाईलाई केही कुराहरुबारे सोध्नेछौं जुन तपाईंको जीवनमा कुनै पनि समयमा कुनै पनि ठाउँमा भएको हुनसक्छ ।

१. तपाईंको जीवनको कुनै समयमा कसैले तपाईको कुनै चिज वा सामानहरु चोरेर लगेको र कहिल्यै फिर्ता नगरेको छ ? (जस्तै : झोला, पैसा, घडी, कपडाहरु वा अरु कुनै सामान)

१ छ

२ छैन

२. कहिलेकाँही मानिसहरुलाई लठ्ठी, भाटा, ढुंगा, बन्दुक, चक्कु, छुरी वा अरु वस्तुहरुले आक्रमण गरिन्छ जसले चोटपटक लाग्छ वा लाग्नसक्छ । तपाईको जीवनको कुनै समयमा कसैले तपाईलाई जानीजानी कुनै वस्तु वा हतियारले आक्रमण गरेको छ ? (यो जुनसुकै ठाउँमा हुनसक्छ, जस्तै : घरमा, विद्यालयमा, पसलमा, बस वा कारमा, सडक वा बाटोमा अथवा अन्य कुनै पनि ठाउँमा)

१ छ

२ छैन

३. तपाईको जीवनको कुनै समयमा कसैले तपाईलाई हतियार प्रयोग नगरी हिर्काएको, पिटेको वा आक्रमण गरेको छ ?

१ छ

२ छैन

४. अब हामी तपाईको रेखदेख वा हेरचाह गर्ने ठूला मानिस बारेमा तपाईंलाई केही प्रश्नहरु सोध्नेछौं । यहाँ रेखदेख वा हेरचाह गर्ने ठूला मानिस भन्नाले तपाईंको बुबाआमा, तपाईंको रेखदेख वा हेरचाह गर्न बसेको को वा राखेको कोही मान्छे, तपाई सँगै बस्ने ठूला मानिस वा अरु ठूला मानिस हुन् भन्ने बुझाउँछ । सुरू गर्नु अघि म फेरि तपाईलाई भन्छु कि तपाईले भन्नु भएका कुराहरु वा जवाफहरु

गोप्य रहने छन् । यदि तपाईलाई कुनै प्रश्नको जवाफ दिन मन लागेन भने नदिन पनि सक्नुहुन्छ । तर तपाईंले कुरा नलुकाइ इमान्दार भएर जवाफ दिनुपर्छ, जसले हामी वा हामी जस्तै अनुसन्धान गर्नेहरुले तपाईको उमेरका बालबालिकाहरुले कहिलेकाँही कस्तो किसिमको समस्याहरु भोग्दा रहेछन् भन्ने कुरा अझ राम्ररी बुझ्न सक्नेछन् ।

तपाईको जीवनको कुनै समयमा तपाईलाई कुनै ठूला मानिसले जथाभावी नाम राखेर बोलाएको, तपाईसँग खराब वा नराम्रो कुरा बोलेको, वा तपाईंलाई मन पराउँदिन भनेका कारणले एकदमै डर लाग्ने वा एकदमै नरमाइलो लाग्ने भएको छ ?

१ छ

२ छैन

५. कहिलेकाही केटाकेटीहरु वा अन्य ब्यक्तिहरुको समूह वा ग्याङले मान्छेलाई आक्रमण गर्छन् । तपाईंको जीवनको कुनै समयमा कुनै केटाकेटीहरुको समूह वा अन्य व्यक्तिहरुको ग्याङले तपाईंलाई आक्रमण गरेको छ ?

१ छ

२ छैन

६. तपाईंको जीवनको कुनै समयमा कुनै केटाकेटीहरुले - तपाईंको भाई वा बहिनीले पनि हुनसक्छन् तपाईंलाई - हानेको वा पिटेका छन् ? (जस्तै : घरमा, स्कुलमा, बाहिर खेल्दा, पसलमा वा अन्य कुनै ठाउँमा)

१ छ

२ छैन

७. तपाईंको जीवनको कुनै समयमा कुनै केटाकेटीहरुले - तपाईंको भाई वा बहिनीले पनि हुनसक्छन् तपाईंलाई - हानेको वा पिटेका छन् ? (जस्तै : घरमा, स्कुलमा, बाहिर खेल्दा, पसलमा वा अन्य कुनै ठाउँमा)

१ छ

२ छैन

८. तपाईको जीवनको कुनै समयमा तपाईले चिनेको कुनै ठूलो मानिसले तपाईको गोप्य अङ्ग छोएका छन्, जुन उनीहरुले छुनु हुँदैनथ्यो, वा तपाईंलाई उनीहरुको गोप्य अङ्ग छुन लगाएका छन् ? वा कुनै ठूलो मान्छेले तपाईलाई यौन सम्पर्कका लागि बाध्य बनाएको छ ?

१ छ

२ छैन

९. तपाईको जीवनको कुनै समयमा तपाईले नचिनेको कुनै ठूलो मानिसले तपाईको गोप्य अङ्ग छोएका छन्, जुन उनीहरुले छुनु हुँदैनथ्यो, वा तपाईंलाई उनीहरुको गोप्य अङ्ग छुन लगाएका छन् ? वा कुनै ठूलो मान्छेले तपाईलाई यौन सम्पर्कका लागि बाध्य बनाएको छ ?

१ छ

२ छैन

१०. तपाईको जीवनको कुनै समयमा, के तपाईले बुबाआमामध्ये एकले अर्कालाई (वा अन्य कुनै महिला वा पुरुषले तपाईंको बुबा वा आमालाई) धकेलेको, धकेलेर लडाएको, झापड हानेको वा पिटेको, लात्ती वा मुड्कीले हिर्काएको, कुटेको वा पिटेको देख्नु भएको छ ?

१ छ

२ छैन

११. तपाईको जीवनको कुनै समयमा, कसैले जानीजानी कसै माथि लठ्ठी, भाटा, ढुंगा, बन्दुक, चक्कु वा अरु कुनै चिजले आक्रमण गरेको देख्नु भएको छ ? (यो तपाईंको नजिक वा तपाईं कतै हिँड्दाको समयमा पनि देखिएको हुनसक्छ, जस्तै : घरमा, विद्यालयमा, पसलमा, बस वा कारभित्र, बाटोमा वा अन्त कतै)

१ छ

२ छैन

१२. तपाईको जीवनको कुनै समयमा, तपाईं त्यस्तो कुनै ठाउँमा पुग्नु भएको छ वा हुनुहुन्थ्यो जहाँ तपाईले मान्छेलाई गोली हानेको, बम पड्केको, वा सडकमा हुलदंगा गरेको देख्नु भएको वा वा सुन्नु भएको छ ?

१ छ

२ छैन

Appendix G. Strengths and Difficulties Questionnaire (SDQ)

तलका हरेक भनाइहरु पढ्नुहोस् र ती भनाइहरु “ठीक हैन”, “ अलिअलि ठीक हो” वा “एकदमै ठीक हो” मध्ये कुनमा पर्छ, कृपया तलको उपयुक्त कोठामा चिन्ह लगाउनुहोस् । तपाईंलाई ठ्याक्कै यही हो भन्ने ढुक्क वा पक्का नभएपनि सकेसम्म सबै भनाइहरुमा चिन्ह लगाउनुभयो भने यसले हामीलाई मद्दत गर्नेछ । विगत ६ महिनाभित्र यी कुराहरु तपाईसँग कति मिलेका छन् भन्ने अनुभवका आधारमा आफ्नो उत्तर दिनुहोस् ।

भनाइहरु	ठीक हैन	अलिअलि ठीक हो	एकदमै ठीक हो
१. अरु मानिसहरुलाई म राम्रो गर्न खोज्छु । म उनीहरूको भावनालाई ध्यान दिन्छु ।			
२. मलाई धेरै छट्पटी हुन्छ, म लामो समयसम्म शान्त भएर बस्न सक्दिन ।			
३. मेरो टाउको धेरै दुख्ने गर्छ, पेट दुख्ने गर्छ, वा म धेरै बिरामी हुन्छु ।			
४. प्रायः म कुनै पनि कुरा अरुसँग बाँड्ने गर्छु (जस्तै : खानेकुरा, खेलौना, कलमहरू आदि)			
५. म धेरै रिसाउँछु, र प्रायः रिसको बेला होश गुमाउँछु (रिस नियन्त्रण गर्न सक्दिन) ।			
६. मेरो उमेरका अरु मानिससँग खेल्नु वा बस्नुभन्दा म एक्लै बस्न र खेल्न पन पराउँछु ।			
७. मलाई गर्नु भनेको कुरा म प्रायः गर्छु ।			
८. म धेरै चिन्ता गर्छु ।			
९. यदि कसैलाई पीडा वा दुःख छ र कोही बिरामी छ भने म सहयोग गर्छु ।			
१०. म चकचक वा बदमासी गरिरहन्छु ।			
११. मसँग एकजना (वा धेरैजना) असल साथी छन् ।			
१२. म धेरै झगडा गर्छु । मैले चाहेको कुरा म मानिसहरूबाट गराउन सक्छु ।			

१३. म प्रायः दुःखी, निराश वा आँखाभरी आँशु पारेर रोएको हुन्छु ।			
१४. सामान्यतयाः मेरो उमेरका मानिसहरूले मलाई मन पराउँछन्			
१५. मेरो ध्यान सजिलै अन्यत्र जाने गर्छ, म ध्यान केन्द्रित गर्न नै सक्दिन ।			
१६. म नयाँ ठाउँ वा परिस्थितिहरुमा आत्तिन्छु । म सजिलै आत्मविश्वास गुमाउँछु ।			
१७. म आफूभन्दा साना बालबालिका प्रति दयालु छु ।			
१८. मलाई बारम्बार झुठो बोलेको वा ठगेको दोष वा आरोप लाग्ने गर्छ ।			
१९. अन्य बालबालिका वा ठूला बच्चाहरुले मलाई खिसी गर्ने, हेप्ने वा तर्साउने गर्छन्।			
२०. म प्रायः अरुलाई सहयोग गर्छु (बाबुआमा, शिक्षक, अरु बालबालिकाहरू)			
२१. कुनै कुरा गर्नुभन्दा पहिले म सोच्छु			
२२. घर, विद्यालय वा अन्य ठाउँबाट म अरुको सामान टिपेर हिँड्छु ।			
२३. म मेरो उमेरका मानिसभन्दा ठूलो मानिसहरुसँग बढी मिल्छु ।			
२४. म धेरै डराउँछु, म सजिलै तर्सिन्छु ।			
२५. म थालेको काम पूरा गर्छु, मेरो ध्यान राम्रो छ ।			

Appendix H. Inventory of Callous Unemotional Traits (ICU)

भनाइहरु	हुँदै हैन	अलिअलि हो	धेरै हो	पक्का वा एकदम हो
१. म मेरा मनका कुरा खुलस्त रुपमा व्यक्त गर्छु।	०	१	२	३
२. कुन कुरा ठीक र कुन कुरा बेठीक हो भन्ने बिषयमा मैले सोच्ने कुरा अरु मानिसले सोच्ने भन्दा फरक हुन्छ।	०	१	२	३
३. पढाइमा या काममा म कति राम्रो गर्छु भनेर चासो राख्छु ।	०	१	२	३
४. आफूले चाहेको कुरा पाउनलाई जोसुकैलाई दुख दिनु परे पनि म : पछि हट्दिन।	०	१	२	३
५. मैले कुनै गलत काम गरें भने मलाई नरमाइलो लाग्छ वा पछुतो लाग्छ।	०	१	२	३
६. म आफ्नो भावनाहरु वा मनका कुराहरु अरुलाई देखाउँदिन ।	०	१	२	३
७. मलाई सबै काम समयमै गर्नुपर्छ जस्तो लाग्दैन ।	०	१	२	३
८. म अरुको भावनाको वा मनका कुराको चासो राख्छु।	०	१	२	३
९. म कुनै समस्यामा परे पनि म मतलब गर्दिन।	०	१	२	३
१०. म भावनामा बहकिन्नसोच बिचार गरेर मात्रै काम गर्छु। ,	०	१	२	३
११. काम राम्रोसँग गर्नै पर्छ भन्ने तिर म ध्यान दिन्न ।	०	१	२	३
१२. अरुले हेर्दा म कसैको मतलब नराख्ने मान्छे जस्तो देखिन्छु ।	०	१	२	३
१३. म आफ्नो गल्ती सजिलै स्वीकार गर्छु ।	०	१	२	३
१४. मलाई हेरेर अरुले सजिलै मेरो भावना बुझ्न सक्छन् ।	०	१	२	३
१५. म सधैं सबै काम सकेसम्म राम्रोसँग गर्ने कोशिश गर्छु ।	०	१	२	३
१६. मैले चोट पु। (सरी भन्छु) याएको मान्छेहरुसँग म माफी माग्छु-	०	१	२	३
१७. म अरुहरुको भावनामा चोट नपुयाउने कोशिस गर्छु ।-	०	१	२	३
१८. मैले कुनै गल्ती गरेपनि मलाई पछुतो लाग्दैन ।	०	१	२	३
१९. म आफ्नो कुरा भनिहाल्ने र भावुक मान्छे हुँ ।	०	१	२	३
२०. म कुनै काम राम्रोसँग गर्नकै लागि समय खर्च गर्दिन ।	०	१	२	३
२१. अरुले कस्तो महसुस गर्छन् भन्ने कुराको मलाई कुनै मतलब छैन।	०	१	२	३
२२. अरुबाट म आफ्नो भावनाहरुलाई लुकाउँछु।	०	१	२	३
२३. म जे काम गर्छु एकदम मेहनत का साथ गर्छु ।	०	१	२	३
२४. म अरुलाई राम्रो लाग्ने वा महसुस हुने खालका कामहरु गर्छु ।	०	१	२	३

कृपया हरेक भनाइहरू पढ्नुहोस् र यी भनाइहरू तपाईंमा कत्तिकोलागू हुन्छ हेर्नुहोस्। प्रत्येक भनाइका ०-३ सम्मका विकल्पमध्ये तपाईंलाई सही लागेको उपयुक्त विकल्पमा गोलो घेरा लगाउनुहोस्। कुनैपनि भनाइ त्यसै खाली नछोड्नु होला।

Appendix I. Information Sheet

जानकारी पत्र

नमस्कार !

मेरो नाम सन्देश ढकाल हो र म मनोविज्ञान केन्द्रिय बिभाग त्रि.बि. कीर्तिपुरमा उप-प्राध्यापक पदमा काम गर्छु, मेरो बिध्याबारिधि (PhD) उपाधिका लागि मैले यो अनुसन्धान गर्न लागेको हुँ यसमा यहाँले सहयोग गर्नु हुनेछ भन्ने आशा राखेको छु ।

यो अनुसन्धानको उदेश्य के हो ?

बाल्यकालका अनुभवहरुको मानशिक स्वास्थ्य स्थितिसंग कस्तो सम्बन्ध रहेको छ भन्ने बिषयबस्तुमा केन्द्रित हुने छौं ।

यो अनुसन्धानमा कस्ता क्रियाकलापहरु गरिन्छन् ?

यो अनुसन्धानमा भाग लिन सहमत हुने सहभागीहरुलाई केही फारामहरू भर्न र केही प्रश्नावलीहरुको जवाफ दिन अनुरोध गरिने छ । फारामहरुमा सहभागीहरुसंग सम्बन्धित केही जानकारीहरु र प्रश्नावलीमा बाल्यकालका अनुभवहरु र मानशिक स्वास्थ्य संग सम्बन्धित केही प्रश्नहरु सोधिने छन् ।

यो अध्ययनको उपयोगिता के छ ?

यो अध्ययनमा संकलन गरीएका सूचनाहरुको माध्यमबाट हामी सहभागीहरु र उनीहरुकै उमेर समूहका किशोर-किशोरीहरुको मानशिक स्वास्थ्यको अवस्था र बाल्यकालका अनुभवहरुको मानशिक स्वास्थ्यसंगको सम्बन्धका बारेमा जानकारी पाउने छौं।

यस अध्ययनमा सहभागीको के अधिकार रहनेछ ?

यस् अध्ययनमा सहभागिता स्वैच्छिक भएकाले उनीहरु कुनै पनि समयमा अध्ययनबाट बाहिरिन चाहेमा त्यसो गर्न वा कुनै प्रश्नको जवाफ दिन नचाहेमा नदिन स्वतन्त्र हुनेछन । सहभागीहरुले आफूलाई लागेका जिज्ञासाहरु जतिबेला जँहा पनि सोध्न सक्नेछन , उनीहरुले सोध्ने प्रश्नलाई सही र गलत भनेर छुट्ट्याइने छैन । यस अध्ययनमा भाग लिएका कारणले सहभागीलाई कुनै पनि किसिमको जोखिम पर्ने छैन ।

सहभागीले दिएको सूचना अत्यन्तै गोप्य कसरी राखिन्छ ?

१. हरेक सहभागीलाई एउटा कोड नम्बर दीइने छ र अभिलेखमा नामको सट्टामा त्यहि कोड प्रयोग गरिने छ।

२. कुन सहभागीलाई कुन कोड दिइएको छ भन्ने कुरा अनुसन्धानकर्ता बाहेक अरु कसैलाई थाहा हुने छैन।

३. सहभागीको नाम अभिलेखबाट मेटाइने छ।

४. यसरी जम्मा गरिएका, नाम नभएका सूचनाहरु सुरक्षीत गरी राखिने छ।

यसरी जम्मा भएको सूचनालाई के गरिन्छ ?

संकलित सूचनाका आधारमा आएको समग्र नतिजाको आधारमा शोधपत्र तयार गरिने छ र त्रिभुवन विश्वविद्यालय, मानविकी तथा सामाजीक शास्त्र संकाय, डीनको कार्यालयमा बुझाइने छ, सो शोधपत्रका नतिजाहरुलाई बिज्ञहरु सामु प्रस्तुत गरिने छ, साथै राष्ट्रिय एबं अन्तर्राष्ट्रिय जर्नलहरुमा प्रकाशन गरिने या सम्मेलनमा प्रस्तुत गरिने छ, तर यसो गर्दा कुनै पनि सहभागीहरुको नाम या पहिचान खुल्ने जानकारी कतै उल्लेख गरिने छैन। हामीलाई एक जना सहभागीले के सुचना दिन्छन भन्दा पनि समग्र सहभागीले के-कस्ता सूचना दिए भन्ने कुरामा मात्रै चासो छ।

म बालबालिकाहरुसंग जानकारी लिनका लागि अनुसन्धानको राष्ट्रिय-अन्तरराष्ट्रिय आचारसंहिताको अधिनमा रही काम गर्ने छु। यस अध्ययनका बारेमा याँहाहरुलाई अझै केही कुरा बुझ्नु पर्ने भए शोधार्थी सन्देश ढकाल संग फोन नं ९८५११२०१७५ मा अथवा email: sdhakal961@gmail.com मा सम्पर्क गर्न सक्नु हुनेछ।

Appendix J. Assent Form for Children

सहभागीको मन्जुरी पत्र

मैले यस अनुसन्धान सम्बन्धि जानकारी पत्र पढेको छु र मौखिक जानकारी पनि प्राप्त गरेको छु। मैले नबुझेको कुराहरु सोध्ने पुरा अवसर दिइयो र सोधिएका प्रश्नहरु बुझ्ने गरी सन्तोषजनक जवाफ पाइयो। मैले दिएका जानकारीहरु यो अध्ययनको लागि मात्र प्रयोग गरिनेछ भन्ने कुरा मैले बुझेको छु। मलाई राम्रोसंग थाहा छ मैले भनेका कुराहरुको गोपनीयता र मेरो व्यक्तिगत विवरण गोप्य राख्नुपर्ने आवश्यकतालाई अनुसन्धानको क्रममा सम्मान गरिनेछ र यदि कुनै पनि समय मैले अध्ययनबाट हट्ने निर्णय गरे भने कुनै प्रश्नबिना नै मलाई यसो गर्ने अवसर दिईने छ।

म यस अध्ययनमा भाग लिन सहमत छु।

सहभागीको हस्ताक्षर: ....

नाम:

बिद्यालय /बालगृह :

सहभागीका लागि तोकिएको कोड नम्बर:

मिति ....

Appendix K. Consent Form for School Teachers

बिद्यालयका प्रधानाध्यापकको मन्जुरी पत्र

मैले अनुसन्धानसम्बन्धि जानकारी पत्र पढेको छु र मौखिक जानकारी पनि प्राप्त गरेको छु । मैले नबुझेको कुराहरु सोध्ने पुरा अवसर दिइयो र सोधिएका प्रश्नहरु बुझ्ने गरी सन्तोषजनक जवाफ पाइयो । हाम्रा बिद्यार्थीहरुले दिएका जानकारीहरु यो अध्ययनको लागि मात्र प्रयोग गरिनेछ भन्ने कुरा मैले बुझेको छु । मलाई राम्रोसंग थाहा छ कि सहभागीले भनेका कुराहरुको गोपनीयता र उनीहरुको व्यक्तिगत विवरण गोप्य राख्नुपर्ने आवश्यकतालाई अनुसन्धानको क्रममा सम्मान गरिनेछ र यदि कुनै पनि समय सहभागीले अध्ययनबाट हट्ने निर्णय गरे भने कुनै प्रश्नबिना नै उनीहरुलाई यसो गर्ने अवसर दिईने छ ।

म...

....

मा मेरो रोहबरमा रहेका बालबालिका लाइ यस अध्ययनमा भाग लिन दिन सहमत छु ।

हस्ताक्षर: ....

नाम :

Appendix L. Consent Form for Care Home Staff

बालगृहका अभिभावकको मन्जुरी पत्र

मैले अनुसन्धान सम्बन्धि जानकारी पत्र पढेको छु र मौखिक जानकारी पनि प्राप्त गरेको छु। मैले नबुझेको कुराहरु सोध्ने पुरा अवसर दिइयो र सोधिएका प्रश्नहरु बुझ्ने गरी सन्तोषजनक जवाफ पाइयो। बालबालिकाले दिएका जानकारीहरु यो अध्ययनको लागि मात्र प्रयोग गरिनेछ भन्ने कुरा मैले बुझेको छु। मलाई राम्रोसंग थाहा छ कि सहभागीले भनेका कुराहरुको गोपनीयता र उनीहरुको व्यक्तिगत विवरण गोप्य राख्नुपर्ने आवश्यकतालाई अनुसन्धानको क्रममा सम्मान गरिनेछ र यदि कुनै पनि समय सहभागीले अध्ययनबाट हट्ने निर्णय गरे भने कुनै प्रश्नबिना नै उनीहरुलाई यसो गर्ने अवसर दिईने छ।

म..

....

मा मेरो रोहबरमा रहेका बालबालिका लाइ यस अध्ययनमा भाग लिन दिन सहमत छु।

हस्ताक्षरः ....

नाम :

पद :

सहभागीका लागि तोकिएको कोड नम्बर :

मिति

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