Parental Physical Punishment: Child Outcomes and Attitudes

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Summary

- The former Cabinet Secretary for Children and Communities asked the PPIW to undertake a review of the evidence on children’s attitudes towards physical punishment, and the links between parental physical punishment and child outcomes.

- Children’s attitudes towards parental physical punishment vary but are generally negative. Children who have experienced physical punishment and younger children are more likely to support its use. Nonetheless, children view physical punishment as the most severe type of discipline and report that it hurts them physically and emotionally. Some children associate it with angry parents who later regret their actions.

- Several hundred studies have explored the links between parental physical punishment and child outcomes often coming to different and sometimes opposite conclusions. Overall, the balance of evidence supports the following conclusions:
  - Severe physical punishment and child abuse are harmful to child development.
  - The way and conditions in which physical punishment is typically used by parents is correlated with negative outcomes for children.
  - Physical punishment is no more effective at changing short term behaviour than other forms of non-physical discipline, for defiant children.
  - No replicated peer-reviewed research has shown that parental physical punishment has positive effects on long-term developmental outcomes.

- The principal areas of disagreement among experts concern the magnitude of the link between physical punishment and negative outcomes, and whether there is evidence that the outcomes are caused by (rather than just associated with) physical punishment.

- In our view the evidence does not definitively show that “reasonable” parental physical punishment causes negative outcomes. But there is evidence of an association with negative outcomes, and no evidence of benefits, either in terms of long-term developmental benefits, or in terms of its efficacy in influencing short-term changes to behaviour relative to other, non-physical means.

- At the time of writing, the majority of researchers in the field make the judgement that the balance of evidence is sufficient to support the claim that all physical punishment under all conditions is potentially harmful to child development.
Introduction

The United Nations Committee on the Rights of the Child (UNCRC, 2006, p.4) defines physical punishment as "any punishment in which physical force is used and intended to cause some degree of pain or discomfort, however light". Parental physical punishment is currently lawful in the UK within the bounds of 'reasonable punishment' (Department for Children, and Families, 2007) and is used as a form of discipline by some parents in Wales in some circumstances (Prince et al., 2014; Donbavand & Sills-Jones, 2016). There are signs that the prevalence of physical punishment is decreasing and that public attitudes are changing in the UK (Ipsos MORI, 2007; Radford et al., 2011) but there continues to be a diverse range public attitudes (Bunting, Webb & Healy, 2010).

The effects of parental physical punishment on children is a source of debate and disagreement among professionals, academics and the general public. There has been a long standing concern about the effects of parental physical punishment on child development. However, some challenge the premise that physical punishment should be judged in terms of its impacts and argue that it breaches children’s rights regardless of its outcomes or public opinion. Parental physical punishment is a violation of children’s rights according to the UN convention ratified by the UK, and the UNCRC has criticised the UK for not enforcing children’s rights to be protected from all forms of physical or mental violence (Arthur, 2004). Specifically, it opposes the defence of ‘reasonable punishment’ pointing to the imprecise nature of this expression and the risk of it being interpreted in a subjective and arbitrary manner (Arthur, 2004). The European Court of Human Rights has also ruled that UK law does not provide adequate protection to children from violence and that the reasonable punishment defence undermines the law’s ability to protect the rights of children (Arthur, 2004).

In contrast to the UK, 29 European states have prohibited the use of physical punishment in all settings and others have expressed a commitment to enacting full prohibition since the

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1 In 2004 an amendment to the Children’s Act was introduced in an attempt to define the line between reasonable punishment and abuse. Section 58 (Children Act 2004) states that for any injury to a child caused by a parent or person acting in loco parentis which amounts to more than a temporary reddening of the skin, and where the injury is more than transient and trifling, the defence of reasonable punishment is not available (see for example: https://http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/344503/Review_of_Section_58_of_the_Children_Act_2004.pdf).

2 For more information on the attitudes of parents in Wales towards physical punishment see Prince et al. (2014) and Donbavand & Sills-Jones (2016).

3 Benjet & Kazdin (2003) report that in one survey, approximately one third of American psychologists thought that the American Psychological Association (APA) should definitely have a policy opposing physical punishment of children, whereas another third thought that the APA should definitely not.
passage of the United Nations Convention on the Rights of the Child (Global Initiative to End All Corporal Punishment of Children, 2016). However, parental awareness of and adherence to these bans varies (Bussmann, Erthal & Schroth, 2011).

The former Cabinet Secretary for Children and Communities asked the PPIW to review and synthesise the evidence on children’s attitudes towards parental physical punishment and the links between parental physical punishment and child outcomes. The PPIW reviewed the available literature and had the findings peer reviewed by experts in the field. This report summarises the key messages from this work.

Children’s Attitudes Towards Parental Physical Punishment

Several studies have been conducted in the UK of children’s attitudes towards parental physical punishment (Willow & Hyder, 1998; Crowley & Vulliamy, 2002; Cutting, 2002; Horgan, 2002; Sherbert Research, 2007; Milne, 2009) with one study specifically focused on the views of children in Wales (Crowley & Vulliamy, 2002). Most used the same methodology to collect the views of children, and all draw on small samples that are not statistically representative.

The evidence from this research suggests that most children identify a ‘smack’ as a hit which is applied with force (Willow & Hyder, 1998; Crowley & Vulliamy, 2002, Milne, 2009) and recognise that it is a response to ‘naughty’ behaviour (Crowley & Vulliamy, 2002). Not many studies have looked at children’s awareness of the current legal position in the UK, but Milne (2009) reported that while some children were aware, others expressed shock that the law treated children and adults differently.

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4 For more discussion of the effectiveness of legislation prohibiting parental physical punishment see Keating (forthcoming).

5 As physical punishment may take the form of spanking (or smacking), slapping, pinching, pulling hair, twisting ears or hitting with objects in response to misbehaviour (Zolotor & Puzia, 2010), definitions of physical punishment vary across studies. Throughout this report we focus as far as possible on ‘mild’ forms of physical punishment which might be classified as ‘reasonable punishment’ under the legal definition of permissible forms of physical punishment in the home in Wales (see Department for Children Schools and Families, 2007). However, there is little empirical information on the qualities of these acts (such as force, intent, anger) and so distinctions made are necessarily arbitrary.

6 For the most part, these studies used facilitated conversations with small groups of children. Sherbert Research (2007) used a discussion guide to interview children in small groups (either friendship or familial groups). The other studies reviewed, used a story book to structure discussions and explore attitudes. Participants were introduced to a character from another planet who was curious about life on earth. Via a storybook, the character asked the children a number of questions about physical punishment (see for example Crowley & Vulliamy, 2002).
Research commissioned by the Central Office of Information with 64 children aged four to 16 across England and Wales found that around two-thirds reported having been ‘smacked’ at some point, with children being ‘smacked’ more often when they are younger (Sherbert Research, 2007).

Children view physical punishment as the most severe type of discipline and report that it hurts both physically and emotionally (Willow & Hyder, 1998; Crowley & Vulliamy, 2002; Sherbert Research, 2007). Some describe feeling scared, sad and unloved and say that it negatively affected their relationship with their parents (Children in Scotland, 2000; Cutting, 2001; Deater-Deckard et al., 2003; Dobbs & Duncan, 2004; Dobs et al., 2006; Horgan, 2002; Willow & Hyder, 1998, Milne, 2009).

However, while it is widely reported that children do not like physical punishment and the pain and anger associated with it, some studies have found that children accept it as a parental right in certain circumstances (Graziano, Hamblen & Plante, 1996), think it might be necessary for younger children (Sharpe, 2004) or when a child has been very naughty (Crowley & Vulliamy, 2002; Sherbert Research, 2007). The available evidence suggests that children believe that discipline and punishment, when explained and administered fairly, can play an important role in a child’s healthy development (Sherbert Research, 2007).

The principal factor in determining a child’s attitudes to physical punishment appears to be whether they have experienced physical punishment (Sherbert Research, 2007; Vittrup & Holden, 2010). Sherbert Research (2007) found that all children sampled who had not been physically punished rejected it as an acceptable form of punishment, while many who had experienced it reported that it was acceptable. Along with the experience of physical punishment, age seems to be a key factor in determining a child’s views – younger children find it more acceptable than older children⁸ (Sherbert Research, 2007; Vittrup & Holden, 2010) – although a range of factors can impact on attitudes (Sherbert Research, 2007)⁹.

Children associate physical punishment with angry parents (Willow & Hyder, 1998; Crowley & Vulliamy, 2002; Sherbert Research, 2007) who later regret their actions (Willow & Hyder, 1998).

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⁷ The Central Office of Information was a UK Government Department which provided marketing and advertising services to other departments. It was closed in 2012.

⁸ Sherbert Research (2007) suggest that this is because young children as less well equipped to make moral judgements, and are therefore more likely to accept physical punishment.

⁹ Factors that can affect a child’s attitudes include: family composition, dynamics, and socio-economic status; the experiences of peers; experiences at school and in sport clubs; gender (it was felt to be more acceptable to smack a boy); geography (those from isolated rural communities were more accepting); and personality (children with high self-esteem and emotional intelligence tended to question the acceptability of smacking) (Sherbert Research, 2007).
1998; Crowley & Vulliamy, 2002). Some children also think that parental physical punishment encourages children to use physical violence (Crowley & Vulliamy, 2002; Milne, 2009). Sherbert Research (2007) report that children felt that restricting access to television and toys and other similar methods were more effective forms of discipline than physical punishment because they were longer lasting, inconvenienced them more and gave them time to reflect on their actions. Similarly, Milne (2009) found that children felt that talking, removing privileges for bad behaviour and giving rewards for good behaviour were more effective than ‘smacking’.

Parental Physical Punishment and Child Outcomes

Framing the evidence

Several hundred studies have been conducted on the links between parental physical punishment and child outcomes, mostly in the US. By far the most frequently studied outcome is childhood problem behaviour (e.g. aggression). Child emotional and mental health, cognitive ability, parent-child relationships and adult outcomes have also been the subject of research but to a lesser degree. Efforts have been made to synthesise this large body of research in narrative form (Becker et al., 1964; Larzelere, 1996; Steinmetz, 1979; Strauss, 2001; Gershoff, 2007), systematic reviews (Bunting et al., 2008; Heilmann et al., 2015) and meta-analyses (Gershoff, 2002; Paolucci et al., 2004; Larzelere et al., 2005; Ferguson, 2013; Gershoff & Grogan-Kaylor, 2016).

Different studies have reached contrasting conclusions, but overall the evidence supports the following conclusions:

1. Severe physical punishment and child abuse are harmful to child development.
2. The way, and conditions in which, physical punishment is typically used by parents is linked with antisocial behavior and other undesirable behaviors in children.
3. Physical punishment is, on average, no more effective at changing short term behaviour than other forms of non-physical discipline, for defiant children10.

10 Roberts and Powers (1990) found that on average defiant children can be made to cooperate with timeout just as effectively with a brief forced room isolation as with ‘conditional’ smacking (specifically two open handed swats to the buttocks).
4. No replicated peer-reviewed research has shown that parental physical punishment has positive effects on long term developmental outcomes\textsuperscript{11}.

However, there has been significant debate about whether there is a causal link between physical punishment and negative child outcomes; in the main this rests on a dispute about the research methods used by studies which have concluded that there is a causal link. This has resulted in two schools of thought: the anti-physical punishment and the conditional physical punishment positions\textsuperscript{12}.

The position currently held by the majority of researchers in the field is the anti-physical punishment perspective. They believe that the evidence supports the claims that all physical punishment under all conditions is potentially harmful to child development.

A minority of researchers take the alternative position, arguing that the evidence is not that clear-cut and the effects of parental physical punishment depend on a range of factors. They highlight systematic methodological flaws in some studies that support the anti-physical punishment stance and suggest that some forms of parental physical punishment in some circumstances are effective for disciplining some defiant children (Larzelere & Trumbull, 2017).

The next part of this report reviews the evidence on the links between parental physical punishment and child outcomes, unpicking the debate about the nature of the links and research methods used to reach conclusions.

**Causal models: How might physical punishment be linked to child outcomes?**

Advocates of the anti-physical punishment perspective suggest that parental physical punishment is linked to childhood behaviour problems because, based on social learning theory\textsuperscript{13}, it models and legitimises aggression and violence (Becker, 1964; Strauss, 1994).

\textsuperscript{11} One study by Tennant, Detels and Clark (1975) found less substance abuse among young men who had been ‘spanked’ during childhood but this finding has not been replicated.

\textsuperscript{12} There is also the pro physical punishment perspective but this has little in the way of evidence to support it and is rarely found in peer-reviewed academic journals. It is therefore excluded from this review. However, it is important to acknowledge that it has support in the general population (Benjet & Kazdin, 2003). Advocates of this perspective suggest that physical punishment teaches respect for authority and its absence leads to uncontrollable, disrespectful behaviour (Benjet & Kazdin, 2003) such that refraining from physical punishment is detrimental (e.g. Smith, 2000).

\textsuperscript{13} Social learning theory emphasises the importance of observed behaviour in the learning process, and suggests that children learn through observation, imitation and modelling.
They argue that physical punishment has been implicated as one of the possible causes of criminal and antisocial behaviours (Wilson & Herstein, 1985). There are several different theories that explain why this might be. Attribution theory assumes the link between physical punishment and antisocial behaviour occurs through a disruption to the child’s internalisation of morals (Hoffman, 1983). Other theories suggest that parental use of physical punishment negatively affects the parent-child relationship and therefore decreases the child’s willingness to internalise parents’ values (Hirschi, 1969).

On the other hand, advocates of the conditional physical punishment perspective suggest that criminal and antisocial behaviour is caused by a lack of discipline; and physical punishment may be used to control the short-term behaviour of the child and to reinforce the authority of the parent (Baumrind, 1997). Some also point to research that suggests that parenting which combines physical punishment with nurturance, give-and-take communication and maturity demands can be linked to long-term beneficial outcomes (Baumrind et al., 2010); although, as discussed below, these findings are contested.

Far less theoretical work has linked parental physical punishment and child emotional and mental health. Coercive parenting (characterised by harsh parenting that may involve physical punishment) has been linked to reduced confidence and assertiveness and increased feelings of helplessness among children (Baumrind & Black, 1967) but this link does not relate directly to the impacts of physical punishment. The theoretical causal pathways underlying the link between physical punishment and more distal child outcomes, such as cognitive ability, are even less clear.

**Establishing causal relationships: A note on research methods**

It is widely agreed that the best way of establishing causal relationships involves experimental study designs where participants are randomly assigned different treatments. However, parents’ use of physical punishment is not easily or ethically studied through an experimental design (parents cannot be randomly assigned to children with varying predispositions for requiring discipline, children cannot be randomly assigned to parents with varying predispositions to use physical punishment). As a result, there are very few studies which have examined the relationship between parental physical punishment and child outcomes in this way; these are explored further below (see next section on experimental evidence).

The next best methodology for investigating the relationship between two behaviours involves longitudinal study designs, which gather data on the same participants over a period of time. However, due to an inability to control all confounding variables (the other factors related to
the child, parents or family life which may explain some or all of the relationship between parental physical punishment and child outcomes), longitudinal study designs cannot categorically establish causal relationships. Cross-sectional studies, which look at the relationship between two behaviours at one point in time, and retrospective studies, which glean data from past records, are even less reliable in this regard. Nonetheless, researchers can control for some confounding variables in their analyses to increase confidence in an observed link between two behaviours, or conversely, to suggest that other factors might account for any correlations between the two.

The majority of the evidence on the links between physical punishment and child outcomes comes from correlational studies (longitudinal, cross-sectional or retrospective research designs). Many of these studies have been collected into meta-analyses, a procedure used to combine data from multiple studies leading to a higher statistical power (i.e. ability to detect an effect) than is possible from an individual study. However, a number of factors can affect the results of meta-analyses including the individual study selection criteria and how the data are combined and analysed.

What does the experimental evidence tell us about the link between physical punishment and child outcomes?

A small number of experimental studies have come to contrasting conclusions about the effectiveness of parental physical punishment to achieve desired behaviour. Four studies examined the effects of physical punishment (specifically “two open-hand swats to the buttocks”) when used to back up ‘time-out’ in a controlled manner (defined then as the most appropriate way of achieving time-out compliance by professionals with clinically defiant two to six year olds) (Bean et al., 1981; Day et al., 1983; Roberts, 1988; Roberts & Powers, 1990). These studies, which formed part of a parents behavioural training programme, found that children were more likely to cooperate with ‘time-out’ with fewer enforcement repetitions when it was combined with either the physical punishment back up, or the isolation back up. Combining it with other discipline back up options was less effective. These studies have been criticised for showing inconsistent effect sizes\(^{14}\) (Gershoff, 2002) though some suggest this is due to differences in what the physical punishment back-up was compared with (Larzelere & Baumrind, 2010). It has also been argued that the findings are limited to achieving immediate compliance rather than long term effects, and that these studies demonstrate that physical

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\(^{14}\) Effect size is a simple way of quantifying the difference between two groups.
punishment is not actually necessary due to the isolation back up being just as effective (Gershoff, 2002). Regardless, while immediate compliance is considered a beneficial effect of physical punishment by some “immediate compliance as an outcome is very limited ” and “should not, on its own, be a criterion for whether to or not to ‘spank’” (Benjet & Kazdin, 2003, p.220).

Other experimental evidence has sought to establish whether the impact of certain interventions is attributable to changes in parental physical punishment (Gershoff & Grogan-Kaylor, 2016). One randomised control study (Beauchaine et al., 2005) that evaluated the effectiveness of Incredible Years, a US parenting programme for children with behaviour problems which aimed to improve parent-child relationships, reported that lower levels of harsh parenting (characterised by six items including slapping, spanking, hitting, restraining) at baseline and a reduction in the use of harsh parenting following the intervention was associated with a reduction in conduct problems over time. This finding has particular value given that the children had high levels of pre-existing conduct problems. However, the Incredible Years programme aimed to change many aspects of the parent-child relationship, and physical punishment was only part of the harsh parenting measure. This means that there could be many confounding factors in the relationship observed between physical punishment and behaviour.

Similarly, Gershoff, Ansari et al. (2016) analysed data from a national randomised control trial of Head Start, a US early childhood programme targeted at low-income families, to examine whether improvements in child outcomes were related to a reduction in parents’ use of physical punishment. They found that families in the Head Start programme significantly reduced their use of ‘spanking’ and that participation in the programme was linked to decreases in child aggression over time. However, as with the Beauchaine et al. (2005) study, not all components of the Head Start programme were controlled in this analysis so it is possible that some, or all, of the reduction in aggression was due to other aspects of the programme besides the reduction in ‘spanking’. Indeed, analysis of whether the reduction in aggression was mediated by the reduction in physical punishment was not significant and so this study could also be interpreted to suggest interventions designed to reduce spanking do not result in a practically significant impact on childhood behaviour.

Taken together, it is difficult to draw a clear conclusion from the small amount of experimental evidence. On the one hand, used in the right form and at an appropriate time with professional supervision, specific uses of parental physical punishment may help to back up other forms of discipline to gain immediate compliance from clinically defiant children. But the same outcome
can be achieved with an alternative non-physical back up method, and immediate compliance alone is too limited to be the outcome that determines whether physical punishment should or should not be used. Conversely, studies exploring the effect of physical punishment as ‘normally’ administered (i.e. in unsupervised contexts) in low income families have suggested a link between a reduction in physical punishment and a reduction in antisocial behaviour over time, but the evidence is not strong enough to draw clear conclusions about causality.

**What does the correlational evidence tell us about the link between physical punishment and child outcomes?**

A vast quantity of cross-sectional, retrospective and increasingly longitudinal research consistently suggests that parental physical punishment is associated with a small increase in childhood problem behaviour and that the relationship is reciprocal and escalates over time (see for example Heilmann et al., 2015; Altschul et al., 2016; Gershoff, 2002; Gershoff & Grogan-Kaylor, 2016). Furthermore, a limited number of studies with data on the frequency of physical punishment link more frequent use of physical punishment, or the longer the time period over which physical punishment occurs, with worse subsequent behaviour problems (see for example Grogan-Kaylor, 2005; Mackenzie et al., 2014 and to some extent Larzelere, 2005). There is also some correlational evidence to suggest that physical punishment is linked to poorer child emotional and mental health, child cognitive ability and adult outcomes (outcomes for those exposed to physical punishment in childhood, once they reach adulthood) (see for example Gershoff & Grogan-Kaylor, 2016; Heilmann et al., 2015), but this evidence is limited relative to the evidence on childhood problem behaviour.

However, there is debate about whether causality can be determined from these correlations, and some experts have suggested that there are systematic flaws in this research. Our review of the evidence suggests that many of the primary studies and each of the five meta-analyses on physical punishment and child outcomes (all of which are highly cited) have methodological problems which make determining causality difficult. These issues have been summarised in Annex 1.

As a result, despite a wealth of evidence to suggest a correlation between parental physical punishment and negative outcomes for children, it is hard to draw clear conclusions about whether there is a causal relationship between parental physical punishment and child outcomes.
Research in this area has matured from primarily cross-sectional and retrospective studies to longitudinal studies that control for some potentially confounding variables. But for now the models which attempt to explain why physical punishment might lead to adverse child outcomes (either explicitly or implicitly) do not match those that have been tested in the primary studies and at the review level. This, combined with the shortage of experimental evidence, makes it inappropriate to talk about causal impacts or effects. Given the flawed nature of the primary and the review level studies we can only conclude that there is a correlation, not necessarily a causal link, between parental physical punishment and a (usually small) increase in childhood problem behaviour and other outcomes.

Nonetheless, while there is insufficient evidence to be sure of the nature or magnitude of these links, we cannot dismiss that the relationship exists. As effect sizes are smaller when confounding variables are controlled for, the likelihood is that several interrelated family, parenting and/or child factors coexist to create this relationship. Indeed, this could explain the puzzling proposed causal pathways between physical punishment and distal child outcomes such as cognitive ability. As a result, improving outcomes for children is likely to require action on all of these factors, rather than focusing on physical punishment as an isolated issue. There could also be value in further work to understand the relationships between physical punishment, these wider factors, and child outcomes (Prince et al., 2014, Ferguson, 2013).

Immediate compliance is held up as a short term benefit of physical punishment by some but evidence on this is inconsistent (Gershoff, 2002). Furthermore, the evidence available suggests that physical punishment is only effective in achieving immediate compliance in limited conditions\(^\text{15}\) and the same outcome can be achieved using alternative, non-physical forms of punishment (specifically isolation). This has led some to argue that there is no need for physical punishment; and, while the available evidence suggests physical punishment does not necessarily produce a harmful effect, the risk that it might lead to detrimental outcomes argues against its use (Smith, 2006).

The link between parental physical punishment and child abuse

It is widely agreed that physical abuse (as opposed to parental punishment) is harmful to children and affects their long-term outcomes. Some researchers conceptualise physical punishment and physical abuse along a continuum (e.g. Vasta, 1982) and do not think it is

\(^{15}\) Specifically with defiant children aged two to six using two open-hand swats to the buttocks when used to back up ‘time out’ in a controlled manner.
possible to distinguish ‘non-abusive’ physical punishment from physical abuse. However, whilst any distinction is necessarily arbitrary, as many parents in the UK use physical punishment to discipline their children, it is meaningful to make this distinction to help us understand a commonly used discipline practice.

There is evidence to suggest that physical punishment is linked to child abuse (Heilmann et al., 2015; Gershoff et al., 2016). For example, Zolotor et al. (2008) found that children who were physically punished via spanking “were twice as likely, and those hit with an object were nine times as likely, to also be physically abused”. This finding is supported by other similar studies (Lee, Grogan-Kaylor, & Berger, 2014) and Gershoff et al.’s (2016) meta-analysis which found the biggest effect size was for the correlation between physical punishment and abuse.

In some ways this link makes sense – it seems logical that parents who abuse their children might also use physical punishment too (Ferguson, 2016) which could explain the high association found by Zolotor et al. (2008) and others. However, the evidence of a link between physical punishment and abuse does not in itself support the view that parental use of physical punishment causes or predicts later abuse16.

Conclusions and Policy Implications

According to ratified UK law, the use of physical punishment in the family is a violation of children’s rights (UNCRC, 2002). It can therefore be argued that there is no need to explore the evidence on the effects of parental physical punishment on child outcomes in order to say that physical punishment must be prohibited and stopped.

Such considerations, understandably, feed in to empirical work which seeks to explore the relationship between physical punishment and child outcomes. The debate about parental physical punishment is often driven, at least in part, by value judgments about how children should or should not be raised, rather than by empirical evidence and “the evidence cannot be divorced from the positions from which the research has emanated” (Benjet & Kazdin, 2003, p.204). Most studies were undertaken in the US where the issue is highly politicised and it is difficult to disentangle robust science from well-intentioned advocacy efforts. This is made even more difficult by the fact that proponents of the anti-physical punishment and of

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16 Evaluations of the data in countries with anti-physical punishment legislation have come to conflicting conclusions (Durrant 1999a; Durrant. 1999b; Larzelere & Johnson, 1999) and resulted in years of unsettled debate (Larzelere, 2004; Durrant, 2005; Larzelere, 2005; Larzelere, Swindle & Johnson, 2013) (see Keating (forthcoming) for more discussion on this).
conditional punishment positions can call on work by highly reputable researchers whose studies are described as "exemplary in terms of scope, comprehensiveness and scholarship" (Benjet & Kazdin, 2003, p.203).

Despite this, there are areas of agreement, and experts do not generally contest that the evidence shows that:

- Children’s views towards parental physical punishment are generally negative.
- There is strong evidence that severe physical punishment and child abuse are harmful to child development.
- There is no replicated evidence to show that parental usage of physical punishment improves long-term developmental health.
- Physical punishment is no more effective at changing short term behaviour than other forms of non-physical discipline, for defiant children.

In light of these findings, it is clear that parental use of physical punishment has no long-term developmental benefits and no otherwise unachievable short-term benefits. Furthermore, most academic experts concur that the way and conditions in which physical punishment is typically implemented by parents is linked to some small extent with antisocial behavior and other undesirable behaviours in children.

The principle disagreement is whether there is evidence that these outcomes are caused by (rather than just associated with) physical punishment. Supporters of the anti-physical punishment perspective argue that replications of these correlations are enough to draw the conclusion that parental physical punishment is linked to childhood problem behaviour and that evidence of the risk of harm is enough to support a ban. But supporters of the conditional physical punishment perspective argue that longitudinal correlations are biased against corrective actions and that the evidence base is an accumulation of repeated systematic errors. They base conclusions on evidence which compares physical punishment with alternative disciplinary tactics and evidence that shows some ‘optimal forms’ of physical punishment to be effective in achieving immediate compliance from the most defiant young children.

Our review suggests that it is not possible to say with absolute certainty whether parental use of ‘reasonable’ physical punishment causes harm to child development, or not.\(^\text{17}\) Much of the

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\(^\text{17}\) This review was not a full systematic review and, as such, it has its limitations. We have sought to guard against this by using a thorough peer review process to check the key messages with experts in the field, so as to provide a thorough and balanced account of the existing evidence.
research in this area is flawed. Many of the primary studies and all of the five meta-analyses on physical punishment and child outcomes (all of which are highly cited) have methodological problems which make the relationships between physical punishment and child outcomes difficult to unpick empirically\textsuperscript{18}.

It is possible to infer from this that several interrelated factors (rooted in characteristics of the family, the approach to parenting and the child themselves) contribute to the relationship between physical punishment and detrimental child outcomes. It is important, therefore, not to focus unduly on ‘reasonable’ physical punishment and lose sight of the range of other factors that coexist to create an adverse impact on child outcomes.

\textsuperscript{18} This complexity is not limited to the issue of physical punishment. For example there are parallels to some extent with the research base and policy action on alcohol consumption during pregnancy. Descriptions of the effects of moderate alcohol consumption during pregnancy on adverse pregnancy outcomes have been inconsistent. Dose–response relationship indicates that heavy alcohol consumption during pregnancy increases the risks of negative outcomes, whereas light to moderate alcohol consumption shows no effect (Patra et al., 2011). As a result of it being impossible to define the acceptable line for each individual pregnancy, the guidance is that women should not drink at all during pregnancy to eliminate the risks of negative outcomes. The extent to which the same principle can be applied to parental use of physical punishment is up for discussion.
Annex 1: Methodological Issues

Many of the primary studies and each of the five meta-analyses on physical punishment and child outcomes (all of which are highly cited) have methodological problems which make determining causality difficult.

1. The issue of conflation

First, ‘mild’ forms of physical punishment are often conflated with other forms of abusive behaviour in correlational studies. Indeed, a central limitation of research in this area is the lack of consensus regarding the distinction between physical punishment and physical abuse. The main criticism of the Gershoff (2002) and Paolucci & Vilota (2004) meta-analyses is that they included harsh and potentially injurious behaviours, such as hitting children with objects, in their definition of physical punishment. When Baumrind et al. (2002) reanalysed the data from Gershoff (2002), separating out what they deemed as harsh or potentially abusive forms of physical punishment, they reported that the effect size for the studies using less severe physical punishment was significantly smaller than the effect size for harsh physical punishment. Baumrind et al. (2002) therefore concluded that only severe methods of physical punishment are harmful. Nonetheless, both effect sizes were statistically significant and positive, indicating that both mild and severe forms are correlated with child outcomes (though some would argue the magnitude of the statistical significance for the relationship between less severe physical punishment and child outcomes is so small that it might not have a discernible impact).

Gershoff et al.’s (2016) more recent meta-analysis aimed to address this concern by focusing on studies of mild physical punishment and examining the way in which the strength and direction of the links between physical punishment and child outcomes compare with the strength and direction of the links between clearly abusive methods and child outcomes. Unlike Baumrind et al. (2002) they concluded that effect sizes did not substantially differ between physical punishment and physical abuse (though the effect size for physical punishment alone was slightly smaller). However, some experts argue that Gershoff et al.’s (2016) methodology failed to control for the concurrent impact of more severe punishment
suggesting the effects of less severe physical punishment are still conflated with abuse in these analyses.\footnote{This is because Gershoff et al.’s (2016) meta-analysis relied on bivariate correlations (correlations between two variables) rather than correlations which controlled for more severe punishment.}

2. \textit{The issue of statistical versus practical significance}

The conflicting conclusions articulated above (between Baumrind et al., 2002 and Gershoff et al., 2016) also point to a second issue – the issue of statistical versus practical significance. There is some disagreement among researchers in this field about the point at which a statistically significant relationship between two variables should be interpreted as being practically significant in the real world (i.e. showing a noticeable difference). For example, of the 14 outcomes deemed to be statistically significant in Gershoff & Grogan-Kaylor’s (2016) meta-analysis only four would achieve a level recommended by Ferguson for practical significance (Ferguson, 2009); meaning that while statistical analysis suggests that physical punishment affects 14 different outcomes, for only four of these would the effects be large enough to be discernible in the real world. Likewise, several of the meta-analyses in this area used discredited rules of thumb to interpret effect sizes. Failure to agree on the cut-off point at which statistically significant links are practically significant has led to researchers interpreting the same effect sizes in different ways.

3. \textit{The issue of corrective actions}

Third, while it is hard to base conclusions about causality on correlations at the best of times, some researchers argue that it is insufficiently recognised that correlations can be particularly misleading when used to examine corrective actions; that is, remedial actions used to correct a perceived problem (Larzelere, Cox & Swindle, 2015). This is because the corrective action, in this case parental physical punishment, is inherently confounded with the perceived problem, in this case childhood problem behaviour\footnote{This issue does not apply so readily to the link between physical punishment and child emotional and mental health or cognitive ability.}. This creates a selection or intervention bias because children receiving the corrective action have a poorer prognosis than those not requiring the corrective action. Assuming that the corrective action is only ever partially successful, the argument is that correlational studies are biased by residual ‘problem behaviour’ and draw the conclusion that this is an ‘impact’ of the corrective action, when some or all of the results are likely due to the poor prognosis inherent in the behaviour problems the
parent was trying to correct. Instead, one might conclude that a corrective action was partially successful in correcting the original behaviour.

Larzelere and others argue that this problem has created a pervasive, systematic bias in the evidence base. They argue that using the same methodology, one might conclude that more socially acceptable corrective actions are associated with poorer outcomes to the same degree; for example expressing disappointment and time-out as forms of discipline (Gershoff et al., 2010). Similar methods have also led studies to conclude that parents helping with homework is associated with poorer academic success (Hill & Tyson, 2009) and that psychotherapy and Ritalin prescribed by professionals are as equally linked to child problem behaviour as physical punishment (Larzelere, Cox, & Smith, 2010). However, critics argue that this simply shows these corrective actions to be just as ineffective and harmful as physical punishment. Regardless, controlling for initial levels of child behaviour seems very important as it is likely to strongly affect observed effect sizes.

4. The issue of other confounds

A fourth and related issue is that some (typically older) studies fail to control for other confounding variables in the environment that might explain correlations between parental physical punishment and childhood problem behaviour. While the number of better-controlled longitudinal studies has increased (and many of these studies still show statistically significant relationships between parental physical punishment and detrimental child outcomes) there is some evidence to suggest that the relationship between physical punishment and childhood problem behaviour become minimal when baseline levels of problem behaviour and other environmental variables (e.g. parents’ mental health) are controlled for. For example, using longitudinal data, Morris & Gibson (2011) found that child and family characteristics of those subjected to physical punishment are substantially different from characteristics of those not punished. Using propensity-score matching (a method well suited to testing confounding effects) they found that when children exposed to physical punishment are matched on their likelihood of being punished, “the relationship between punishment and subsequent aggression and delinquency become statistically nonsignificant and substantively small” (Morris & Gibson, 2011, p.818.).

Similarly, Ferguson’s (2013) meta-analysis which is the only meta-analysis to have controlled for the family environment, parents’ mental health and the child’s pre-existing behaviour problems, found that with the inclusion of these controls the effect sizes for the relationship between physical punishment and childhood externalising and internalising problems were
reduced to “largely trivial” levels (though statistical analysis still showed a small yet statistically significant link between physical punishment and these outcome categories – see discussion of statistical versus practical significance above).

5. Individual differences and the importance of context

The way much of the research in this area is presented implies that the average correlation between physical punishment and a particular outcome applies equally to all children in all circumstances. However, there is some research to suggest that not all children experience equal effects from physical punishment. Some suggest that the effects of physical punishment are moderated by the meaning that a child ascribes to physical punishment which is in turn influenced by the parenting context, age, sex and culture of the child (Deater-Deckard & Dodge, 1997; Gunnoe & Mariner, 1997). Similarly, research suggests physical punishment is more strongly linked to aggressive and anti-social behaviour with increased age (Gershoff, 2002). One more recent study suggests this might be because the negative effect of physical punishment on child aggression is greater in the presence of genetic risk (Edwards et al., 2010). Of course, this issue is not unique to this research field. Overall, while this evidence cautions against assuming uniform effects, its practical significance in terms of understanding the effects of parental physical punishment is debatable.

Furthermore, parental physical punishment varies in type, frequency and severity. Larzelere & Kuhn’s (2005) meta-analysis claimed to identify an optimal type of and context for physical discipline, which they termed conditional spanking. Conditional spanking was defined as non-abusive (“two open-hand swats to the buttocks when a parent is not angrily out of control”) and used when a child responds defiantly to milder disciplinary tactics such as time-out (based mostly on research on two to six year-olds). They found this type of physical punishment led to less noncompliance or aggression than ten of the thirteen alternative disciplinary tactics tested and produced outcomes equivalent to those of the remaining three tactics (e.g. brief room isolation). Their theory is that conditional spanking teaches a child to cooperate with the milder disciplinary tactic, thereby making physical punishment less necessary in the future. Overall, Larzelere and Kuhn (2005) concluded that conditional physical punishment is effective for achieving immediate compliance under certain circumstances when used with two to six year olds.

For example, not all victims of child sexual abuse develop mental health or adjustment difficulties in adulthood (Cashmore & Shackel, 2013).

In part based on the experimental studies by Roberts and other described earlier in this review.
However, the generalisability of these findings to all children is questionable. The studies included in this meta-analysis used small sample sizes, focused on young, clinically defiant children and the results have not been replicated recently. In addition, the practicality of Larzelere and Kuhn’s (2005) conclusions - communicating to parents and regulating an optimal type of physical discipline - is arguably poor. Specifically, Larzelere and Kuhn’s definition of conditional spanking is so narrow that it seems unrealistic to expect that parents who use physical punishment would adhere to it. Larzelere would argue that clarifying the optimal type of physical punishment (specifically “two open-hand swats to the buttocks” used in a controlled manner as a back up to ‘time-out’) would be easier for parents to put into practice than for them to learn to use the brief room isolation correctly. However, parental motivations and attitudes are fundamental to this idea of a ‘controlled manner’, and as Benjet and Kazdin (2003) note, most parents who use physical punishment believe that is it “a response to some child behaviour that requires discipline”, and therefore, “making recommendations to the public and parents, condoning or sanctioning spanking based on the parent’s reasons or motivations for spanking is not helpful” (Benjet & Kazdin, 2003, p.221).

6. Meta-analytic issues

In some ways it is not surprising that the meta-analyses in this area reach different conclusions. They use different inclusion criteria, and so do not analyse the same studies. In part, the weaknesses with the meta-analytic reviews in this area are historical artefacts - the quality of meta-analytic methods has improved over the last fifteen years. However, there are a few pertaining issues which raise questions about the quality of the evidence from the five key meta-analyses in this area.

Several of the meta-analyses are conceptually flawed. They try to make causal claims based on analyses which combine a mixture of different study designs (as though they test the same hypothesis) which is inappropriate for causal reasoning (see for example Gershoff, 2002; Paolucci et al., 2005). Though Ferguson’s (2013) meta-analysis reviewed fewer studies than the other meta-analyses (thus reducing its statistical power) it is arguably the strongest in terms of making causal claims. This is because it includes only longitudinal studies and is the only meta-analysis which controls for key confounding variables meaning the effects observed take into account pre-existing child behaviours increasing the strength of the claims. The fact that Ferguson’s (2013) effect sizes were small to the extent of being interpreted as ‘trivial’ (though still statistically significant) when confounding variables were included makes the results of other meta-analyses which failed to include confounds seem questionable.
That said, while Ferguson’s (2013) three broad child outcomes categories (internalising behaviour, externalising behaviour and cognitive performance) are suitable for testing big picture relationships between physical punishment and child outcomes, it could be that more narrowly defined outcomes demonstrate different effects.

7. The significance of cultural norms

Finally, the controversial nature of the topic and shifting public attitudes also raises concerns about social desirability bias (or conversely exaggerated responses) in this area of research, not to mention the possibility of same source bias (single responders) in some studies. There is also the possibility that the effects of physical punishment are moderated by cultural norms. Older research found fewer adverse outcomes (and in one study beneficial outcomes) of parental physical punishment in African-American families (Larzelere, 2000), but more recent studies have found equivalent outcomes across American ethnic groups. The change might be because parental physical punishment has become less prevalent and accepted among African-American families. Indeed, two studies showed that physical punishment has more adverse outcomes when implemented by parents who do not endorse the use of physical punishment (McLoyd et al., 2007; Deater-Deckard et al., 2005). Given that cultural norms are constantly changing the inclusion of older studies in some of the meta-analyses in this area may muddy the findings. It would be possible to overcome this by conducting a cumulative meta-analysis looking at changes in study findings over time.

23 Furthermore, the timing of outcome measurements could pose problems in terms of magnitude of effect; retrospective designs are particularly problematic for the adult outcome studies because the time lag is so long.
Glossary

**Physical punishment** – Any punishment in which physical force is used and intended to cause some degree of pain or discomfort, however light.

‘Reasonable punishment’ – Section 58 (Children Act 2004) states that for any injury to a child caused by a parent or person acting in loco parentis which amounts to more than a temporary reddening of the skin, and where the injury is more than transient and trifling, the defence of reasonable punishment is not available.

**Correlation** – The process of establishing the degree of relationship or connection between two or more variables. A correlation between two variables does not imply causation.

**Effect size** – A simple way of quantifying the difference between two groups.

**Confounding factors** - Factors which may explain some or all of the relationship between two or more other variables. Researchers can control for some confounding variables in their analyses to increase confidence in an observed link between two variables, or conversely, to suggest that other factors might account for an observed link between the two.

**Experimental study designs** - Participants are randomly assigned to conditions. These are the best study designs for establishing causal relationships.

**Longitudinal study designs** – Data is gathered on the same participants over a period of time to determine whether two or more variables are related. These studies are limited in ability to control confounding factors.

**Cross-sectional study designs** – Data is gathered at one point in time to determine whether two or more variables are related. These studies are limited in ability to control confounding factors.

**Retrospective study designs** – Data is gleaned from past records to determine whether two or more variables are related. These studies are limited in ability to control confounding factors.

**Meta-analysis** - A procedure used to combine data from multiple studies leading to a higher statistical power (ability to detect an effect) than is possible from an individual study.
References


Horgan, G. (2002). It's a Hit, Not a 'smack': A Booklet about what Children Think about Being Hit Or Smacked by Adults.


Keating, H. (forthcoming). Legislating to prohibit parental physical punishment of children. PPIW.


Sherbert Research. (2007). A study into children’s views on physical discipline and punishment. DCSF and COI.


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