BMJ Open

Comparative relationships between physical and verbal abuse of children, life course mental well-being and trends in exposure: a multi-study secondary analysis of cross-sectional surveys in England and Wales

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To cite: Bellis MA, Hughes K, Ford K, *et al*. Comparative relationships between physical and verbal abuse of children, life course mental well-being and trends in exposure: a multi-study secondary analysis of cross-sectional surveys in England and Wales. *BMJ Open* 2025;**15**:e098412. doi:10.1136/bmjopen-2024-098412

► Prepublication history and additional supplemental material for this article are available online. To view these files, please visit the journal online (https://doi.org/10.1136/bmjopen-2024-098412).

Received 23 December 2024
Accepted 04 June 2025

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ABSTRACT

Objectives To test associations between mental well-being across the life course and exposure to childhood physical and/or verbal abuse.

Design Secondary analysis of combined data from seven cross-sectional general adult population surveys measuring childhood experience of physical and/or verbal abuse and current mental well-being.

Setting Households across England and Wales.

Participants 20 687 residents in England and Wales aged 18 years or over.

Measures Self-reported childhood physical and verbal abuse using questions from an Adverse Childhood Experiences tool. Individual and combined components of adult mental well-being measured using the short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS).

Results Exposure to either childhood physical abuse or verbal abuse was associated independently with a similar significant increase in likelihood of low adult mental well-being, with exposure to both abuse types compounding increases (adjusted ORs 1.52, 1.64, 2.15 respectively, reference category: neither abuse type). Individual components of mental well-being showed similar associations, with adjusted prevalence of never or rarely having felt close to people in the last 2 weeks rising from 7.7% (neither abuse type) to 9.9% (physical abuse), 13.6% (verbal abuse) and 18.2% (both types of abuse). Within sample trends showed a significant drop in the prevalence of child physical abuse from around 20% in those born from 1950 to 1979 to 10% in those born in 2000 or after. However, verbal abuse rose from 11.9% in those born before 1950 to nearly 20% in those born in 2000 or after.

Conclusion Exposure to childhood physical or verbal abuse have similar associations with lower mental well-being during adulthood. Interventions to reduce child abuse, including physical chastisement, should consider both physical and verbal abuse and their individual and combined consequences to life course health. The potential role of childhood verbal abuse in escalating levels of poor mental health among younger age groups needs greater consideration.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ Analyses are based on a large number of individuals sampled through surveys structured to collect a representative sample from each target population.
⇒ Compliance rates were comparable to other surveys of childhood abuse, but analyses could not account for any potential bias introduced by the absence of individuals who declined to participate.
⇒ Questions used to measure child abuse and adult mental well-being are based on validated tools.
⇒ Analyses rely on self-reported measures of child abuse and current mental well-being and may be affected by recall, reluctancy to disclose and other reporting issues.

INTRODUCTION

Globally, one in six children are estimated to suffer physical abuse within domestic and family relationships.[1] As well as immediate health risks associated with the physical trauma of abuse,[2] physical abuse can have lifelong impacts on mental and physical health and well-being.[3] Thus, even as adults, individuals who have been physically abused as children show higher levels of anxiety and depression as well as more problematic alcohol and drug use.[4–6] Individuals exposed to childhood physical abuse are more likely to engage in other risk-related behaviours such as early sexual activity (with related teenage pregnancy[7]) and violence towards others.[8 9] Physical abuse as a child has also been linked with higher risks of earlier development of cancers, cardiovascular disease, and some forms of diabetes.[10–12]

Verbal abuse is when someone uses their words to assault, dominate, ridicule,

manipulate, and/or degrade a person and is often a means of controlling and maintaining power over them.[13] As a source of toxic stress, verbal abuse, like physical abuse, may affect the neurobiological development of children, leading to immediate and long-term impacts on health and well-being.[14 15] Verbal abuse is typically considered as an aspect of emotional abuse (or psychological abuse), which impacts around one in three children globally,[16] with national studies suggesting prevalence is high across low-, middle-, and high-income countries (eg, Vietnam, 43%; India, 22%; Brazil, 24%; USA, 38%[17]). Like physical abuse, verbal abuse (as a key aspect of emotional abuse) has also been linked with poor mental and physical health outcomes during childhood and across the life course.[3 13 18 19] For example, in a study of adults in Finland, those exposed to severe childhood verbal abuse (ie, hurtful and insulting comments) were more than three times as likely to have clinical levels of depression and anxiety compared with those with less severe or no childhood verbal abuse.[20] Exposure to verbal abuse as a child has also been linked with lower mental well-being, higher levels of alcohol and cannabis use, and greater involvement in violence during adulthood.[21]

Over recent decades, multiple national and international policy developments have aimed to identify and reduce violence against children. Notably, such measures include the UN Sustainable Development Goals (SDGs), which include a target to end all violence against children (Target 16.2).[22] With much violence against children committed by parents and caregivers, an indicator of progress towards this target is the proportion of children who experienced physical punishment or psychological aggression by caregivers. Accordingly, an increasing number of governments are acting to prevent the physical abuse of children including through legislating to ban corporal punishment of children (eg, Ireland, Japan, Zambia, Colombia, Lithuania, France, South Africa, Wales[23]). However, despite the high prevalence of verbal abuse, policies and interventions to prevent violence against children have tended to focus on physical abuse, with the potential impact of verbal abuse being discounted or overlooked.[13]

Increasingly, empirical evidence supports verbal abuse causing damage to child development. However, understanding of the immediate and lifelong harms to health that may result from verbal abuse is less well developed than for other forms of child abuse such as physical abuse. Consequently, empirical studies comparing the impact of physical abuse and verbal abuse on life course health and well-being are required to inform policy makers and other professionals about both forms of abuse and to ensure verbal abuse is appropriately reflected in policy and public health strategies. Equally, a greater public understanding of harms associated with verbal abuse is important to ensure, for instance, that parents and caregivers aiming to reduce physical abuse understand the harms associated with verbal abuse and do not switch from one to the other.[13] Limited data already suggests that the prevalence of physical abuse is reducing while that of verbal abuse is increasing.[13] Moreover, for some children, exposure to a combination of physical abuse and verbal abuse is a routine occurrence. Consequently, it is also important to understand how such combined exposure may cumulatively impact risks of harms to health and well-being across the life course.

Here, we combine data from multiple studies measuring child abuse across England and Wales. We test the associations with poorer mental well-being across the life course with experiencing physical abuse or verbal abuse as a child individually as well as the impact associated with combined exposure to both abuse types. Finally, we examine temporal trends in self-reported verbal abuse and physical abuse and related impacts on poorer mental well-being which may be associated with changes in levels of abuse.

METHODS

Data from seven cross-sectional ACE studies undertaken across England and Wales between 2012 and 2024 were combined. Online supplemental appendix table 1 provides a summary of each study. One study was conducted online, five were conducted face to face at participants' households, while one used a mixed methodology of online and face to face. Four used nationally representative samples and three used locally representative samples in English administrative areas. All household surveys used stratified sampling approaches to obtain either a random probability or quota sample representative of the area studied. Six face to face studies used lower super output areas (LSOAs; small geographical areas with a mean population of 1500) as the sampling unit. LSOAs within each study area were categorised by quintile of deprivation using the English[24] or Welsh[25] Indices of Multiple Deprivation. Where relevant, sample selection was stratified by geographical region (see online supplemental table 1) then deprivation quintile, and households in sampled LSOAs were randomly selected for inclusion. Four studies sent selected households letters containing study information, and to allow residents to opt-out. In the six studies which included face to face interviews, data collection was undertaken by a professional market research company using computer-assisted personal interviewing, with sensitive questions completed using computer-assisted self-interview. The remaining study was conducted online with participants recruited via an online panel (individuals paid to participate in online research) and targeted to represent national demographics in England and Wales by age and gender.

All studies received ethical approval. The inclusion criteria for all studies were: resident in the study area, within the individual study age range (18–69, 18–70 or 18+ years; see online supplemental table 1), and cognitively able to participate. In all studies, potential participants were informed of the purpose of the study

including its voluntary, anonymous, and confidential nature. All participants provided informed consent which was recorded electronically. Following participation, all individuals were provided with details on appropriate support services. Participation rates across the six household surveys were between 49% and 70% (online supplemental table 1). It was not possible to measure participation rates for the online surveys. The total sample across all seven studies was 22 395 (online supplemental table 1). To accommodate missing data, we used a listwise deletion methodology to exclude any individuals without necessary data for inclusion in all analyses (7.6%). This resulted in a final sample for analysis of 20 687.

All study measures were self-reported. Surveys used the Centers for Disease Control and Prevention short ACE tool questions[26] to measure exposure to different forms of violence during childhood, including physical abuse, verbal abuse, sexual abuse, and exposure to domestic violence before the age of 18 years. Three studies conducted since 2022 used an adapted question to measure sexual abuse. Online supplemental table 2 includes the full questions used across studies. Mental well-being was measured in all studies using the Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS), which asks individuals how often over the past 2 weeks they have been: feeling optimistic about the future; feeling useful; feeling relaxed; dealing with problems well; thinking clearly; feeling close to other people; able to make up their own mind about things.[27] Responses for the seven items are scored from 1 (none of the time) to 5 (all of the time), and in line with guidance[28] scores were summed and transformed to a metric score. Low mental well-being was classified within each study as scores of more than one standard deviation (SD) below the mean. Participants reported their age, sex and ethnicity using UK census categories. In the online study, participants reported their residential postcode, which was categorised to its corresponding deprivation quintile. As studies were undertaken across a range of years, for the purposes of analysis age at survey was converted into birth period (decade). As age category at survey and birth period are so highly correlated (Pearson's R^2=0.908, p<0.001) only birth period is used in the analyses. Exposure to childhood abuse (physical abuse and verbal abuse) was categorised as neither, physical abuse only, verbal abuse only, and both physical abuse and verbal abuse. Due to small numbers within some ethnic groupings, ethnicity was re-categorised into White (White British; White Other), Asian (Asian or Asian British), and Other (Black, African, Caribbean or Black British; Mixed or multiple ethnicity; other ethnicity not specified in White and Asian categories). Numbers of individuals in all independent variable categories are provided in online supplemental table 3.

Statistical analyses comprised Chi-squared tests and binary logistic regression (LR). LR was employed to assess the independent associations between exposure to verbal abuse, physical abuse, and selected outcome variables, adjusting for demographic covariates and co-occurring abuse types. Adjusted odds ratios (AORs) were derived to quantify the increased likelihood of each outcome associated with verbal abuse, physical abuse, or combined abuse exposure. For comparative purposes, AORs were also calculated for other covariates (see table 2).

Final LR models were used to generate estimated marginal means (EMMs); adjusted predicted outcome probabilities based on exposure profiles to verbal abuse and physical abuse. EMMs represent the estimated percentage response at each level of the independent variables, standardised across covariates in the model, thus accounting for potential confounding effects. The 95% confidence intervals (CIs) for all EMMs are presented in the respective figures. All Chi-squared analyses, LRs, and multivariate modelling procedures were conducted using the General Linear Model (GLM) framework in SPSS version 29.

Patient and public involvement

The study did not involve patients. Study findings were made publicly available to participants and the general public through the production of study reports and open access journal articles.

RESULTS

For the purposes of examining the relationships between individual and combined childhood physical abuse and verbal abuse, and different mental well-being measures, individuals were classified as having experienced neither childhood physical abuse or verbal abuse (neither abuse type), physical abuse only, verbal abuse only, and both childhood physical abuse and verbal abuse. Outcomes are presented for individual measures of mental well-being (SWEMWBS components) and overall low mental well-being (see Methods). In alignment with the aims of this article, the results sub-sections first consider mental well-being measures as the dependent outcomes and test (i) physical abuse and verbal abuse as predictors of mental well-being outcomes, then (ii) demographic and other factors as predictors of mental well-being. A final results sub-section considers physical abuse and verbal abuse as the dependent outcomes and examines (iii) birth cohort and other predictors of physical abuse and verbal abuse.

Physical abuse and verbal abuse as predictors of mental well-being outcomes

Proportions reporting feeling optimistic none of the time (ie, never) or rarely in the last 2 weeks increased with both abuse types, with the highest proportions in those experiencing both childhood physical abuse and verbal abuse (table 1). LR analysis was used to calculate increases in likelihood of each mental well-being outcome independent of other variables in the model (see Methods). Compared with those with no history of verbal abuse or physical abuse, likelihood of never or rarely feeling optimistic increased 1.47 times with a history of physical abuse only, 1.53 times with verbal abuse only, and 2.12

Table 1 Associations between individual components and overall low mental well-being with exposure to childhood physical and/or verbal abuse including socio-demographic factors

	In the last 2 weeks, never or rarely been:*							
	Feeling optimistic about the future	Feeling useful	Feeling relaxed	Dealing with problems well	Thinking clearly	Feeling close to other people	Able to make up their own mind	Overall LMWB
All	14.5	10.3	15.1	8.2	5.4	8.0	3.8	15.8
Childhood abuse*								
Neither	12.3	8.3	12.4	6.5	4.1	5.8	3.0	12.8
Physical	17.1	12.5	17.0	7.9	6.6	8.1	3.6	20.0
Verbal	18.5	13.6	21.8	12.1	6.4	13.1	4.7	21.0
Physical and verbal	25.1	20.1	26.8	16.4	12.2	19.1	8.4	29.6
P	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Birth period								
2000+	19.0	14.8	20.1	14.5	12.0	10.5	9.2	19.1
1990–99	14.3	11.9	17.7	10.8	7.2	9.8	5.0	16.0
1980–89	12.3	9.3	17.2	8.9	5.4	8.8	3.8	15.4
1970–79	12.3	9.6	15.7	8.0	5.2	7.2	3.4	16.3
1960–69	15.8	9.7	15.7	7.8	5.5	8.3	3.9	17.8
1950–59	16.9	9.9	11.7	6.3	3.9	6.8	2.9	14.4
Pre 1950	16.0	11.5	8.9	5.1	3.0	6.3	2.0	13.1
P	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sex								
Male	15.2	10.9	12.5	7.9	4.9	8.8	3.8	15.3
Female	14.0	9.8	17.2	8.4	5.8	7.4	3.8	16.3
P	0.012	0.011	<0.001	0.195	0.005	<0.001	0.863	0.060
Ethnicity								
White	14.8	10.6	15.4	8.1	5.4	8.2	3.8	15.9
Asian	11.6	6.8	12.1	8.0	4.2	6.7	4.1	13.9
Other	14.8	10.0	13.4	9.9	6.2	8.1	3.3	17.6
P	0.002	<0.001	<0.001	0.152	0.055	0.109	0.607	0.032
Deprivation quintile								
Most, 5	17.8	13.5	17.0	10.0	7.4	10.0	4.7	21.2
4	15.8	11.3	16.4	9.6	6.4	9.1	4.6	17.2
3	14.1	9.6	14.8	8.0	5.0	7.1	3.4	14.5
2	13.2	8.5	14.1	6.9	4.1	7.0	3.3	13.5
Least, 1	10.5	7.3	12.4	5.8	3.2	6.4	2.5	10.7
P	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Childhood sexual abuse								
No	14.0	9.7	14.2	7.6	4.8	7.4	3.5	14.9
Yes	21.6	18.0	27.5	15.9	13.0	17.2	8.1	28.9
P	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Domestic violence								
No	13.5	9.2	13.7	7.2	4.5	6.9	3.2	14.0
Yes	20.5	16.2	22.9	14.0	10.0	14.5	7.0	26.0
P	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Continued

Table 1 Continued

	In the last 2 weeks, never or rarely been:*							
	Feeling optimistic about the future	Feeling useful	Feeling relaxed	Dealing with problems well	Thinking clearly	Feeling close to other people	Able to make up their own mind	Overall LMWB
Country								
Wales	21.1	14.8	20.7	11.1	7.8	11.0	5.5	15.4
England	12.7	9.0	13.5	7.4	4.7	7.2	3.3	15.9
P	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.389
Study								
E 2024	11.4	9.6	12.0	7.0	5.6	6.0	3.6	16.5
W 2023	32.6	17.9	27.0	12.0	8.8	9.9	6.1	16.3
EW 2022	22.2	18.8	23.8	16.3	10.0	20.8	8.3	15.4
E 2015	11.4	7.7	12.8	7.3	4.0	7.6	2.7	14.2
W 2015	8.9	8.8	11.4	7.2	5.0	7.3	3.4	13.7
E 2013	12.8	8.4	14.6	6.2	3.5	5.3	2.5	17.1
E 2012	15.3	8.8	13.9	7.4	5.4	7.0	3.7	19.0
P	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

*For full questions see online supplemental table 2. P values are calculated using χ squared statistics.
E, England; EW, England and Wales; LMWB, low mental well-being; W, Wales.

times with a history of both (table 2). Using the same model to calculate adjusted means (see Methods), never or rarely feeling optimistic increased from a baseline of 14.2% (among people who experienced neither physical abuse or verbal abuse) to 19.6% for physical abuse, 20.2% for verbal abuse, and 26.0% in those with both physical abuse and verbal abuse (see figure 1 for CIs). Never or rarely feeling useful and never or rarely feeling relaxed showed similar relationships with child abuse, with increased likelihood in those reporting childhood verbal abuse or physical abuse individually and a higher increase for those reporting exposure to both (tables 1 and 2). Thus, adjusted proportions reporting never or rarely feeling useful in the last 2 weeks increased from 10.0% with neither child abuse type to 19.3% when both childhood physical abuse and verbal abuse occurred (see figure 1 for CIs).

Although never or rarely dealing with problems well, thinking clearly, or being able to make up their own mind all showed some increase in occurrence depending on exposure to types of abuse (table 1), not all increases (from neither abuse type) were significant after accounting for other factors. Thus, in LR analysis exposure to physical abuse alone did not significantly increase the likelihood of never or rarely dealing with problems well, while verbal abuse alone was not significantly related to likelihood of thinking clearly (table 2). While neither type of abuse alone was related to never or rarely being able to make up their own mind, their combined relationship was highly significant (table 2), with adjusted proportions increasing from 4.8% (neither abuse type) to 8.4% (both physical abuse and verbal abuse; see figure 1 for CIs).

Never or rarely feeling close to other people showed significant associations with physical abuse and verbal abuse alone and in combination (tables 1 and 2). Modelled estimates of never or rarely feeling close to other people increased from a baseline of 7.7% (among people who experienced neither physical abuse or verbal abuse) to 9.9% for physical abuse, 13.6% for verbal abuse, and 18.2% in those with both physical abuse and verbal abuse (see figure 1 for CIs).

Using LR, odds of overall low mental well-being in the last 2 weeks, again independent of the other variables in the model, were 1.64, 1.52, and 2.15 times higher respectively with reported verbal abuse, physical abuse, and both types combined (reference category, neither abuse type, table 2). Thus, adjusted means for low mental well-being increased from 16.0% of those with no history of childhood verbal abuse or physical abuse to 22.4% for physical abuse, 23.8% for verbal abuse, and 29.1% in those with both types of abuse respectively (see figure 1 for CIs).

Demographic and other factors as predictors of mental well-being

Birth period was also significantly associated with mental well-being outcomes. Those born in or after 2000 had higher likelihoods of all individual poor mental well-being components as well as overall low mental well-being (table 2). However, those born pre-1950 had the highest likelihood of never or rarely feeling useful, and those born pre-1960 of never or rarely feeling optimistic (table 2).

Table 2 Adjusted odds ratios (AORs) for each component and overall low mental well-being with childhood physical and/or verbal abuse and demographics

	In the last 2 weeks, never or rarely been:							
	Feeling optimistic about the future	Feeling useful	Feeling relaxed	Dealing with problems well	Thinking clearly	Feeling close to other people	Able to make up their own mind	Overall LMWB
	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P
Childhood abuse								
Physical and verbal	2.12 (1.86 to 2.42)***	2.15 (1.86 to 2.49)***	2.01 (1.77 to 2.29)***	1.90 (1.62 to 2.23)***	2.00 (1.65 to 2.42)***	2.69 (2.30 to 3.14)***	1.82 (1.46 to 2.28)***	2.15 (1.90 to 2.44)***
Verbal	1.53 (1.33 to 1.76)***	1.48 (1.27 to 1.74)***	1.62 (1.42 to 1.85)***	1.52 (1.29 to 1.80)***	1.19 (0.95 to 1.48)ns	1.90 (1.61 to 2.24)***	1.15 (0.89 to 1.48)ns	1.64 (1.44 to 1.87)***
Physical	1.47 (1.25 to 1.73)***	1.48 (1.23 to 1.78)***	1.53 (1.30 to 1.80)***	1.14 (0.91 to 1.42)ns	1.46 (1.14 to 1.87)**	1.33 (1.06 to 1.66)*	1.04 (0.75 to 1.43)ns	1.52 (1.30 to 1.77)***
Neither (Ref) P	***	***	***	***	***	***	***	***
Birth period								
Pre-1950	1.18 (0.93 to 1.49)ns	1.13 (0.87 to 1.46)ns	0.47 (0.37 to 0.60)***	0.44 (0.33 to 0.59)***	0.33 (0.23 to 0.46)***	0.89 (0.65 to 1.22)ns	0.30 (0.20 to 0.45)***	0.69 (0.54 to 0.87)**
1950–59	1.18 (0.94 to 1.48)ns	0.88 (0.69 to 1.14)ns	0.60 (0.48 to 0.76)***	0.51 (0.39 to 0.67)***	0.39 (0.29 to 0.53)***	0.89 (0.66 to 1.19)ns	0.40 (0.28 to 0.56)***	0.74 (0.59 to 0.92)**
1960–69	1.08 (0.87 to 1.35)ns	0.84 (0.66 to 1.07)ns	0.85 (0.68 to 1.05)ns	0.61 (0.47 to 0.78)***	0.54 (0.41 to 0.72)***	1.02 (0.77 to 1.36)ns	0.52 (0.38 to 0.71)***	0.92 (0.74 to 1.14)ns
1970–79	0.76 (0.61 to 0.95)*	0.81 (0.63 to 1.04)ns	0.82 (0.66 to 1.01)ns	0.59 (0.46 to 0.76)***	0.49 (0.37 to 0.65)***	0.81 (0.61 to 1.09)ns	0.42 (0.30 to 0.59)***	0.79 (0.64 to 0.99)*
1980–89	0.73 (0.58 to 0.91)**	0.73 (0.57 to 0.93)*	0.90 (0.72 to 1.11)ns	0.63 (0.50 to 0.81)***	0.48 (0.36 to 0.63)***	0.93 (0.71 to 1.24)ns	0.45 (0.33 to 0.61)***	0.74 (0.59 to 0.91)**
1990–99	0.80 (0.64 to 1.00)ns	0.87 (0.68 to 1.11)ns	0.88 (0.71 to 1.09)ns	0.73 (0.57 to 0.94)*	0.61 (0.46 to 0.81)***	0.95 (0.72 to 1.27)ns	0.55 (0.40 to 0.75)***	0.79 (0.63 to 0.98)*
2000+ (Ref) P	***	***	***	***	***	ns	***	***
Sex								
Female	0.89 (0.82 to 0.97)**	0.86 (0.78 to 0.94)**	1.40 (1.29 to 1.52)***	1.01 (0.91 to 1.12)ns	1.11 (0.98 to 1.26)ns	0.77 (0.69 to 0.86)***	0.95 (0.82 to 1.11)ns	1.04 (0.96 to 1.13)ns
Ethnicity								
Other	1.02 (0.84 to 1.24)ns	0.88 (0.70 to 1.11)ns	0.74 (0.61 to 0.90)**	1.08 (0.86 to 1.36)ns	0.98 (0.74 to 1.30)ns	0.89 (0.69 to 1.14)ns	0.77 (0.53 to 1.12)ns	0.96 (0.80 to 1.15)ns
Asian	0.85 (0.72 to 1.00)ns	0.69 (0.56 to 0.85)***	0.77 (0.65 to 0.90)**	0.99 (0.81 to 1.20)ns	0.80 (0.61 to 1.04)ns	0.82 (0.66 to 1.02)ns	1.18 (0.90 to 1.55)ns	0.80 (0.69 to 0.94)*
White (Ref) P	ns	**	***	ns	ns	ns	ns	*

Continued

Table 2 Continued

	In the last 2 weeks, never or rarely been:							
	Feeling optimistic about the future	Feeling useful	Feeling relaxed	Dealing with problems well	Thinking clearly	Feeling close to other people	Able to make up their own mind	Overall LMWB
	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P	AOR (95% CI) P
Deprivation quintile								
Most, 5	2.20 (1.92 to 2.53)***	2.27 (1.94 to 2.66)***	1.59 (1.39 to 1.82)***	1.91 (1.61 to 2.28)***	2.32 (1.86 to 2.89)***	2.01 (1.69 to 2.39)***	1.90 (1.47 to 2.46)***	2.23 (1.95 to 2.55)***
4	1.69 (1.47 to 1.95)***	1.66 (1.42 to 1.95)***	1.38 (1.21 to 1.58)***	1.68 (1.41 to 2.00)***	1.94 (1.55 to 2.44)***	1.51 (1.27 to 1.80)***	1.80 (1.39 to 2.34)***	1.75 (1.53 to 2.00)***
3	1.45 (1.26 to 1.67)***	1.35 (1.14 to 1.59)***	1.23 (1.08 to 1.41)**	1.36 (1.13 to 1.63)***	1.50 (1.18 to 1.89)***	1.14 (0.95 to 1.37)ns	1.31 (1.00 to 1.73)*	1.44 (1.26 to 1.66)***
2	1.31 (1.14 to 1.52)***	1.18 (0.99 to 1.39)ns	1.16 (1.01 to 1.33)*	1.19 (0.99 to 1.43)ns	1.25 (0.98 to 1.60)ns	1.13 (0.94 to 1.36)ns	1.31 (1.00 to 1.73)ns	1.31 (1.14 to 1.51)***
Least, 1 (Ref) P	***	***	***	***	***	***	***	***
Sexual abuse								
Yes	1.31 (1.14 to 1.52)***	1.49 (1.27 to 1.74)***	1.59 (1.39 to 1.82)***	1.60 (1.35 to 1.89)***	1.99 (1.65 to 2.40)***	1.73 (1.47 to 2.05)***	1.72 (1.37 to 2.16)***	1.58 (1.39 to 1.81)***
Domestic abuse								
Yes	1.16 (1.03 to 1.30)*	1.20 (1.05 to 1.37)**	1.22 (1.09 to 1.37)***	1.39 (1.20 to 1.60)***	1.40 (1.18 to 1.66)***	1.24 (1.07 to 1.43)**	1.52 (1.24 to 1.86)***	1.36 (1.22 to 1.51)***
Country								
Wales	1.02 (0.81 to 1.29)ns	1.34 (1.04 to 1.71)*	1.31 (1.04 to 1.64)*	1.28 (0.98 to 1.66)ns	1.42 (1.02 to 1.96)*	1.21 (0.95 to 1.54)ns	1.14 (0.80 to 1.62)ns	1.25 (0.96 to 1.63)ns
Study								
E 2024	0.66 (0.55 to 0.79)***	1.00 (0.80 to 1.24)ns	0.79 (0.65 to 0.95)*	0.89 (0.70 to 1.13)ns	0.89 (0.67 to 1.17)ns	0.81 (0.63 to 1.04)ns	0.90 (0.65 to 1.26)ns	0.78 (0.66 to 0.92)**
W 2023	3.17 (2.35 to 4.27)***	1.99 (1.42 to 2.79)***	2.04 (1.51 to 2.75)***	1.57 (1.09 to 2.26)*	1.37 (0.88 to 2.12)ns	1.49 (1.04 to 2.14)*	1.73 (1.05 to 2.83)*	0.79 (0.57 to 1.10)ns
EW 2022	1.80 (1.43 to 2.26)***	2.30 (1.76 to 3.00)***	1.51 (1.20 to 1.90)***	2.02 (1.52 to 2.69)***	1.51 (1.06 to 2.13)*	3.36 (2.54 to 4.45)***	2.07 (1.40 to 3.05)***	0.70 (0.55 to 0.89)**
E 2015	0.91 (0.76 to 1.10)ns	1.15 (0.92 to 1.43)ns	1.10 (0.92 to 1.32)ns	1.25 (0.99 to 1.59)ns	0.95 (0.71 to 1.27)ns	1.48 (1.16 to 1.89)**	0.94 (0.67 to 1.32)ns	0.92 (0.78 to 1.09)ns
W 2015	0.58 (0.42 to 0.80)***	0.81 (0.57 to 1.16)ns	0.65 (1.48 to 0.89)*	0.84 (0.57 to 1.23)ns	0.72 (0.45 to 1.14)ns	0.94 (0.65 to 1.36)ns	0.89 (0.53 to 1.50)ns	0.60 (0.43 to 0.84)**

Continued

Table 2 Continued

	In the last 2 weeks, never or rarely been:									
	Feeling optimistic about the future		Feeling useful		Feeling relaxed		Dealing with problems well		Thinking clearly		Feeling close to other people		Able to make up their own mind		Overall LMWB	
	AOR (95% CI)	P	AOR (95% CI)	P	AOR (95% CI)	P	AOR (95% CI)	P	AOR (95% CI)	P	AOR (95% CI)	P	AOR (95% CI)	P	AOR (95% CI)	P
E 2013	0.95 (0.79 to 1.14)^{ns}		1.12 (0.89 to 1.40)^{ns}		1.21 (1.01 to 1.46)*		0.99 (0.77 to 1.27)^{ns}		0.76 (0.56 to 1.02)^{ns}		0.90 (0.69 to 1.16)^{ns}		0.83 (0.58 to 1.19)^{ns}		1.05 (0.89 to 1.25)^{ns}	
E 2012 (Ref)	***		***		***		***		***		***		***		***	
P																

(Reference categories: sex=male; Sexual abuse, Domestic abuse=no; Country=England).
P values in Ref rows relate to the overall contribution made by each independent variable to the model.
*<0.050, **<0.010, ***<0.001.
E, England; EW, England and Wales; LMWB, low mental well-being; Ref, reference category; W, Wales.

Males were more likely to report never or rarely feeling optimistic, useful, or close to other people, and females were more likely to report never or rarely feeling relaxed (table 2). Ethnicity was only significantly related to never or rarely feeling useful, never or rarely feeling relaxed, and overall low mental well-being. In all of these cases the highest likelihood of poor outcomes was in those identifying as White (table 2). Other studies have reported White British individuals as having worse mental well-being measures than, for instance, individuals from Asian or Black ethnicities in UK populations.[29 30] We are unable to further analyse such relationships with ethnicity here due to small numbers in each more defined ethnic group (see Methods). Across all individual mental well-being components and the composite low mental well-being measure, higher deprivation was associated with poorer outcomes. Other exposures to violence in childhood (experiencing sexual abuse and witnessing domestic abuse) were both independently linked with a greater risk of poorer individual mental well-being components and overall low mental well-being (table 2). Study membership was also significantly linked with likelihood of poorer mental well-being outcomes (tables 1 and 2).

Birth cohort and other predictors of physical abuse and verbal abuse

Whether individuals reported physical abuse or verbal abuse during childhood was strongly related to birth period. Relationships between birth period and both physical abuse and verbal abuse were highly significant in both bivariate Chi-squared analyses and LR models used to account for socio-demographic and other confounding factors (see Methods; table 3). LR models were used to calculate adjusted means for both types of child abuse for each birth period. Estimated means for physical abuse fell consistently from those born between 1970–79 (20.2%) to 2000 or later (10.0%). By contrast, estimated means for verbal abuse rose from those born pre-1950 (11.9%) to 1970–79 (20.5%) and then remained close to this higher prevalence over subsequent decades (see figure 2 for CIs). In bivariate and LR analyses, males were significantly more likely to report experiencing physical abuse although verbal abuse and both abuse types together showed no significant differences with gender (table 3). Asian ethnicity was associated with lower reports of both child abuse types. Reported physical abuse and verbal abuse were both highest in the most deprived quintile in both bivariate analyses and LR models. Study membership also significantly contributed to likelihood of both types of abuse in childhood (table 3).

DISCUSSION

Child abuse includes any action by another person, adult, or child that causes or is likely to cause significant harm to a child. This study has examined the associations between physical abuse and verbal abuse (a component of emotional abuse) and life course mental well-being.

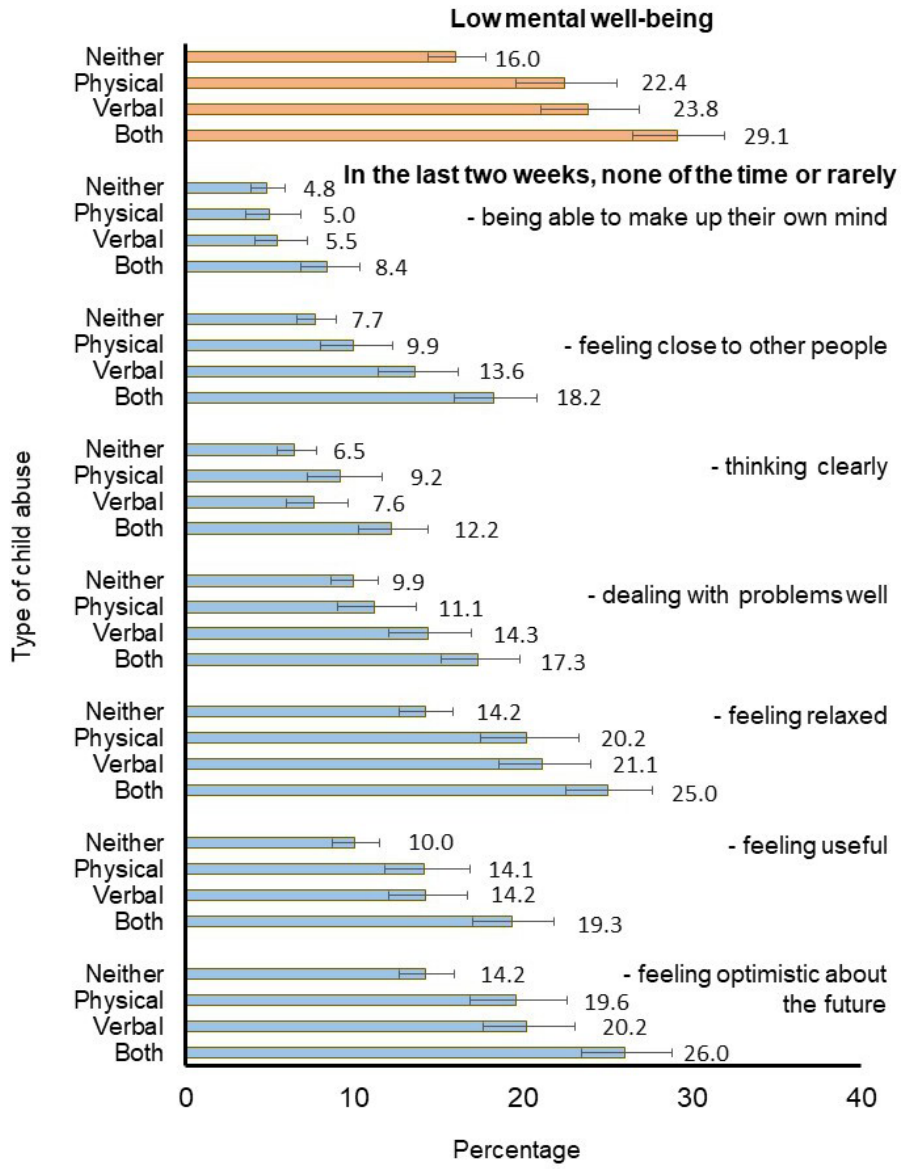

Figure 1 Adjusted percentage of respondents reporting low mental well-being and SWEMWBS components with exposure to childhood abuse. For full questions see online supplemental table 2. Adjusted means are based on models in table 2. See Methods for more details.

Results identify around a 50% increase in likelihood of low mental well-being related to exposure to either physical abuse (AOR 1.52) or verbal abuse (AOR 1.64, table 2). When both are experienced the increase in likelihood of low mental well-being is compounded (AOR 2.15, table 2). Despite political and public focus on physical violence and abuse of children, results here suggest child verbal abuse may have consequences for mental well-being of a similar magnitude. Even when physical abuse is part of the individuals' childhood experiences, those that also experience verbal abuse are exposed to an additional risk, here raising the prevalence of low mental well-being from 22.4% to 29.1% (figure 1). These impacts are independent of other socio-demographic influences on low mental well-being and so will be in addition to risks associated with, for instance, living in greater deprivation (tables 1 and 2). Recent decades have seen a rapid escalation in poorer mental health, especially in young people.[31–33] The potential impact of verbal abuse in such trends should be better considered in policy, and parenting and child protection interventions.

The decomposition of SWEMWBS into its component measures was undertaken to better understand potential differences in relationships between physical abuse, verbal abuse, and life course experiences of low mental well-being. Thus, proportions never or rarely feeling close to other people in the last 2 weeks increased from 7.7% of individuals with no exposure to physical abuse or verbal abuse to 18.2% in those exposed to both (figure 1). The individual contribution of verbal abuse alone increased the likelihood of not feeling close to other people by 90% while physical abuse alone resulted in a smaller 33% increase (table 2). Contributions to likelihood of other components of SWEMWBs were more closely matched

Table 3 Bivariate and logistic regression analyses of relationships between socio-demographic characteristics and self-reported childhood physical and verbal abuse

		Childhood physical abuse			Childhood verbal abuse			Childhood physical and verbal abuse		
	N	%	AOR (95% CI)	P value	%	AOR (95% CI)	P value	%	AOR (95% CI)	P value
All	20687	17.6			19.6			11.3		
Birth period										
Pre-1950	2259	14.9	1.78 (1.39 to 2.28)	<0.001	12.4	0.55 (0.44 to 0.69)	<0.001	7.2	1.08 (0.79 to 1.46)	0.635
1950–59	3080	18.6	2.21 (1.75 to 2.81)	<0.001	14.8	0.66 (0.54 to 0.81)	<0.001	9.6	1.42 (1.07 to 1.89)	0.016
1960–69	3806	18.4	2.15 (1.70 to 2.72)	<0.001	19.0	0.87 (0.72 to 1.06)	0.179	11.4	1.67 (1.27 to 2.21)	<0.001
1970–79	3687	18.7	2.30 (1.82 to 2.90)	<0.001	21.7	1.06 (0.87 to 1.29)	0.585	12.8	1.97 (1.49 to 2.59)	<0.001
1980–89	4247	17.7	2.01 (1.59 to 2.53)	<0.001	22.2	1.01 (0.83 to 1.23)	0.919	12.5	1.75 (1.33 to 2.30)	<0.001
1990–99	2892	17.0	1.75 (1.38 to 2.22)	<0.001	23.4	1.00 (0.82 to 1.21)	0.978	13.0	1.70 (1.29 to 2.24)	<0.001
2000+	716	13.7	Ref	<0.001	24.7	Ref	<0.001	9.4	Ref	<0.001
P		<0.001			<0.001			<0.001		
χ^2		26.387			185.738			71.672		
Sex										
Female	11325	16.2	0.80 (0.74 to 0.86)	<0.001	19.8	0.99 (0.93 to 1.07)	0.857	11.1	0.93 (0.85 to 1.01)	0.093
Male	9362	19.4	Ref		19.4	Ref		11.6	Ref	
P		<0.001			0.437			0.243		
χ^2		36.529			0.605			1.364		
Ethnicity										
Other	940	22.2	1.40 (1.19 to 1.65)	<0.001	19.1	0.85 (0.72 to 1.01)	0.064	14.3	1.25 (1.03 to 1.51)	0.026
Asian	1643	13.4	0.82 (0.70 to 0.95)	0.010	13.6	0.59 (0.51 to 0.69)	<0.001	8.3	0.69 (0.57 to 0.83)	<0.001
White	18104	17.7	Ref	<0.001	20.2	Ref		11.4	Ref	
P		<0.001			<0.001			<0.001		
χ^2		34.261			41.758			22.829		
Deprivation quintile										
Most, 5	5255	20.7	1.26 (1.12 to 1.42)	<0.001	22.2	1.48 (1.32 to 1.67)	<0.001	14.1	1.53 (1.33 to 1.77)	<0.001
4	3914	17.9	1.15 (1.02 to 1.30)	0.025	19.7	1.18 (1.05 to 1.33)	0.007	11.3	1.20 (1.03 to 1.39)	0.019
3	3880	16.7	1.06 (0.94 to 1.20)	0.358	18.5	1.08 (0.96 to 1.22)	0.207	10.9	1.15 (0.99 to 1.34)	0.073
2	3806	16.6	1.05 (0.93 to 1.19)	0.447	19.4	1.16 (1.03 to 1.30)	0.016	9.9	1.04 (0.89 to 1.22)	0.602
Least, 1	3832	15.0	Ref	<0.001	17.2	Ref	<0.001	9.3	Ref	<0.001
P		<0.001			<0.001			<0.001		
χ^2		57.306			40.667			64.620		
Country										

Continued

Table 3 Continued

		Childhood physical abuse			Childhood verbal abuse			Childhood physical and verbal abuse		
	N	%	AOR (95% CI)	P value	%	AOR (95% CI)	P value	%	AOR (95% CI)	P value
Wales	4498	17.3	1.18 (0.94 to 1.47)	0.150	23.7	1.25 (1.02 to 1.52)	0.028	13.4	1.17 (0.92 to 1.48)	0.202
England	16189	17.7	Ref		18.5	Ref		10.7	Ref	
P		0.539			<0.001			<0.001		
χ^2		0.378			61.241			25.798		
Study										
E 2024	4701	24.8	1.90 (1.61 to 2.24)	<0.001	19.0	1.04 (0.89 to 1.22)	0.624	12.7	1.10 (0.91 to 1.33)	0.325
W 2023	1873	13.8	0.82 (0.61 to 1.10)	0.184	17.1	0.81 (0.62 to 1.06)	0.130	9.3	0.74 (0.53 to 1.03)	0.074
EW 2022	1729	24.9	1.93 (1.55 to 2.40)	<0.001	37.9	2.52 (2.06 to 3.08)	<0.001	20.0	1.89 (1.49 to 2.41)	<0.001
E 2015	5269	13.2	0.89 (0.75 to 1.06)	0.195	16.0	1.01 (0.85 to 1.19)	0.931	8.4	0.78 (0.64 to 0.95)	0.014
W 2015	1844	17.3	1.02 (0.76 to 1.37)	0.876	22.9	1.17 (0.90 to 1.54)	0.239	14.3	1.16 (0.84 to 1.59)	0.378
E 2013	3868	14.3	0.95 (0.79 to 1.13)	0.535	17.3	1.05 (0.89 to 1.24)	0.581	8.9	0.79 (0.64 to 0.97)	0.022
E 2012	1403	15.3	Ref	<0.001	17.7	Ref	<0.001	12.0	Ref	<0.001
P		<0.001			<0.001			<0.001		
χ^2		354.617			447.532			229.575		

Physical abuse and verbal abuse categories are not exclusive and include individuals who reported both types of abuse. Physical and verbal abuse includes those reporting both during childhood. P values refer to individual categories by comparison to Reference (Ref) categories. P values in Ref row refer to the overall contribution of variable to the model. No P values are given for Ref rows for binary variables as the individual category and variable P values are the same.
E, England; EW, England and Wales; W, Wales.

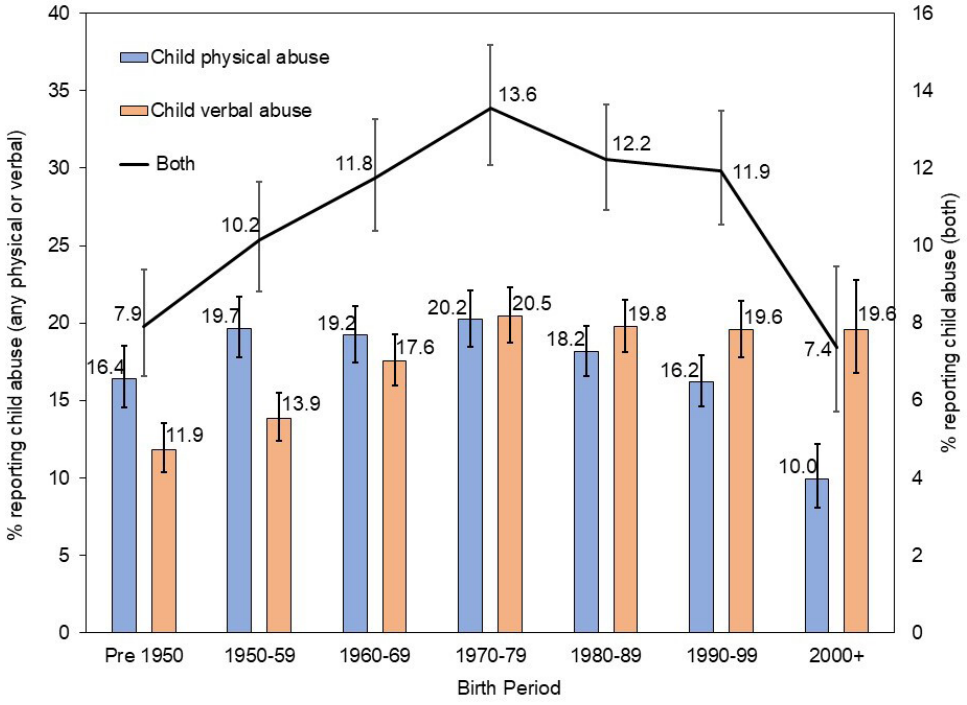

Figure 2 Adjusted percentage reporting any childhood physical abuse, any childhood verbal abuse, or experiencing both physical abuse and verbal abuse. Physical abuse and verbal abuse categories are not exclusive and include individuals who reported both types of abuse. Adjusted means are based on models in table 3. See Methods for more details.

with around a 50% increase in likelihood of never or rarely feeling optimistic in the last 2 weeks for both physical abuse and verbal abuse (AOR 1.47, 1.53 respectively; table 2). These figures are calculated after taking into account other forms of violence which some children may have faced (here sexual abuse and domestic violence), demographics including deprivation, and interstudy effects (see Methods). Recent studies suggest increasing proportions of young people in the UK and elsewhere are reporting mental disorders such as anxiety and depression.[3 31–33] While our study did not directly examine such disorders, depressive symptoms can include feeling isolated and pessimistic. Consequently, childhood exposure to verbal abuse as well as physical abuse should be a consideration when examining such population trends.

The UN's SDG 16 aims to end all forms of violence against and torture of children, including abuse, exploitation, and trafficking (SDG Target 16.2[22]). The most common source of child abuse is from a child's parent or carers.[34] While the majority of countries have laws that prevent child physical abuse, many have exceptions relating to corporal punishment where children are struck as a form of discipline or punishment.[23 35] However, corporal punishment is a form of violence against children[36] and is associated with victims having an increased risk of mental health problems, aggression, and antisocial behaviour.[37 38] Corporal (or physical) punishment has been defined as "any punishment in which physical force is used and intended to cause some degree of pain or discomfort, however light",[36] but is often accompanied by parental verbal aggressiveness.[39] Physical punishment in UK state schools was made illegal in 1987 and all corporal physical punishment (including at home) was made illegal in Wales in 2022.[40] In England, reasonable physical punishment remains legal in the home, although reasonable is not legally defined.[41] Despite child physical abuse and verbal abuse frequently occurring together, the impacts of verbal abuse in corporal punishment have received less consideration;[13] potentially creating an impression that verbal abuse can be substituted for physical abuse and result in fewer or no harms. Here, child physical abuse dropped from around 20% in those born in the 1950s, 60s and 70s to 10% in those born in 2000 or after (figure 2). However, verbal abuse has risen from around 12% in those born before 1950 to nearly 20% in those born in 2000 or after (figure 2). Such changes may in part result from an increasing focus over recent decades on the prevention of physical abuse and an unintended consequence being parents, caregivers, and others adopting verbal abuse as a different method of chastisement. However, such a hypothesis requires additional study to establish motivations for physical abuse or verbal abuse within households, and whether public and political pressures have been a catalyst for change. Regardless, however, as exposure to childhood physical abuse and verbal abuse have similar associations with low mental well-being (table 2, figure 1), it is likely that any gains in mental well-being which could have been realised from reductions in physical abuse may have been eroded by a similar scale increase in verbal abuse. Consequently, evaluations of the impacts of interventions to reduce child abuse, including chastisement, must consider both

physical abuse and verbal abuse and both their individual and combined consequences to life course health.

Verbal abuse represents a modifiable factor and actions to reduce its prevalence will not only improve the early life experiences of affected children but will also reduce the likelihood that they will experience a range of poor outcomes associated with low mental well-being across the life course. Evidence based packages to reduce the abuse of children are available to end violence against children and include the WHO developed INSPIRE package of seven strategies for ending violence against children.[42] The package aims to reduce all types of violence against children including emotional or psychological violence such as denigration, ridicule, threats, and intimidation. Evidence informed interventions include public campaigns (eg, Safe and Enabling School Environment programme in Croatia[42 43]) aimed at promoting social change by raising awareness of both physical and verbal violence. The implementation of the INSPIRE strategies, critically with a focus on both physical abuse and verbal abuse of children, is likely to return better life course outcomes for mental well-being.

Limitations

All data used here relied on the retrospective recall and report of verbal abuse and physical abuse. Globally, 6 in 10 children under the age of 5 years-old are estimated to regularly suffer the psychological aggression of physical punishment at home.[44] Consequently, recollection of some abuse may be inaccurate while some participants may choose not to disclose any abuse they experienced. Survey compliance levels were consistent with similar studies of childhood adversity (see online supplemental table 1). However, self-selective bias introduced through non-compliance cannot be ruled out. Across the combined sample used here, an additional 7.6% of respondents were excluded due to incomplete responses. Despite the remaining sample size being substantial (n=20 687), such missing data may also have impacted findings. Data on older individuals (born 1950 or earlier) rely on those who are still alive and consequently, individuals who experienced verbal abuse or physical abuse as children but have died before survey dates will not be represented in the data. Surveys included in this analysis did not collect comprehensive information on treatments individuals may have received for mental well-being issues. Such interventions may be an additional explanatory factor impacting relationships between physical abuse, verbal abuse, and mental well-being outcomes. All studies used in this analysis were originally developed to provide representative samples of their target populations (see online supplemental table 1). However, this combined study sample is not intended to describe prevalence or other national level characteristics of England or Wales but to examine associations between exposures to physical abuse and verbal abuse in childhood and mental well-being outcomes in adulthood. In order to account for potential confounding introduced by different samples, study membership was included in all multivariate models.

Our results did not measure the severity of childhood physical abuse or verbal abuse, the length of or child age at exposure to either, or the frequency with which each occurred. Further studies that provide greater understanding of how such factors impact mental well-being could help inform where interventions are most required and what levels of physical abuse and verbal abuse moderation are likely to result in different mental well-being benefits. A number of other avenues for further research arise from the study findings and its limitations. Here, we have only examined the relationships between child verbal abuse and mental well-being outcomes across the life course. It is important to better understand verbal abuse's potential impact on physical health outcomes including risks of non-communicable diseases and antisocial as well as educational and employment outcomes. Finally, samples used in this study were all drawn from English and Welsh populations. Further studies of relationships between physical abuse, verbal abuse, and mental well-being are required in other countries and may identify different associations between types of child abuse and life course health.

CONCLUSION

The immediate consequences of physical abuse of children are often shocking with immediate and life course impacts on the victims' health. There remains an urgent need for greater measures to prevent physical abuse and support those who have been affected by it. Verbal abuse may not immediately manifest in ways that catch the attention of bystanders, clinicians, or others in supporting services with a responsibility for safeguarding children. However, as suggested here, some impacts may be no less harmful or protracted. In an increasing range of countries, parents, caregivers, teachers, and others are in roles where legislation now prevents the physical abuse of children, regardless of whether the intent would previously have been considered abusive, punitive, or educational. This leaves a potential void which should be filled with instructional advice and support on appropriate parenting, discipline, and control of children.[45 46] Without such support and in an absence of public knowledge of the damages caused by child verbal abuse, measures to reduce the physical punishment of children risk simply swapping one type of harmful abuse for another with equally long-term consequences.

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Acknowledgements We are grateful to the thousands of individuals across England and Wales who have kindly given up their time to participate in these studies.

Contributors MAB conceptualised the study and undertook data analyses. KH and KF undertook the background literature review and contributed to data analyses. MAB wrote the manuscript with contributions from KH, KF, NB, ZQ and CW. MAB and KH have verified the underlying data. All authors had full access to all the study data and accept responsibility to submit for publication. All authors reviewed the study findings and read and approved the final version before submission. MAB is the guarantor.

Funding MAB received salary support from the UK Prevention Research Partnership (Violence, Health and Society; MR-V049879/1).

Competing interests None declared.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not applicable.

Ethics approval This study involves human participants. Ethical approval was obtained from Liverpool John Moores University Research Ethics Panel (studies 1-4, 7; 12/HEA/016; 13/HEA/052; 14/EHC/0087; 14/EHC/008; 23/PHI/050) and Bangor University's Healthcare and Medical Sciences Ethics Committee (Studies 5-6; 2022-17077; 2022-17225). Additional approval for Welsh surveys was provided by the Public Health Wales Research and Development Office. Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available upon reasonable request. The dataset analysed in this study is available from the corresponding author on reasonable request.

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