History of abuse and neglect and their associations with mental health in rescued child labourers in Nepal

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Abstract

Objectives: Little is known about rates of childhood maltreatment in low-income countries, particularly amongst marginalised sectors of society. Economic hardships mean that in such countries, many children and young people are exploited in the labour force and/or are trafficked, placing them at greater-risk for being exposed to other forms of maltreatment. Cultural norms endorsing the use of physical and emotional acts to discipline children further exacerbate this risk. Here, we assessed the rates of childhood victimisation experiences and associated mental health problems in Nepalese youth rescued from illegal child labour including trafficking.

Methods: One hundred and three young people aged 12-18 years living in out-of-home care institutions and rescued from child labour/trafficking completed translated versions of selected modules from the Juvenile Victimisation Questionnaire; the Youth Inventory; and the Strength and Difficulties Questionnaire (SDQ). Care-home employees responsible for looking after the young people completed the Adolescent Symptom Inventory and the SDQ. Analysis described maltreatment frequencies and compared individuals who had and had not experienced any form of maltreatment on the presence/absence of psychiatric diagnoses.

Results: Seventy-two percent of participants experienced some form of maltreatment in their lifetime. Rates for each maltreatment type were: 46.6% for physical abuse; 40.77% for emotional abuse, 27.2% for sexual abuse, and 33% for neglect. Symptoms indicative of anxiety disorders and trauma were commonly reported especially in victims of childhood maltreatment.

Conclusions: Our estimates of physical abuse in this at-risk juvenile sample were commensurate to those reported in general population youth samples in Nepal, but sexual and emotional abuse rates were somewhat lower. The potential presence of anxiety and trauma in this sample that may result from maltreatment requires replication but underscore an urgent need for routine mental health screening in rescued child labourers during rehabilitation efforts.

Keywords: Childhood maltreatment, early-life trauma, childhood adversity, victimisation

Abbreviations: Juvenile Victimisation Questionnaire (JVQ), Strength and Difficulties Questionnaire (SDQ), Youth Inventory (YI), Adolescent Symptom Inventory (ASI).

Introduction

Childhood maltreatment is a significant global health and social problem (World Health Organisation; WHO, 2002). Early experiences of physical, sexual and emotional abuse and neglect are strongly associated with non-communicable mental (Scott, McLaughlin, Smith, & Ellis, 2012) and physical health conditions (Archer, Pinto, & Power, 2017), impacting individuals and the economy (WHO, 2002). Although childhood maltreatment occurs globally (Hovdestad, Campeau, Potter, & Tonmyr 2015), there is a gap in knowledge about cases from specific low and middle-income countries (WHO, 2014). Economic hardships in these countries mean that children and young people can be exploited in the labour force, which in turn may increase exposure to other forms of victimisation. Yet cultural practices and social stigma associated with childhood maltreatment in many of these countries means under-recognition of these problems, especially their impact on mental health. Nepal is one such country where there is a paucity of data on childhood maltreatment (Hillis, Mercy, Amobi & Kress, 2016). Where available, studies have assessed abuse and neglect in general population youth samples using non-standardised definitions. The primary objective of this study is to gather data to inform the scope of child maltreatment in Nepal, but amongst one of the most disadvantaged sectors of society, by measuring lifetime rates of maltreatment in young people with a history of child labour. A secondary objective is to explore rates of current psychiatric conditions and emotional and behavioural problems in this at-risk juvenile population, particularly elevations in symptoms associated with maltreatment.

Nepal is a landlocked country in South Asia, sharing a border with India and China. Nepal has a population of 28.98 million people and a GDP of 21 billion dollars (Forbes, 2017). Classified as a low-income country, a quarter of the population falls below the poverty line (Forbes, 2017). Because the agriculture industry in Nepal provides a livelihood to approximately two-thirds of the Nepalese population, the country's geographical location and exposure to natural disasters has had a large impact on economic growth (World Bank, 2016). The high poverty rate and limited resources available to

enforce labour laws have created an environment, in which children are at a great risk of exploitation ("Child Labour and Forced Labor Reports", 2017). Indeed, despite the Child Labour (Prohibition and Regulation) Act (2000), which prohibits children under the age of 14 years being employed as labourers, Nepal accounts for 1.6 million children aged 5-17 years in child labour, with estimates of 39.1% of school children employed (Government of Nepal, Ministry of Education, 2016). Among working children, 621,000 are estimated to be involved in hazardous work ("Child labour in Nepal", 2017), such as being employed for farming, making bricks, quarrying, construction, or domestic work. Sexual exploitation and forced labour as a result of human trafficking are also common: following the 2015 earthquake, Nepal saw an increase of 40% of human trafficking ("Trafficking in persons (TIP) nation report", 2016).

These conditions of economic exploitation in Nepal leave many young people vulnerable to maltreatment. Studies of general population samples ascertained in Nepal report that the use of physical disciplinary acts is common in young people (Atteraya et al., 2018; Kandel, Kunwar, Karki, Kandel, & Lamichhane, 2017; Rajbanshi, 2012) with almost one in two children experiencing moderate forms such as being spanked, hit or slapped on the bottom or face, and a significant number (21.5%; Atteraya et al., 2018) experiencing severe forms such as being hit or slapped on the face, hit with an object, or beaten up as hard as one could. Emotional abuse is also common with over three-quarters reporting these experiences (Atteraya et al., 2018; Rajbanshi, 2012). Finally, sexual abuse is also present, with one study of 150 students attending a public high school in Kathmandu reporting rates of 41.3%. Thus, despite using different definitions of these various forms of maltreatment across studies, estimates appear relatively similar. Furthermore most of these figures fall within the range of figures of past-year violence reported across countries in Asia of 64% and 80% of children and young people (Hillis et al., 2016) although this systematic review did not include data from Nepal.

In summary, consistent with cultural practices and norms that endorse corporal punishment and verbal humiliation as a way to encourage children to become responsible and competent (Khanal &

Park 2016), the use of physical and emotional acts to discipline young people is common in Nepal with the presence of more severe forms of childhood maltreatment also considerable (Kandel, et al., 2017; Atteraya, et al., 2018). With exception to one study that reported that children who were engaged in child labour activities were more likely to receive any kind of physical punishment than those not engaged in such activities (Kandel et al., 2017), these general population studies are less informative around rates of childhood maltreatment within more economically-marginalised sectors of society in Nepal,. Nor are they informative on the effects of childhood maltreatment on psychiatric disorders and psychopathology. To address these gaps, the current study assessed the frequency of childhood maltreatment in adolescents rescued from illegal child labour. We also assessed potential current psychiatric disorders, as well as current emotional and behavioural problems in this sample, with analyses assessing their associations with the presence of childhood maltreatment. To identify the most vulnerable individuals within our sample, additional exploratory analyses assessed associations between types of maltreatment and gender or age groups. In addition, given reported gender differences in the presence and rates of psychiatric disorders, exploratory analysis also compared males and females for psychiatric diagnoses and emotional and behavioural problems. Although data gathered on maltreatment and mental health in rescued child labourers may not be generalizable to children and young people currently illegally exploited in the labour force, nonetheless, our data may facilitate wider recognition of the victimisation experiences of child labourers and their impact on mental health – in turn, underscoring the need for additional resources dedicated to psychiatric screening and treatment in young people who are rescued for illegally working.

Methods

Sample

The participants comprised 103 young people aged 12 to 18 years living in eight different care-homes in Kathmandu valley (11% of participants were from care-home 1, 23% from care-home 2, 2% from care-home 3, 16% from care-home 4, 14% from care-home 5, 15% from care-home 6, 13% from

care-home 7, and 9% from care-home 8). All 8 care-homes provide residential facilities for children and young people with a range of referral reasons: rescued child labourers, street children, orphans, those who had run away from home, and those who were lost. Their purpose was to house young people and where appropriate, to facilitate re-integration within their biological families. We approached around 15 care-home directors by introducing the study and then giving them our eligibility criteria: participants had to be aged 12-18 years, report a history of child labour, and did not have a medical disability (through available medical records and later verified by young person themselves before taking consent). We excluded on the basis of having a medical disability because we wanted to assess the association between victimisation experiences and psychiatric symptoms without the confounding influences of other medical conditions. Eight homes agreed to participate because a large number of the young people who they accommodated met our eligibility criteria. Of the remaining homes, 6 were excluded from participation because they did not accommodate many young people who were rescued child labourers; rather they were designed to accommodate more specific groups of young people: those who had been sexually victimised, those who had been living on the streets, and those who had been abandoned. One remaining home declined participation in the study because it was time-consuming but also because only 5 young people in their care had been formerly employed as a child labourer. In the 8 care-homes who had agreed to participate, all eligible young people were provided with the study information, and all of these agreed to participate (100% response rate). All young people and a designated care-home employee responsible for that young person (the ‘keyworker’) provided written consent.

Procedures

Permission for the present study was granted by the Research Division Office of the Rector Tribhuwan University, and by the Central Child Welfare Board (CCWB) under the Ministry of Women, Children and Social Welfare. Ethical approval was sought from and given by the Nepal Health Research

Council (Ref. No: 1386; February14, 2017). As none of the standardised measures were available in Nepalese, we sought permission from the publishers/authors to create a Nepalese version. The local Nepalese investigators (SD, SN, NPS, SS) first discussed items for cultural relevance. Where an item was not culturally relevant, an alternative was proposed and discussed with other investigators (RK, VK, JL). Once agreement had been reached across investigators, the instructions, existing and modified items for the measure was translated by a professional translator. This was then back-translated by the local Nepalese investigators and checked by JL for any discrepancies in meaning with the original English version. Any discrepancies were noted and returned to the local Nepalese investigators, and resolved through another round of translation or back-translation depending on where the discrepancy arose. Up to four rounds of translation and back-translation were conducted for some measures. Where the original authors of the scale were available, they also provided feedback on the cultural modifications and the back-translations. The final Nepalese version was piloted for readability.

Testing occurred in two sessions. In the first, participants completed two tests of non-verbal cognitive ability (Wechsler Abbreviated Scale of Intelligence–Second Edition), the Strength and Difficulties Questionnaire (SDQ, Goodman, 1997) and the Juvenile Victimisation Questionnaire (Finkelhor, Hamby, Ormrod, & Turner, 2005). The Youth Inventory-4R (Gadow, et al., 2002) and a literary task were administered in the second testing session. Of note, because the tests of non-verbal cognitive ability and literary were used to select participants to a second study assessing the cognitive phenotype of maltreatment (reported elsewhere), they are not reported further here. In addition, 21 care-home employees (across the 8 care-homes) who were the designated ‘keyworker’ for each participant provided information on the participants’ demographics and work history and the characteristics of the care-home. This information was gathered to describe our sample but also to enable comparisons of the findings of future studies of rescued/non-rescued child labourers who may share some but not all of these characteristics. Keyworkers also completed the Adolescent Symptom Inventory (ASI-4; Gadow et al.,

2002) and the parent version of the SDQ. These keyworkers frequently interacted with the participants, and were deemed the best informants of the child's background and behaviour. The length of time a keyworker had known the child ranged from 3 to 96 months (mean length=22.83 months, SD=19.46). At the end of the assessment, the participants were given a non-monetary gift to say thank you.

Measures

Demographics, work history, and care-home characteristics. 'Keyworkers' provided the participants' genders, dates of birth, and ethnicities, the age the young person started working, the length of time in months that they had worked, the (average) amount of time spent working each day (in hours) and each week (in days), the type of work and the reasons for working. Keyworkers also reported on care-home details including the total number of employees, the maximum capacity of young people at any one time, the current number of young people, the maximum length of stay for any young person, and the availability of medical, psychological and educational services and resources.

Maltreatment history. The Juvenile Victimisation Questionnaire (JVQ) (Finkelhor, Hamby, Ormrod, & Turner, 2005) assessed maltreatment history and other victimisation experiences. Made up of 34 modules describing offenses against youth, these modules cover five domains of victimization: Conventional Crime (8 modules), Child Maltreatment (4 modules), Peer and Sibling Victimization (6 modules), Sexual Victimization (7 modules), and Witnessing and Indirect Victimization (9 modules). Because of our interest in maltreatment, we administered all 4 modules for Child Maltreatment. This asked the young people to report on experiences of physical abuse, psychological/emotional abuse, neglect, and custodial interference. All full modules can be further accompanied by additional supplementary questions. For the neglect module (within Childhood Maltreatment), we included an additional 5 supplementary neglect items (neglect due to: guardian substance abuse, guardian gone missing, guardian inviting dangerous guests, guardian lack of care for child's hygiene, and living in an

unsafe home). Given time constraints, abbreviated versions of the Conventional Crime and Witness and Indirect Victimization were used, with no modules from the Peer and Sibling Victimization domain, and only 2 modules of the sexual victimization domain included (sexual assault by known adult and non-specific sexual assault). The Conventional Crime asks participants whether they have experienced robbery, personal theft, vandalism, assault with weapon, assault without weapon, attempted assault, kidnapping, and any form of victimization that arose because of discrimination due to skin colour, religion, ethnicity, physical problems, or sexual orientation. The Witnessing and Indirect Victimization asks whether participants had witnessed domestic violence, parent assault of sibling (with/without weapon), burglary of family household, murder of family member/friend, murder of unknown, exposure to shooting/terrorism/riots, and war/ethnic conflict.

Across the events described within all modules, participants were asked to report on whether any of these events occurred in their lifetime. If the participant answered 'yes' to any of these events described in each module, they were scored as experiencing that type of victimization, and were asked if the event had occurred in the last year, an estimate of the total number of times the event had occurred and the approximate age of onset. Follow-up questions also probed the nature, impact, and severity of the event and, if applicable, details of the perpetrator across the lifetime experience. The English version of the JVQ has appropriate reliability and validity (Finkelhor, Hamby, Ormrod, & Turner 2005).

Potential psychiatric diagnoses. The Youth Inventory-4R (YI-4R Gadow et al., 2002) and Adolescent symptom inventory (ASI-4 Gadow et al., 2002) are 120 item scales that assess potential psychiatric diagnoses consistent with DSM-IV classification and criteria. For the YI-4R, participants were asked to consider how frequently they experienced each item NOW on a 4-point scale (0=Never to 3=very often). As it was unlikely that participants could access drugs while living in the care-home, for items on substance use/abuse, participants were asked about their lifetime occurrence. Keyworkers

completed the ASI-4, rating the frequency of participant behaviours on the same scale (0=Never to 3=Very often) again considering current patterns of behaviour (except substance use/abuse).

Emotional and Behavioural problems. The SDQ (Goodman, 1997) assesses current symptoms of psychopathology across 25 items divided into 5 subscales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behaviour.. Participants rated how true the statements were on a 3-point Likert scale (1="not true" to 3="certainly true"). Care-home employees completed the SDQ: parent version, which comprises the same 25 items (Goodman, 1998). Cronbach's alpha for the self-reported scales were: 0.662 for emotional problems, 0.440 for conduct problems, 0.278 for hyperactivity/inattention, 0.373 for peer problems, and 0.691 for pro-social behaviour. For the carer reported subscales, these were: 0.594 for emotional problems, 0.683 for conduct problems, 0.543 for hyperactivity/inattention, 0.341 for peer problems and 0.781 for pro-social behaviour.

Data analysis

Participant demographics, their work history and care-home characteristics were presented first followed by frequencies and characteristics of any lifetime experiences of the various victimisation events assessed through the JVQ. Gender (male versus female) and age-group (12-14 years versus 15-18 years) differences in each type of victimisation using Chi-square tests were presented. Similarly, potential current psychiatric diagnoses using self and keyworker report (YI-4R and ASI-4), and current emotional and behavioural symptoms (mean SDQ subscale scores) were presented. Gender differences were assessed using Chi-square statistics. Finally, to assess the association between experience of childhood maltreatment and potential DSM diagnoses, individuals who had experienced any form of maltreatment (physical abuse, psychological/emotional abuse, sexual abuse, neglect) were compared with those who did not report maltreatment on the presence/absence of each diagnosis, using Chi-square statistics. T tests

compared those who had experienced childhood maltreatment with those who had not on each SDQ subscale and total for self and keyworker reports.

Results

Participant and care-home characteristics

Demographics. There were 38 boys (36.9%). The mean age of the participants was 14.97 years (SD=1.53 years). Just under half of the participants (43.7%) were aged 12 to 14 years, and 56.3% were aged 15 to 18 years. 39.8% of the respondents were Tamangs and 26.2% were Brahman/Chhetri. Other participants were from the Dalit, Newar, Rai/Limbu, Gurung and Terai/Medeshi ethnic groups.

Work history. Participants first started work from the ages of 5 to 16 years (M=10.6, SD=2.20). The amount of time participants worked as child labourers before being rescued ranged from 3 months to 8 years (M=2.24, SD=0.25). Participants worked 4 to 21 hours a day (M=13.0, SD=4.71) and 2 to 7 days a week (M=6.19, SD=1.38). Over one third (35%) of participants were domestic workers, 28.2% worked in factories, 21.4% worked in hotels, 4.9%, in transport, 3.9%, in entertainment bars, 1.9%, in construction, and the remaining 5% in either shops, hostels, massage parlours, or on the street. Approximately half (53.4%) said their reason for working was living in poverty. Before being rescued, 42.7% of participants lived with their families and 19.4% lived in the homes they were employed in.

Care-home variables. The 8 care-homes from where these participants resided, varied from having 9 to 20 paid keyworkers. Of these care-homes, 1 was for boys only, 3 were for girls only and the remaining 4 were mixed gender. With exception to one care-home, which currently housed more young people than the maximum capacity, all other care-homes were not full; the current occupancy fell between 8 and 196. All care-homes provided access to medical doctors and psychologists, as well as academic and vocational educational opportunities. All care-homes had provisions for young people to take high school and intermediate board exams.

Maltreatment history

Seventy-four (72%) young people had experienced some form of childhood maltreatment (physical abuse, sexual abuse, psychological/emotional abuse, neglect) in their lifetime. Most participants (68.9%) experienced 3 or more types of victimisation.

Lifetime rates of specific forms of victimisation experiences including physical, emotional and sexual abuse, are presented in **Table 1** for the whole sample, split by gender and age-group. Under half of the sample had experienced physical abuse, with 62.7% of these acts committed by perpetrators outside of the family and 37.3% within the family, where within family included 'parent, and sibling, relative who lives with you' while extra-familial included 'grown up not residing in home, romantic partner, stranger and other'. 20.4% participants thought they experienced over 4 physically abusive acts in their lifetime, and the mean age of the first abusive event was estimated at 10.27 years across participants. In terms of severity, 81.3% described themselves as being physically hurt after the event, and 22.9% were hospitalised. 72.9% reported feeling 'very afraid' to these events. Just under half of the sample experienced emotional abuse, with 71.4% of these acts committed by perpetrators outside of the family and 28.6% within the family. 19.4% participants thought they experienced over 4 emotionally abusive acts in their lifetime, and 50% described themselves as feeling 'very afraid' to these events. The mean age of the first emotional abusive event was thought to be approximately 11.38 years. Just over a quarter of the sample had experienced sexual victimization, with 92.9% detailing these acts to be committed by a known perpetrator. A third of the sample reported experiencing neglect, with 18.5% participants estimating that the average occurrence of neglect across one's lifetime being over 4 times. The mean age of the first event was approximately 9.67 years. In addition, 23.3% of young people reported experiencing family abduction, 35.9% reported having to look after themselves due to guardians being intoxicated, 40% stated they had to go looking for a parent, 16.5% stated their guardians had people in the family home who the young person was afraid of, 20.4% reported living in a broken down/unsafe/unhealthy

home, and 20.4% reported their guardians not caring if they were clean or wore clean clothes. When asked to think back to these events, half of the sample recalled feeling 'very afraid'. Notably, most participants had been exposed to conventional crime and indirect forms (including witnessing) of victimisation.

Chi square analyses showed that girls reported more sexual victimisation and neglect than boys, and older adolescents reported more sexual victimisation than younger adolescents (**Table 1**).

Potential psychiatric diagnoses, and current emotional and behavioural problems

Table 2 presents the numbers of individuals potentially meeting DSM-IV criteria for *current* psychiatric diagnoses using self and keyworker-report. The most commonly reported conditions by young people were anxiety disorders (specific phobia, social phobia, separation anxiety and panic attacks); rates of these same anxiety disorders were somewhat lower using keyworker reports. In contrast, keyworkers reported behaviours consistent with PTSD in around half of the young people, which was far higher than that reported by young people themselves. Chi-square analysis (Table 2) revealed that for youth self-report, females were more likely to meet diagnostic criteria for MDD and PTSD than boys. Keyworkers report depicted males to be more likely to meet diagnostic criteria for Conduct Disorder than females.

SDQ means and standard deviations for each subscale are presented in **Table 3**. Using self-report, the mean for emotional problems was the highest, while for keyworker-report, conduct disorders received the highest mean score.

Links between maltreatment experiences and psychiatric history

Individuals who had experienced any form of childhood maltreatment (n=74) were significantly more likely to self-report GAD, $X^2(1)=7.11$, $p<.01$, PTSD diagnoses, $X^2(1)=7.13$, $p<.01$, Motor tics, $X^2(1)=5.62$, $p<0.05$, and MDD, $X^2(1)=4.89$, $p<0.05$ than those without a history. On keyworker reports,

those without a history of childhood maltreatment were more likely to meet a diagnosis for Conduct disorder, $X^2(1)=10.49$, $p<0.01$, Vocal Tics $X^2(1)=4.62$, $p<.05$, and Anorexia $X^2(1)=5.14$, $p<.05$.

Those who had and hadn't experienced any form of childhood maltreatment did not differ significantly on any of the self-reported SDQ subscales. However, on keyworker report, the no-childhood maltreatment group scored higher on the total score, $t(100)=2.205$, $p<.05$ (maltreatment-mean=.0822, maltreatment-SD=.28, non-maltreatment-mean=.24, non-maltreatment-SD=.44).

Discussion

In this study, we report on levels of childhood maltreatment and victimisation in a sample of young people rescued from economic exploitation in Nepal. A number of our findings deserve comment.

First, our data from a socially and economically marginalised sample revealed that overall nearly three-quarters had experienced some form of childhood maltreatment – estimates that far exceed the 50% rates projected from a recent review of Asian countries likely to have experienced some form of abuse (Hillis et al., 2016) although data from Nepal was not included in such projections. For specific forms of maltreatment, it is striking that our marginalised sample did not report far higher rates compared to general population youth samples. Almost half of young people were victims of physical abuse, which were higher than the moderate physical disciplinary acts reported in nationally-representative cohorts of Nepalese youth (Kandel, et al., 2017), but commensurate with those reported in students attending a public school (Rajbanshi, 2012). Our rates of sexual and emotional abuse (around a quarter and a half respectively) were also lower than those reported in general-population samples. Moreover, only about one third of the sample reported neglect. It may be that any elevation in maltreatment experience in our sample occurs in the intensity and severity of maltreatment rather than presence per se. Discrepancies across studies could also arise from the use of different definitional criteria for each form of childhood maltreatment. Unlike previous studies, here we used standardised definitions (albeit translated) from a measure that has been widely used in Western countries. It may be that by adopting stricter criteria

particularly for less overt forms of maltreatment such as emotional abuse, inflated estimates are less likely. As our data indicate the feasibility of using such a measure in Nepalese youth, this measure has potential to be applied to general population samples to more systematically assess childhood maltreatment. However, the psychometric properties need to be established first. Our data also flagged, commensurate with many childhood maltreatment samples, wide exposure to other victimisation experiences (victims/witnesses of conventional crime) and considerable co-occurrence of these experiences. It was also suggested that particular gender and age groups were more likely to have experienced particular forms of maltreatment. If replicated, these findings may point to special screening of for sexual victimisation among females and older adolescents rescued from child labour.

Second, our data add to the growing body of literature pertaining to mental illness in Nepal. Self-reports of symptoms suggested that anxiety disorders could potentially be common in our sample while keyworkers highlighted symptoms indicative of trauma. While self-reported rates of schizophrenia and bipolar disorder were somewhat elevated relative to global prevalence estimates (ref), rates of ADHD (self and keyworker reported) appeared remarkably low, again compared to global estimates (ref). Given the small size of our sample, the unknown reliability of the translated measurement tools and the general lack of awareness of mental health diagnoses in Nepal, it is difficult to ascertain without further replications, whether these unexpected findings are a reflection of the adversity experienced by our sample within a new cultural context, which may exacerbate or inhibit the psychiatric expression of economic exploitation and/or victimisation. Importantly, our data speak also to linkages between mental illness and adversity: the presence of any form of childhood maltreatment was significantly associated with many of the more commonly reported psychiatric disorders (anxiety, PTSD) when using self-reports to generate potential diagnosis, and conduct disorders when using keyworker reports. Robust data from other countries consistently show powerful predictive associations between early-life maltreatment and behavioural and emotional difficulties during development and a life-course of poor mental health (Scott,

McLaughlin, Smith, & Ellis, 2012; Afifi et al., 2014 & Taillieu, Brownridge, Sareen, & Afifi, 2016)..In Nepal, existing studies have also shown that child labourers report higher levels of anxiety than those attending school (Alaraudanjoki, 2003). There are also overall higher levels of PTSD symptoms in child soldiers in Nepal (Kohrt, et al., 2016).

Our findings are caveated by a number of limitations. As well as being small in size, the representativeness of our sample to other rescued child labourers is unknown. Although the majority of care-homes who accommodated children and young people rescued from child labour agreed to participate in our study, together with a high response rate among the children and young people approached in these eligible care-homes, we only recruited care-homes in Kathmandu Valley. Thus our findings may not generalise to rescued child labourers from other parts of the country. Additionally, data reported on a sample who had who had worked in particular jobs (domestic workers, factories, hotels), been rescued from economic exploitation, and in care for some time with access to medical doctors and psychologists, as well as academic and vocational educational opportunities, are unlikely to generalise to young people who are *currently* being exploited economically. With 39.1% of school children reported to be employed in child labour in Nepal, it is not known what proportion is rescued. Because of this, our findings can only be interpreted in the context of being rescued and in care – factors that could protect against mental health difficulties. Second, while we did attempt to use standardised measures, well-validated in English and amongst Western populations, we do not know the psychometrics of our translated measures. Unreliability and/or poor validity could explain some aspects of the results. For example, findings of links between childhood maltreatment and psychiatric diagnosis did not generalise to findings on continuous measures of psychopathology, assessed using the SDQ. Here, keyworker reports indicated more problems on the SDQ total score in non-maltreated youth. However internal consistency statistics for many of the SDQ subscales for our translated measure were not acceptable either using self or carer report. Low internal consistency could arise from there being too few items, or that

some items were poorly worded relative to other items for the same sub-scale, affecting its coherence to a common construct. Although the content of our translated measure was not changed relative to the original English version, nonetheless findings using the SDQ should be interpreted cautiously. Similarly, the links between possible psychiatric diagnosis and childhood maltreatment were somewhat different for self versus keyworker reports. Although multi-rater data is preferable to single-rater data in terms of potential reliability, these discrepancies add to difficulties in interpretation. It is unclear whether these discrepancies emerge because parents/carers are less aware of, and therefore less accurate at reporting internalising symptoms such as anxiety and depression, while being more precise at reporting externalising symptoms, such as conduct problems than self-reports. However, for others, such as trauma, psychosis and bipolar disorder, the discrepant results are more difficult to decipher. Future studies should investigate the psychometric properties of these translated measures in community samples as well as in looked after children in Nepal to aid interpretation of findings. Finally, we used a cross-sectional design and relied on retrospective recall of maltreatment. This limits any interpretations of temporal links with psychiatric disturbances and memory biases may serve to over and under-estimate events and their nature.

In summary, these data are amongst the first to report the presence, frequency and nature of childhood maltreatment and broader victimisation experiences, and their associations with mental health conditions, in a socially and economically marginalised sample. While the prevention of economic exploitation (and associated victimisation experiences) is a long-term goal for Nepal, a short-term intermediate goal could be the provision routine screens for mental health problems in this sample and early referral routes to prevent lifelong effects on mental health. This is particularly true for conditions linked to maltreatment histories such as anxiety, depression, trauma and conduct disorders to name a few of the more common and debilitating conditions noted in this sample. However given, the limited resources of developing countries such as Nepal, this can be challenging to governments in terms of allocating funds and implementing policies. In Nepal, 3% of the national budget is allocated to health, out

of which 1% is allocated to mental health (Jordans, et al., 2007). While the current care-homes provided access to medical doctors and psychologists, it is unclear whether these are sufficient to protect against the negative impact of childhood maltreatment and victimisation experiences on psychiatric disorders. Second, more generally there are few evidence-based interventions that can be used to effectively target mental health problems in young people with a history of childhood maltreatment. Recent approaches to address this gap have advocated identifying latent vulnerability factors that mediate between early life adversity and psychiatric outcomes (McCrory, Gerin & Viding, 2017). However, more studies are needed to assess any experimental interventions that are developed on this basis. Before these policy and clinical implications are realised, these findings need to be replicated in larger, longitudinal studies with validated measures.

Tables

Table 1: Victimization in relation to gender and age group

Type of abuse /Victimization	**Total sample (N=103)**	**Gender**			**Age Group**		
		Male (N=38)	**Female (N=65)**	**Chi-square**	**12-14yrs (N=45)**	**15-18yrs (N=58)**	**Chi-square**
Physical Abuse	48 (46.6%)	20 (52.6%)	28 (43.1%)	1.04	19 (42.2%)	29 (50 %)	0.67
Emotional Abuse	42 (40.77%)	14 (36.8%)	28 (43.1%)	0.45	20 (44.4%)	22 (37.9%)	0.59
Sexual Victimisation	28 (27.2%)	4 (10.5 %)	24 (36.9%)	**14.08 ** **	5 (11. 1%)	23 (49.7%)	**24. 93 ** **
Neglect	34 (33%)	6 (15.8%)	28 (43.1%)	**12.36 ** **	12 (26.7%)	22 (37.9%)	1.86
Conventional Crime	96 (93.2%)	37 (97.4%)	59 (90.8%)	0.19	41 (91.1%)	55 (94.8%)	0.09
Witnessing/ Indirect Victimisation	90 (87.4%)	36 (94.7%)	54 (83.1%)	0.81	39 (86.7%)	51 (87.9%)	0.01

* $p < .05$

** $p < .01$

Table 2: Numbers of participants meeting criteria for various DSM-IV diagnoses in relation to gender and age group

Disorder	Youth Self-report YI-4R							Keyworker (carer) report ASI						
	Whole sample (N=103)	Gender			Age Group			Whole sample (N=103)	Gender			Age Group		
		Male (N=38)	Female (N=65)	Chi-square	12-14yrs (N=45)	15-18yrs (N=58)	Chi-square		Male (N=38)	Female (N=65)	Chi-square	12-14yrs (N=45)	15-18yrs (N=58)	Chi-square
Schizophrenia	8 (7.8%)	1	7	2.22	4	4	0.14	0 (0%)	0	0	-	0	0	-
Bipolar Disorder	6 (5.8%)	1	5	1.12	2	4	0.28	4 (3.9%)	1	3	0.25	1	3	0.59
Major depressive disorder	7 (6.8%)	0	7	**4.39***	1	6	2.64	3 (2.9%)	0	3	1.81	1	2	0.14

Generalised anxiety disorder	10 (9.7%)	1	9	3.44	4	6	0.06	1 (1%)	1	0	1.73	0	1	0.78
Social Phobia	31 (30.1%)	11	20	0.04	12	19	0.45	1 (1%)	1	0	1.73	1	0	1.30
Separation Anxiety	28 (27.2%)	11	17	0.10	12	16	0.01	7 (6.8%)	2	5	0.22	3	4	0.002
Specific Phobia	37 (35.9%)	11	26	1.27	14	23	0.80	22 (21.4%)	5	17	2.41	8	14	0.61
Panic Attack	26 (25.2%)	8	18	0.56	13	13	0.56	16 (15.5%)	3	13	2.68	5	11	1.91
Post-traumatic stress disorder	19 (18.4%)	3	16	**4.46***	4	15	4.85*	52 (50.5%)	17	35	0.80	20	32	1.17

Obsessions	18 (17.5%)	4	14	2.02	8	10	.01	22 (21.4%)	6	16	1.11	11	11	0.45
Compulsions	9 (8.7%)	3	6	0.05	3	6	0.43	13 (12.6%)	5	8	0.02	7	6	0.62
ADHD (combined)	1 (1%)	0	1	0.59	1	0	1.30	1 (1%)	1	0	1.73	0	1	0.78
Conduct Disorder	7 (6.8%)	4	3	1.32	4	3	0.55	9 (8.7%)	8	1	11.45**	7	2	4.66*
Oppositional Defiance Disorder	6 (5.8%)	1	5	1.12	4	2	1.37	7 (6.8%)	4	3	1.32	5	2	2.35
Motor Tics	9 (8.7%)	2	7	0.91	3	6	0.43	22 (21.4%)	9	13	0.19	9	13	0.09

Vocal Tics	7 (6.8%)	4	3	1.32	2	5	0.70	19 (18.4%)	9	10	1.10	8	11	0.02
Anorexia	7 (6.8%)	3	4	0.10	4	3	0.52	2 (1.9%)	1	1	0.15	2	0	2.63
Bulimia	8 (7.8%)	3	5	0.001	3	5	0.14	4 (3.9%)	1	3	0.25	2	2	0.07
Substance Use	7 (6.8%)	4	3	1.32	6	1	5.39*	-	-	-	-	-	-	-

Table 3: SDQ subscale means and standard deviation

	Means (SDs)	
	Self-reports	Keyworker-reports
Emotional Problems	3.70 (2.37)	2.43 (1.77)
Conduct Problems	2.31 (1.68)	2.73 (2.00)
Hyperactivity/Inattention	2.33 (1.41)	3.15 (1.85)
Peer Problems	2.80 (1.91)	2.48 (1.44)
Pro-social behaviour	8.55 (1.67)	7.46 (2.32)
Total Difficulties	11.14 (5.37)	10.78 (4.92)

Funding acknowledgements

This work was supported by the UK Medical Research Council (MR/N006194/1) and the Department of Biotechnology, India (BT/IN/DBT-MRC/DFID/20/RP/2015-16).

Declaration of conflicting interest

The Authors declare that there is no conflict of interest

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