

Communication



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Parental adverse childhood experiences and perpetration of child physical punishment in Wales

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Abstract: Child physical punishment is harmful to children and as such, is being prohibited by a 10 growing number of countries, including Wales. Parents' own childhood histories may affect their 11 risks of using child physical punishment. We conducted a national cross-sectional survey of Welsh 12 adults and measured relationships between the number of adverse childhood experiences (ACEs) 13 parents (n=720 with children aged <18) had suffered during childhood and their use of physical 14 punishment towards children. 28.2% of parents reported having ever physically punished a child 15 and 5.8% reported having done so recently (in the last year). Child physical punishment use in-16 creased with the number of ACEs parents reported. Parents with 4+ ACEs were almost three times 17 more likely to have ever physically punished a child and 11 times more likely to have done so re-18 cently (v. those with 0 ACEs). The majority (88.1%) of parents that reported recent child physical 19 punishment had a personal history of ACEs, while over half reported recently having been hit them-20 selves by a child. Child physical punishment is strongly associated with parents' own ACE exposure 21 and can occur within the context of broader conflict. Prohibiting physical punishment can protect 22 children and, with appropriate family support, may help break intergenerational cycles of violence. 23

Keywords: adverse childhood experiences; violence; physical punishment, parents, children.

1. Introduction

The physical punishment of children is recognised internationally as a form of vio-27 lence that harms children and violates their rights to dignity and protection [1]. Child 28 physical punishment has been shown to be a poor method of regulating child behaviour 29 and is linked to worsening child behaviour rather than its improvement [2]. Such punish-30 ment can increase children's risks of externalizing behaviours such as aggression; inter-31 nalizing issues such as mental ill health; and involvement in other forms of violence such 32 as intimate partner violence later in life [2–4]. The United Nations has called on states to 33 prohibit child physical punishment [1] and has included a target to end all forms of vio-34 lence against children in the Sustainable Development Goals (target 16.2) [5]. Globally, by 35 2022, 63 states had prohibited child physical punishment in all settings; accounting for 36 just 14% of the world's children [6]. Evidence shows that such prohibitions can reduce 37 support for, and prevalence of, child physical punishment [2]. However, even in countries 38 where prohibitions have been successfully implemented and social norms favour non-39 violent child discipline, a proportion of parents can continue to physically punish their 40 children [7]. 41

A range of individual, relational, cultural and societal factors can affect the risk of parents physically punishing children, including their own experience of abusive parenting and other childhood adversities [8,9]. Adverse childhood experiences (ACEs) such as child maltreatment, witnessing domestic violence and caregiver substance misuse, show 45

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Copyright: © 2022 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/license s/by/4.0/). cumulative relationships with poor health and social outcomes in later life, including 46 health-harming behaviours such as alcohol and drug use; mental illness; and involvement 47 in various forms of violence [10]. Accordingly, parental ACEs have been associated with 48 multiple risk factors for child maltreatment, perpetration of child maltreatment, and lower 49 protective factors such as resiliency and social connections [11, 12]. Despite this, few stud-50 ies have explored relationships between parents' history of ACEs and their use of physical 51 punishment towards children. However, a recent study explored relationships between 52 parents' exposure to individual ACEs and child spanking, finding that children whose 53 parents had suffered physical abuse, emotional abuse, spanking, and household mental 54

Understanding factors associated with parental use of child physical punishment is essential to inform interventions to prevent such punishment and help break intergenerational cycles of violence. In 2022, Wales joined the growing number of countries to ban physical punishment of children in all settings. Using data collected a year prior to legislative change, this study explores relationships between Welsh parents' exposure to cumulative ACEs whilst growing up and their use of physical punishment towards children. 61

illness during childhood had increased likelihood of having been spanked [13].

2. Materials and Methods

A national survey of Welsh adults (age ≥18) was undertaken between December 2020 63 and March 2021 (during national COVID-19 lockdown restrictions) to measure relation-64 ships between ACEs, health and behaviour [14]. The survey was conducted by telephone 65 (n=2,326) using a sample stratified by age, Welsh Health Board and residential deprivation 66 (using the Welsh Index of Multiple Deprivation [WIMD] [15]). Due to difficulty accessing 67 younger adults via telephone, an online survey was also disseminated via a commercial 68 panel. The online survey (n=650) included all adult age groups, targeted proportionate to 69 population demographics. Sampling and data collection were undertaken by a profes-70 sional market research company. Potential participants were informed of the nature of the 71 survey, including its voluntary, anonymous and confidential nature, and informed con-72 sent was recorded using opt-in consent. For the telephone survey, contact was made with 73 6,763 individuals, of whom 98 did not meet the inclusion criteria, 4,062 declined to partic-74 ipate and the remainder (n=2,603) agreed. Of those agreeing to participate, 277 did not fall 75 within the required age quota of their area. Thus, the participation rate for the telephone 76 sample for eligible participants meeting the quota sampling was 36.4% (2,326/6,388). It 77 was not possible to calculate a participation rate for the online sample. For analysis, the 78 sample was limited to parents with children aged <18 (n=735). Fifteen cases were excluded 79 due to missing key data (gender, age group, ACEs or child physical punishment) for a 80 final sample of 720 parents. 81

The questionnaire measured participants' exposure to nine ACE types before the age 82 of 18 using the Centers for Disease Control and Prevention short ACE tool [16]: 1) physi-83 cal, 2) verbal and 3) sexual abuse; 4) parental separation; 5) exposure to domestic violence; 84 and household member 6) mental illness, 7) alcohol abuse, 8) drug abuse and 9) incarcer-85 ation. Consistent with other studies [10], and to ensure adequate sample sizes for analysis, 86 the number of ACEs participants reported was summed for analysis (0 ACEs, 1 ACE, 2-3 87 ACEs, 4+ ACEs). Child physical punishment was measured by two questions asking: how 88 many times participants had ever smacked or slapped a child for misbehaving (coded to 89 never/at least once for analysis); and whether they had smacked or slapped a child to 90 punish them for their behaviour in the last 12 months (no/yes). Participants were also 91 asked if, in the last 12 months, they had: hit another adult for any reason, including to 92 defend themselves; been hit by an adult; and been hit by a child (aged <18 years). Demo-93 graphic variables included age, gender, ethnicity and residential deprivation quintile 94 (coded from postcode using the WIMD). 95

Statistical analysis was undertaken in SPSS v24 and used chi squared for bivariate 96 analysis and logistic regression for multivariate analysis. 97

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Participant demographics, ACE exposure levels and associations with child physical 99 punishment are shown in Table 1. Over a quarter (28.2%) of parents reported having ever 100 physically punished a child and 5.8% reported having done so recently (last 12 months). 101 There were no associations between child physical punishment and parental gender or 102 ethnicity. Ever physically punishing a child varied by deprivation and was reported more 103 by older parents, but there was no association between recent child physical punishment 104 and parental age or deprivation. ACE count was significantly associated with both phys-105 ical punishment measures. Having ever physically punished a child increased from 21.6% 106 in those with no ACEs to 36.0% in those with 4+ ACEs, while recent physical punishment 107 increased from 1.7% to 17.5% respectively. In multivariate analysis (Table 1), adjusted 108 odds of child physical punishment increased with ACE count. Parents with 4+ ACEs were 109 almost three times more likely to have ever physically punished a child and over eleven 110 times more likely to have done so recently. 111

Table 1. Participant characteristics and bivariate and multivariate associations with child physical112punishment113

Sample			Physically punished a child							
			Ever				In the last year			
		n (%)	%	Р	AOR (95%CIs)	Р	%	Р	AOR (95%CIs)	Р
All		720 (100.0)	28.2				5.8			
Gender	Male	240 (33.3)	30.4		Ref		5.0		Ref	
	Female	480 (66.7)	27.1	0.349	1.14 (0.78-1.65)	0.500	6.3	0.500	1.25 (0.59-2.61)	0.559
Age	18-29	69 (9.6)	17.4		Ref	< 0.001	7.2		Ref	0.469
	30-39	231 (32.1)	19.5		1.27 (0.62-2.60)	0.521	8.7		1.48 (0.52-4.26)	0.465
	40-49	271 (37.6)	31.4		2.70 (1.34-5.45)	0.006	3.7		0.77 (0.24-2.45)	0.658
	50+	149 (20.7)	40.9	< 0.001	4.15 (1.97-8.75)	< 0.001	4.7	0.101	1.14 (0.32-4.05)	0.836
Deprivation	(Most) 1	141 (19.6)	22.0		Ref	0.139	6.4		Ref	0.921
quintile	2	135 (18.8)	33.3		1.67 (0.95-2.91)	0.073	7.4		1.43 (0.54-3.81)	0.469
	3	146 (20.3)	21.9		0.99 (0.56-1.78)	0.986	6.2		1.33 (0.49-3.62)	0.577
	4	151 (21.0)	34.4		1.70 (0.97-2.97)	0.063	5.3		1.49 (0.52-4.26)	0.456
	(Least) 5	147 (20.4)	29.3	0.036	1.31 (0.75-2.32)	0.345	4.1	0.806	1.06 (0.35-3.24)	0.918
BAME*	No	687 (95.4)	27.9		Ref		5.8		Ref	
	Yes	33 (4.6)	33.3	0.502	1.34 (0.60-2.96)	0.483	6.1	0.955	0.93 (0.20-4.22)	0.923
ACE count	0	291 (40.4)	21.6		Ref	< 0.001	1.7		Ref	< 0.001
	1	155 (21.5)	29.0		1.62 (1.02-2.56)	0.041	4.5		2.50 (0.78-8.08)	0.125
	2-3	160 (22.2)	33.8		2.29 (1.45-3.61)	< 0.001	6.3		3.70 (1.22-11.17)	0.020
	4+	114 (15.8)	36.0	0.007	2.89 (1.72-4.80)	< 0.001	17.5	< 0.001	11.74 (4.16-33.18)	< 0.001

*BAME = Black, Asian and minority ethnic group. ACE = adverse childhood experience. AOR = 115 adjusted odds ratio. Ref = reference category. 116

Whilst the number of parents reporting recently physically punishing a child was118small, the majority of these parents reported having suffered at least one ACE themselves119in childhood (88.1% v. 57.8% of parents that had not recently physically punished a child)120and almost half (47.6% v. 13.9%) reported 4+ ACEs. The most common ACE types re-121

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ported were parental separation (52.4% v. 32.8% of parents that had not recently physi-122 cally punished a child); physical abuse (47.5% v. 18.0%), domestic violence (46.3% v. 123 18.7%) and emotional abuse (45.2% v. 26.3%). In the past year, 57.1% of parents that re-124 ported recently inflicting physical punishment also reported having been hit by a child 125 themselves (v. 12.1% of other parents), while 14.3% reported having been hit by an adult 126 (v. 5.5%) and 16.7% having hit another adult (v. 3.2%). 127

4. Discussion

Our study, conducted a year prior to the prohibition of child physical punishment in 129 Wales, found that only a minority of Welsh parents reported having used physical pun-130 ishment towards children in the previous year. However, the risks of using physical pun-131 ishment were strongly associated with parents' own exposure to ACEs in childhood. 132 Odds of parents reporting use of physical punishment increased with ACE count, with 133 those that reported 4+ ACEs being over 11 times more likely to report the use of physical 134 punishment in the last year. In fact, the vast majority of parents that reported recent use 135 of physical punishment had suffered at least one ACE themselves in childhood, often in-136 cluding violence. 137

Our findings are consistent with studies elsewhere identifying intergenerational 138 transmission of violence and other ACEs [17]. Existing evidence suggests various path-139 ways through which such intergenerational transmission can occur. These include the 140 harmful and lasting impacts of toxic stress imposed by ACEs on children's neurological 141 development and stress response, which can affect emotional regulation, social function-142 ing, health-risk behaviours and mental health [18]; all of which may impact on parenting 143 behaviours in later life. Further, exposure to violence in the home during childhood may 144 lead individuals to view violence as normal behaviour and an acceptable way of resolving 145 conflict and disciplining a child [17]. In our study, parents who used physical punishment 146 towards children often also reported being hit by children themselves; further reflecting 147 intergenerational transmission. They also reported involvement in violence with other 148adults more than parents that did not use physical punishment, suggesting that child 149 physical punishment can occur in a context of broader family conflict. 150

These findings have implications for the prevention of physical punishment against 151 children, and the successful implementation of legislation to prohibit child physical pun-152 ishment. Importantly, in our study most parents that reported ACEs did not report the 153 use of child physical punishment. However, it is critical that both policymakers and pro-154 fessionals who work with parents and children understand how parents' own childhood 155 experiences may affect their parenting skills; as well as their vulnerability to other forms 156 of violence and risk factors such as mental ill health. This understanding can support the 157 development and targeting of appropriate messaging and parenting support. There are a 158 range of effective parenting programmes that can reduce the risk of violence towards chil-159 dren [19] and a growing evidence base for programmes tailored to support parents with 160 a history of ACEs, often focusing on attachment, relationships and emotional regulation 161 [17]. Sensitive enquiry about parents' personal childhood experiences [17] in maternity or 162 early-years services can provide health professionals with the opportunity to identify vul-163 nerability and provide support, including reflection, discussion, education and referral to 164 services where appropriate. 165

Our study has several limitations. In line with other retrospective cross-sectional 166 studies, it relied on parents' recall and willingness to report sensitive issues, including 167 ACEs, child physical punishment and involvement in other violence. The study was con-168 ducted during a period of national COVID-19 lockdown restrictions that included stay at 169 home orders, social distancing and the closure of non-essential services. Such restrictions 170 have been linked to elevated levels of parenting stress, worsening mental ill health and 171 increased reports of child abuse and neglect [20]. Despite this, levels of recent child phys-172 ical punishment reported by parents were low. The timing of the study a year prior to 173 implementation of national prohibition on child physical punishment may have impacted 174

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parents' willingness to report this behaviour. However, findings also suggest that social 175 norms in Wales were already supportive of non-violent child punishment prior to legis-176 lative change. Thus, specific risk factors such as ACEs may help identify parents that are 177 at risk of continuing to use physical punishment towards children. However, attitudes 178 towards, and use of, child physical punishment vary widely across countries [7], and con-179 sequently our findings cannot be generalised internationally. In countries where child 180 physical punishment remains normative and socially acceptable, the successful imple-181 mentation of such legislation would require a package of measures to change social 182 norms, educate parents and develop parenting skills more broadly [21]. 183

5. Conclusions

Exposure to ACEs during childhood can impact individuals' parenting behaviours 185 later in life, with parents that have suffered ACEs being at increased risk of using physical 186 punishment towards children. Action to prevent child physical punishment should recognise the additional challenges faced by parents that have suffered ACEs and tailor programmes accordingly. While banning physical punishment can be an essential step in protecting children from this form of violence, it should be combined with appropriate support for families to break intergenerational cycles of violence. 187

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study. 203

Data Availability Statement: The data presented in this study are available on request from the corresponding author. 204

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References

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- United Nations Committee on the Rights of the Child. 42nd Session, General Comment No. 8. *The right of the child to protec-* 213 *tion from corporal punishment and other cruel or degrading forms of punishment*. United Nations, Geneva, Switzerland, 2007. 214 Available online: <u>https://digitallibrary.un.org/record/583961</u> (accessed 22 August 2022). 215
 United Nations. *Sustainable development goals*. Available online: <u>https://www.unodc.org/roseap/en/sustainable-develop-</u> 216
- 2. United Nations. *Sustainable development goals*. Available online: <u>https://www.unodc.org/roseap/en/sustainable-develop-ment-goals.html</u> (accessed 22 August 2022).
- 3. Heilmann, A.; Mehay, A.; Watt, R.G.; Kelly, Y.; Durrant, J.E.; van Turnhout, J.; Gershoff, E.T. Physical punishment and child outcomes: a narrative review of prospective studies. *Lancet* **2021**, *98*, 355–364. doi: 10.1016/S0140-6736(21)00582-1.
- Afifi, T.O.; Mota, N.; Sareen, J.; MacMillan, J.L. The relationships between harsh physical punishment and child maltreatment in childhood and intimate partner violence in adulthood. *BMC Public Health* 2017, 17, 493. doi: 10.1186/s12889-017-4359-8.
- Gershoff, E.T.; Grogan-Kaylor, A. (2016). Spanking and child outcomes: old controversies and new meta-analyses. *J. Fam.* 223 *Psychol.* 2016, 30, 453–469. <u>https://doi.org/10.1037/FAM0000191</u>.
- 6. End corporal punishment. <u>https://endcorporalpunishment.org/countdown/</u> (accessed 22 August 2022).

- 7. Zolotor, A.J.; Puzia, M.E. Bans against corporal punishment: a systematic review of the laws, changes in attitudes and behaviours. *Child Abuse Review* **2010**, *19*, 229–247. doi: 10.1002/car.1131.
- 8. Langevin, R.; Marshall, C.; Kingsland, E. Intergenerational cycles of maltreatment: a scoping review of psychosocial risk and protective factors. *Trauma Violence Abuse* **2021**, *22*, 672–688. doi: 10.1177/1524838019870917.
- 9. Hughes, M.; Cossar, J. The relationship between maternal childhood emotional abuse/neglect and parenting outcomes: a systematic review. *Child Abuse Review* **2016**, *25*, 31–45. doi: 10.1002/car.2393.
- 10. Hughes, K.; Bellis, M.A.; Hardcastle, K.A.; Sethi, D.; Butchart, A.; Mikton, C.; Jones, L.; Dunne, M.P. The impact of multiple adverse childhood experiences on health: a systematic review and meta-analysis. *Lancet Public Health* **2017**, *2*, e356–366. doi: 10.1016/S2468-2667(17)30118-4.
- 11. Buffarini, R.; Hammerton, G.; Coll, C.V.N; Cruz, S.; Freitas da Silveira, M.; Murray, J. Maternal adverse childhood experiences (ACEs) and their associations with intimate partner violence and child maltreatment: results from a Brazilian birth cohort. *Prev. Med.* **2022**, *155*, 106928. doi: 10.1016/j.ypmed.2021.106928.
- 12. Steele, H.; Bate, J.; Steele, M.; Dube, S.R.; Danskin, K.; Knafo, H.; Nikitiades, A.; Bonuck, K.; Meissner, P.; Murphy, A. Adverse childhood experiences, poverty, and parenting stress. *Canadian Journal of Behavioural Science* **2016**, 48, 32–38.
- 13. Afifi, T.O.; Salmon, S.; Stewart-Tufescu, A.; Taillieu, T. An examination of parents' adverse childhood experiences (ACEs) history and reported spanking of their child: informing child maltreatment prevention efforts. doi.org/10.3390/ijerph191710580.
- 14. Bellis, M.A.; Hughes, K.; Ford, K.; Madden, H.C.E.; Glendinning, F.; Wood, S. Associations between adverse childhood experiences, attitudes towards COVID-19 restrictions and vaccine hesitancy: a cross-sectional study. *BMJ Open* **2022**, *12*, e053915. doi: 10.1136/bmjopen-2021-053915.
- 15. Welsh Government. *Welsh index of multiple deprivation, 2019*. Available online: <u>https://gov.wales/welsh-index-multiple-dep-rivation-full-index-update-ranks-2019</u> (accessed 22 August 2022).
- 16. Centers for Disease Control and Prevention. *Behavioural risk factor surveillance system adverse childhood experience (ACE) module.* Available online: <u>https://www.cdc.gov/violenceprevention/acestudy/pdf/BRFSS_Adverse_Module.pdf</u> (accessed 22 August 2022).
- 17. Narayan, A.J.; Lieberman, A.F.; Masten, A.S. Intergenerational transmission and prevention of adverse childhood experiences (ACEs). *Clin. Psychol. Rev.* **2021**, *85*, 101997. doi: 10.1016/j.cpr.2021.101997.
- 18. Berens, A.E.; Jensen, S.K.G.; Nelson, C.A. Biological embedding of childhood adversity: from physiological mechanisms to clinical implications. *BMC Med.* **2017**, *15*, 135. doi: 10.1186/s12916-017-0895-4.
- 19. Desai, C.C.; Reece, J-A.; Shakespeare-Pellington, S. The prevention of violence in childhood through parenting programmes: a global review. *Psychol Health Med*, **2017**, *22*, 166–186. doi: 10.1080/13548506.2016.1271952.
- 20. Calvano, C.; Engelke, L.; Di Bella, J.; Kindermann, J.; Renneberg, B.; Winter, S.M. Families in the COVID-19 pandemic: parental stress, parent mental health and the occurrence of adverse childhood experiences—results of a representative survey in Germany. *Eur Child Adolesc Psychiatry* **2022**, *31*, 1–13. doi: 10.1007/s00787-021-01739-0.
- Global Partnership to End Violence Against Children. Laying the foundations for non-violent childhoods: putting prohibition of corporal punishment of children into practice: implementation guidance. Together to #ENDviolence Solutions Summit Series. New York, USA, 2021. Available online: <u>https://endcorporalpunishment.org/wp-content/uploads/2021/06/Implementation-guidance.pdf</u> (accessed 20 September 2022).

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