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The use of corporal punishment and physical disciplinary techniques by Flemish mothers

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Abstract

Corporal punishment (CP) of children has many negative consequences, yet many parents still use CP to discipline their child. This study used an online questionnaire to determine the prevalence of CP among Flemish mothers, which specific physical disciplinary techniques (PDT) they consider CP and which PDT they use. In addition, the association of attitudes regarding CP, personal experiences with CP and cultural acceptance with the use of CP was examined. A total of 411 Flemish mothers with a child aged between 2 and 11 years participated in the study. About 38% of the mothers reported to use CP. In case of the use of PDT, they mostly used mild PDT. The results also show that there is a lack of consensus regarding the conceptualization of CP among Flemish mothers. Furthermore, positive attitudes towards the use of CP was a predictor of its use. Because the use of CP is associated with many negative consequences, it is important to set up prevention programmes to dissuade mothers form using of CP, to alter positive attitudes regarding CP and to raise awareness regarding the negative impact of CP on the development of children.

KEYWORDS

attitudes, corporal punishment, cultural acceptance, personal experiences, physical disciplinary techniques, survey

1 | INTRODUCTION

Corporal punishment (CP) is considered a form of violence that violates children's rights regarding protection, dignity and physical security by the UN committee on the Rights of the child (United Nations Committee on the rights of the child, 2006). CP is the most frequent type of violence used against children. It causes death to thousands of children every year, and the number of children suffering daily from the consequences and injuries of CP is even higher (Bassam et al., 2018; Krug et al., 2002). CP refers to physical punishment that generally has the intention to cause pain but not lasting harm. It can include less severe physical punishments such as pinching and spanking (with or without an object) and very severe punishments such as burning and shaking (Fréchette & Romano, 2017; Straus & Donnelly, 2001). Although the use of CP is increasingly considered a form of violence, many parents continue to use mild physical disciplinary techniques (PDTs) as a mean to correct their children. Possible explanations are that parents do not consider these mild PDT as CP or that they are not aware that also mild PDT cause harm. Fortunately, severe disciplinary techniques are seldom used (Fréchette & Romano, 2017; Larzelere & Kuhn, 2005; Straus et al., 2014).

Although the purpose of CP is to correct or to control the child's behaviour, results regarding the effect on the children's behaviour are inconclusive (Gershoff, 2002). Some studies have shown that the child's negative behaviour stops when using CP (Bean & Roberts, 1981). Other research, however, found that a child's immediate obedience decreases when CP is used (Roberts & Powers, 1990). Moreover, a narrative review (Heilmann et al., 2021) on the outcomes of CP shows that it consistently predicts an increase of child

behaviour problems and a higher risk of involvement with child protective services. These detrimental child outcomes are robust across child and parent characteristics. CP is not associated with positive outcomes over time.

Between 2005 and 2013, UNICEF collected data from 62 different countries to measure the magnitude of CP. Results show that four in five children, between the ages of 2 and 14, face CP in their domestic environment (United Nations Children's Fund, 2014). Fréchette and Romano (2017) found that 37.9% of Canadian parents, with a child aged between 2 and 11 years old, have used CP at least once in their lifetime to discipline their child. In addition, Gonzàlez and colleagues (2014) found that 41% of Colombian parents, with a child aged between 5 and 8 years, used CP to discipline their child. Furthermore, Finkelhor et al. (2019) found that 49% parents with a child aged between 0 and 9 and 23% parents with a child aged between 10 and 17 slapped their child the past year in the USA. Gershoff et al. (2012) even found that 80% of US mothers had spanked their toddler at some time, and 27% reported spanking their child during the last week. In line with these results, Vittrup et al. (2006) found that up to 68% of mothers in the USA spanked their child of 3 years old last week. Wissow (2001) reported that 67% of US mothers of 2- to 3-year-old children had spanked the child once in his/her lifetime. Lastly, a Belgian study examining which disciplinary techniques parents use to correct their child found that 18% of the parents yell at their child, 14% isolate their child, 9% spank their child, 10% isolate their child in a chamber, 6% grab or push their child, 5% grab their child with the ears and 5% of the parents beat their child with a fist or foot (Défense des Enfants International Belgique, 2021).

Little consensus exists regarding the definition and the specific behaviours parents perceive as forms of CP (Fréchette & Romano, 2017). To set up sensibilization campaigns and prevention programmes, it is necessary to gain insight in how many parents use CP, which specific PDT they use and which PDT they consider CP. To target programmes and campaigns, it is important to identify factors, such as cultural norms, attitudes regarding CP and childhood experience with CP that characterize groups of parents. The aim of this study is to add to the knowledge base regarding the use and the conceptualization of CP.

1.1 | Consequences of CP

According to four meta-analyses, CP causes a range of health, developmental and behavioural problems in both the short and long term (Ferguson, 2013; Gershoff, 2002; Gershoff & Grogan-Kaylor, 2016; Paolucci & Violato, 2004). Children who have been corporally punished are more likely to become externally motivated to behave correctly rather than intrinsically. CP teaches them how to misbehave without being caught (Dix & Grusec, 1983; Gershoff, 2002). Furthermore, by using CP, parents normalize aggressive behaviour and show that it is an effective way to get what you want, which makes children more likely to become aggressive and to exhibit criminal/delinquent behaviour (Gershoff, 2002; Gershoff & Grogan-Kaylor, 2016; MacKenzie et al., 2013; Paolucci & Violato, 2004). Additionally, CP is linked to mental health problems, both in childhood and in adult life (Afifi et al., 2014; Ferguson, 2013; Gershoff, 2002; Gershoff & Grogan-Kaylor, 2016; Paolucci & Violato, 2004), physical injuries (Afifi et al., 2014; Lau et al., 1999) and problems with cognitive development and education (Alyahri & Goodman, 2008; Straus & Paschall, 2009). Several studies even found that stress and fear caused by CP affect the brain structure and function (Cuartas et al., 2021; Tomoda et al., 2009). Finally, the use of CP heightens the risk of a deterioration of the bond between parent and child (Gershoff, 2002; Gershoff & Grogan-Kaylor, 2016).

1.2 | Associated parent variables to CP

Although some child characteristics are associated with the use of CP (CP is more frequently used with younger children and with boys [Vittrup et al., 2006]), it is important to identify parents using CP, as any amount of CP places children at risk (Fréchette et al., 2015). Previous research found several factors associated with the likelihood using CP. These factors are parental attitudes, cultural norms and childhood experiences (Fréchette & Romano, 2017; Vittrup et al., 2006).

1.2.1 | Parental attitudes

Parents' attitudes towards CP are a strong predictor of its use. Studies found that parents use CP because they believe that it is a useful and effective manner to end problem behaviour of the child (Ateah & Durrant, 2005; Fréchette & Romano, 2017). These specific attitudes regarding CP are formed early in parenthood (Vittrup et al., 2006). However, a discrepancy between attitudes and behaviour is observed, and the correlation between both attitudes and CP seems not to be systematic (Cappa & Khan, 2011). For example, the proportion of parents reporting to believe that it is necessary to use CP to rear a child outnumbers the proportion of parents reporting to use CP (Lansford et al., 2010). The latter suggests that this relationship might be moderated by other factors (Fréchette & Romano, 2017).

1.2.2 | Cultural acceptance

Parents tend to use disciplinary techniques of which they believe they are used and approved by peers and members of their cultural group. Lansford et al. (2005) found that if CP is normalized, a more frequent use is reported by mothers. Furthermore, mothers are more likely to use CP if it is encouraged and approved by family and friends (Taylor et al., 2011; Walsh, 2002).

1.2.3 | Personal experiences with CP

Previous studies found that parents, who have been physically punished as a child, are more likely to approve and use CP themselves.

This relation is moderated through the perception they have on the disciplinary practices they experienced (Bower-Russa et al., 2001; Gagné et al., 2007; Rodriguez & Price, 2004). If CP took place in a warm and supportive context, the perception of CP is much more positive (Bell & Romano, 2012). This finding fits with the social-cognitive perspective of Bandura (1986): People model the behaviour to which they were exposed in childhood. In other words, exposure to CP in childhood legitimizes the use of CP with the own children (Gagné et al., 2007). However, when parents felt threatened, humiliated or ridiculed when receiving CP, they are more likely to be opposed to CP and less likely to use it (Bell & Romano, 2012; Gagné et al., 2007). Yet, some studies did not find a relation between personal experiences with CP and the use of CP (Ateah & Durrant, 2005; Fréchette & Romano, 2017).

1.3 | Aim of the present study

CP has a negative impact on a child's development and wellbeing. Yet, it is often used by parents to correct and discipline children (Ferguson, 2013; Gershoff, 2002; Gershoff et al., 2012; Paolucci & Violato, 2004). Little consensus on the conceptualization of CP exists (Benjet & Kazdin, 2003). The purposes of this study are threefold. First, we want to examine how many parents use CP. Second, we want to investigate which PDT Flemish mothers consider CP. Finally, the association of (1) attitudes towards the use of CP, (2) cultural acceptance and (3) personal experiences with CP will be examined.

2 | METHODS

2.1 | Procedure and participants

Participants were recruited with convenient sampling. Schools, clubs and youth associations from the region Pajottenland (a region south west of Brussels in the province Flemish-Brabant) were asked to distribute the link of the online questionnaire via e-mail to the mothers of their pupils and/or members. Furthermore, the link was also distributed through two social media channels (Facebook and LinkedIn). Only mothers were invited to participate as predominately mothers participate in this kind of research (cfr., Fréchette & Romano, 2017) and as mothers tend to use CP more than fathers (Grogan-Kaylor & Otis, 2007). Prior to answering the questionnaire, participants were informed about the purpose, duration and procedure of the study.

Participants had to meet following inclusion criteria: (1) speak Dutch; (2) be a biological-, step-, adoptive- or foster mom; (3) have a child aged between 2 and 11 years old; and (4) live in Flanders. In total, 534 mothers agreed to participate in the study. Seventeen of them did not live in Flanders and were excluded. In addition, from 106 participants, too much data were missing resulting in 411 mothers that were included in the study. Respondents had a mean age of 37 years ($SD = 5.27$). Most participants were biological mothers (93.2%). They lived in a two-parent household (88.1%), and most families consisted of four family members (48.2%). Most mothers and their partners had a diploma in higher education (respectively 80.4% and 65%). The mother's partners worked mostly full time (92.3%) in comparison with the mothers themselves (54.3%). Most of the participants were native Belgian (96.8%) and had West-European origin (96.1%).

The respondents had to answer questions regarding the use of CP with their children. If they had more than one child, they were asked to answer the questions with their youngest child in mind, as CP tends to decrease with increasing child age and to avoid the confounding of one care giver reporting for more than one child in the same household. The mean age of the children they reported on was 5.69 years ($SD = 2.88$), and the gender of the children was equally distributed (Table 1).

When comparing respondents with too many missing data with the 411 participants, differences were found regarding religion (religious vs. not religious) ($\chi^2 = 6.68$, $p = 0.010$) and migration (native Belgian vs. immigrant) (Fisher's exact test $p = 0.011$). Respondents with too many missing data consisted significantly of more mothers with an immigrant background and religious persons in comparison with the response group. When comparing age, number of household members and migration status (native Belgian or not) of our sample with the latter characteristics of mothers of children from 2 to 11 years of the Flemish population, we found no difference regarding the age (mean population = 37.09). However, the number of household members of our sample was significantly smaller (population = 5.91, $t(410) = -35.495$, $p < 0.001$), and our sample consisted of significantly more native Belgian mothers (population = 65%, $\chi^2 = 181.513$, $p < 0.001$). When comparing age and gender of the children of our sample with age and gender of children between 2 and 11 years old of the Flemish population (in 2020, respectively, 6.63 years, and 49% girls and 51% boys), the children in our sample were significantly younger ($t(410) = -6.624$, $p < 0.001$); they did not differ regarding gender ($\chi^2 = 0.004$, $p = 0.952$).

2.2 | Instruments

Mothers were questioned concerning their youngest child with an online questionnaire based on the questionnaire used by Fréchette and Romano (2017). The components of the online questionnaire are described below.

2.2.1 | Outcome variables

The use of CP was measured with an item of the Parent Practices Scale (Strayhorn & Weidman, 1988): 'How often do you use CP when your child breaks the rules or does things s/he is not supposed to?', scored on a 5-point scale (0 = 'never'–4 = 'always'), with higher scores indicating more frequent use of CP. Answers were

TABLE 1 Characteristics of the respondents and the children.

Variable	Range/value	*M* (*SD*)/*n* (%)	*N*
Age (years)—mother	25–61	37.13 (5.27)	410
Relation between mother and child	Biological mother	383 (93.2)	411
	Non-biological mother	28 (6.8)	
Family structure	Single-parent family	49 (11.9)	411
	Two-parent family	362 (88.1)	
Family size	1–9	4.02 (1.08)	411
Highest obtained diploma	No diploma higher education	90 (19.6)	411
	Higher education (non-university degree)	202 (43.9)	
	Higher education (university degree)	168 (36.5)	
Highest obtained diploma partner	No diploma higher education	144 (35.0)	411
	Higher education (non-university degree	133 (32.4)	
	Higher education (university degree)	93 (22.6)	
	Irrelevant (no partner)	41 (10.0)	
Work situation	Parttime	159 (38.78)	410
	Fulltime	220 (53.60)	
	Unemployed	31 (7.56)	
Work situation partner	Parttime	17 (4.14)	411
	Fulltime	342 (83.21)	
	Unemployed	11 (2.68)	
	Irrelevant (no partner)	41 (10.0)	
Total annually family income	€10.000–€35.000	95 (23.1)	406
	€35.000–€45.000	126 (30.4)	
	>€45.000	185 (45.0)	
Flemish province of residence	Antwerp	103 (25.1)	411
	Flemish Brabant	145 (35.3)	
	Western Flanders	45 (10.9)	
	Eastern Flanders	79 (19.2)	
	Limburg	39 (9.5)	
Ethnic origin	Western European	393 (96.1)	409
	Non-Western European	16 (3.9)	
Religion	Religious	247 (60.1)	411
	Non-religious	164 (39.9)	
Migration status	Native	395 (96.8)	408
	Immigrant	13 (3.2)	
Age (years)—child	2–11	5.69 (2.88)	411
Gender—child	Girl	202 (49.1)	411
	Boy	209 (50.9)	

dichotomized. All answers different from zero equated to the use of CP. This procedure counters underreporting and was used in previous research (e.g., Fréchette & Romano, 2017; Vittrup et al., 2006).

The frequency of the use of specific PDT was measured with 13 items of the Parent–Child Conflict Tactics Scales (Straus et al., 1998), 1 item of the Dimensions of Discipline Inventory (Straus & Fauchier, 2007) and 6 items of the Joint Statement on Physical Punishment of Children and Youth (Durrant et al., 2004). The items of the Parent–Child Conflict Tactics Scales were rated on a 8-point scale (0 = 'this has never happened'–7 'this happened more than 20 times past year'). Items of the Dimensions of Discipline Inventory and the Joint Statement on Physical Punishment of Children and Youth were scored on a 11-point scale (0 = 'never'–10 = 'twice or more a day'). Again answers were dichotomized, and all answers different from zero equated to the use of a specific PDT. Participants were also asked whether they considered these 20 specific PDT as CP. The response options were as follows: 'no', 'a little' and 'very much'.

2.2.2 | Characteristics associated with the use of CP

Each of the three characteristics (Attitudes regarding CP, cultural acceptance of CP and personal experiences with CP) were measured with four PDT of the CP-scale from the Dimensions of Discipline Inventory (Straus & Fauchier, 2007): grabbing or shaking the child to get attention; giving a pat, swat or slap; using a paddle, hairbrush, belt or other object to punish a child; washing the mouth with soap, applying hot sauce to the tongue or something similar.

Attitudes regarding CP were measured by asking respondents how much they favoured the use of the four PDT mentioned above. Items were scored using a 4-point scale (0 = *never OK* to 3 = *always or almost always OK*). Scores were summed, with higher scores indicating more favourable attitudes towards CP. The internal consistency of this scale was low ($\omega = 0.47$).

Cultural acceptance were measured by asking the participants to think about friends or family that are important to them and to indicate the extent to which most of these friends/family would approve the use of the four PDT mentioned above. Responses were measured on a 4-point scale (0 = *never OK* to 3 = *always or almost always OK*). Scores were summed, with higher scores indicating greater perceived acceptance. The internal consistency of this scale was low ($\omega = 0.55$).

Childhood experiences with CP of the mothers were measured by asking their childhood experiences (around age 10) regarding the four PDT mentioned above using a 11-point scale (0 = *never* to 10 = *two or more times a day*). Scores were summed, with higher scores indicating greater childhood CP experiences. The internal consistency of this scale was good ($\omega = 0.86$).

2.2.3 | Control variables

In order to examine whether mothers gave socially desirable responses, 13 items from the Limited Disclosure Scale of the Personal and Relationship Profile scored on a 4-point scale were used (0 = *totally disagree* to 3 = *totally agree*) (Straus & Fauchier, 2007). The scale score is the sum of all items, and higher total scores indicate higher social desirability. The internal consistency of the scale was good ($\omega = 0.68$).

2.2.4 | Characteristics of participants

Some socio-demographic characteristics from the respondents were collected, such as gender and age of mother and child, professional status (parttime, fulltime or unemployed) of the mother and their partner (if applicable), highest obtained diploma (no diploma higher education, diploma higher education non-university and diploma higher education university) of the participant and their partner (if applicable), migration status (native or immigrant), the yearly income (€10.000–€35.000; €35.000–€45.000 or >€45.000) and the relation between mother and child (biological or non-biological mother).

2.3 | Statistical analyses

To identify the use of CP (yes/no), which specific PDT mothers considered CP and which PDT they use was analysed with descriptive analysis. To examine differences regarding the use of specific PDT between mothers who reported to use CP and mothers reporting not to use CP, chi-square tests and Fisher's exact tests were used, and effect sizes Cramer's *V* were computed. Effect sizes *V* are considered as small (0.10), moderate (0.30) and large (0.50) (Kim, 2017). Mothers were classified into four groups based on the reporting of using CP (yes/no) and using PDT (yes/no). The first group consisted of participants who reported using CP and at least one PDT. A second group reported using CP but did not report the use of a PDT from the list. The third group consisted of mothers who reported not using CP but reported to use at least one PDT. The last group reported not using CP and not using PDT. Based on one-factor analysis of variance (ANOVA)'s and post-hoc multiple comparisons (with Bonferroni correction), differences between the groups were examined regarding acceptance, attitudes towards CP and personal experiences with CP. Association of group membership with the characteristics of the participants was investigated with on-factor ANOVA and chi-square tests. A multinomial logistic regression was used to examine whether cultural acceptance, attitudes towards the use of CP and personal experiences with CP were associated with group membership while controlling for the significant characteristics of the participants and social desirability. The assumption of absence of multicollinearity between the independent variables was met.

3 | RESULTS

3.1 | Descriptive statistics

3.1.1 | The use of CP and specific PDT

Findings show that 38.4% of mothers reported using CP when their child misbehaves. At least 74% of participants considered the listed PDT as CP (answer 'very much'). However, 6–10% of respondents did not consider a specific PDT as CP. Both mild (e.g., hitting on the hand, arm or leg) and extreme PDT (e.g., forcing physical activity) were less considered as CP (see Table 2). The PDT most used by the respondents were hitting him/her on a hand, arm or leg (43.1%); hitting him/her with the bare hand on the bottom (31.9%); pinching (22.6%); and isolating him/her in a closed space (16.3%) (see Table 3).

The association between endorsing CP and the use of a specific PDT was examined. In line with Fréchette and Romano (2017), PDT used by 1% of the participants or less were not included in these analyses. Mothers who reported to use CP used significantly more specific PDT with exception of throwing or knocking down (Fisher's exact

TABLE 2 Specific physical disciplinary techniques considered as corporal punishment.

Specific physical disciplinary techniques	No (%)	A little (%)	Very much (%)	N
Hitting with the bare hand on the bottom	26 (6.3)	53 (12.9)	331 (80.7)	410
Hitting with a belt, hairbrush, stick or other hard object on the bottom	30 (7.3)	1 (0.2)	380 (92.5)	411
Hitting on some other part beside the bottom with belt, hairbrush, stick or other hard object	30 (7.3)	1 (0.2)	380 (92.5)	411
Hitting on the hand, arm or leg	23 (5.6)	61 (14.9)	325 (79.5)	409
Hitting on the face, head or ears	28 (6.8)	6 (1.5)	377 (91.7)	411
Hitting with the fist or kicking hard	31 (7.5)	0 (0.0)	380 (92.5)	411
Pinching	30 (7.4)	45 (11.0)	333 (81.6)	408
Shaking	29 (7.1)	16 (3.9)	366 (89.1)	411
Throwing or knocking down	30 (7.3)	1 (0.2)	380 (92.5)	411
Beating up	31 (7.5)	0 (0.0)	380 (92.5)	411
Grabbing around the neck and choking	31 (7.5)	1 (0.2)	379 (92.2)	411
Burning on purpose	32 (7.8)	0 (0.0)	379 (92.2)	411
Threaten with a knife or gun	33 (8.0)	6 (1.5)	372 (90.5)	411
Washing the mouth with soap, put hot sauce on the tongue or something similar	32 (7.8)	3 (0.7)	376 (91.5)	411
Forcing to stand or sit in a painful position	32 (7.8)	3 (0.7)	376 (91.5)	411
Forcing to kneel on sharp or painful objects	32 (7.8)	1 (0.2)	377 (92.0)	410
Refusing use of toilet	33 (8.1)	15 (3.7)	361 (88.3)	409
Forcing physical activity	36 (8.8)	25 (6.1)	347 (85.0)	408
Denying access to water, food and sleep	34 (8.3)	13 (3.2)	361 (88.5)	408
Isolating in a closed space	39 (9.6)	67 (16.4)	302 (74.0)	408

test $p = 0.09$, $V = 0.087$) and forcing physical activity (Fisher's exact test $p = 0.09$, $V = 0.09$). They used significantly more: hitting the child on the arm, hand or leg ($\chi^2 = 104.65$, $p < 0.001$, $V = 0.51$); hitting the child with the bare hand on the bottom ($\chi^2 = 98.63$, $p < 0.001$, $V = 0.49$); hitting on the face, head or ears ($\chi^2 = 47.00$, $p < 0.001$, $V = 0.34$); hitting the child with an object on the bottom (Fisher's exact test $p < 0.03$, $V = 0.11$); pinching ($\chi^2 = 21.46$, $p < 0.001$, $V = 0.23$); shaking ($\chi^2 = 20.07$, $p < 0.001$, $V = 0.22$); and isolating in a closed space ($\chi^2 = 30.88$, $p < 0.001$, $V = 0.27$) (see Table 4). The association was the strongest in the case of mild PDT.

3.1.2 | Cultural acceptance, attitudes and personal experience with CP

Mean scores of cultural acceptance ($M = 1.23$, $SD = 1.16$), as well as attitudes towards the use of CP ($M = 0.75$; $SD = 0.87$) and personal experiences with CP ($M = 4.39$, $SD = 5.22$), were at the lower limit of the possible range (see Table 5).

3.2 | Group membership

The participants were allocated to four different groups. Group 1 consisted of mothers reporting to use CP and at least one PDT ($n = 151$, 36.74%). Group 2 included participants reporting to use CP but not to use PDT ($n = 7$; 1.70%). Because of the small sample size, Group 2 was not included in further analysis anymore. Group 3 consisted of mothers reporting not endorsing CP but who reported using at least one PDT ($n = 107$, 26.03%). They reported the use of mostly mild PDT, such as hitting the child with the bare hand on the bottom ($n = 36$); hitting on the hand, leg or arm ($n = 59$); and pinching ($n = 38$). However, some mothers of this group also reported using more extreme punishments, such as throwing or beating down ($n = 3$), washing the mouth with soap ($n = 2$) and forcing to stand or kneel in a painful way ($n = 2$). Group 4 consisted of mothers reporting not to use CP and not using any specific PDT ($n = 146$, 35.52%).

3.2.1 | Determinants group membership

One-way ANOVA and post-hoc multiple comparisons (with Bonferroni correction) were done to examine if the three groups differed regarding the independent variable (acceptance, attitudes and experiences). Groups 1, 3 and 4 significantly differed regarding cultural acceptance ($F(2, 391) = 37.65$, $p < 0.001$) and attitudes ($F(2, 391) = 63.19$, $p < 0.001$). Mothers of group 1 had higher scores regarding cultural acceptance and more positive attitudes than

TABLE 3 Using specific physical disciplinary techniques.

Physical disciplinary technique	% Yes (*n*)	% No (*n*)
Hitting with the bare hand on the bottom	31.9 (131)	68.1 (280)
Hitting with a belt, hairbrush, stick or other hard object on the bottom	1.5 (6)	98.5 (405)
Hitting on some other part beside the bottom with belt, hairbrush, stick or other hard object	0.5 (2)	99.5 (409)
Hitting on the hand, arm or leg	43.1 (177)	56.9 (234)
Hitting on the face, head or ears	11.2 (46)	88.8 (365)
Hitting with the fist or kicking hard	0.5 (2)	99.5 (409)
Pinching	22.6 (93)	77.4 (318)
Shaking	10 (41)	90 (370)
Throwing or knocking down	2.2 (9)	97.8 (402)
Beating up	0 (0)	100 (411)
Grabbing around the neck and choking	0.2 (1)	99.8 (410)
Burning on purpose	0 (0)	100 (411)
Threaten with a knife or gun	0.2 (1)	99.8 (410)
Washing the mouth with soap, put hot sauce on the tongue or something similar	0.5 (2)	99.5 (411)
Forcing to stand or sit in a painful position	1.0 (4)	99.0 (407)
Forcing to kneel on sharp or painful objects	0.2 (1)	99.8 (410)
Refusing use of toilet	0.5 (2)	99.5 (409)
Forcing physical activity	3.2 (13)	96.8 (398)
Denying access to water, food and sleep	1.0 (4)	99.0 (407)
Isolating in a closed space	16.3 (67)	83.7 (344)

mothers of the other groups ($p < 0.001$). In addition, mothers of group 3 had higher scores regarding cultural acceptance and more positive attitudes than mothers of group 4 ($p < 0.001$). Personal experiences with CP also differed significantly between groups ($F(2, 383) = 5.98$, $p < 0.005$). Mothers of group 1 had a significantly higher scores than mothers of group 4 ($p = 0.002$). No differences were found between groups 1 and 3 ($p = 1.00$) and groups 3 and 4 ($p = 0.098$). Furthermore, the association of all socio-demographic characteristics with group membership was examined. Only gender ($\chi^2(2) = 14.20$, $p < 0.001$) and age of the child ($F(2, 403) = 3.36$, $p = 0.036$) were associated with group membership.

Next, a multinominal logistic regression was done. All significantly associated variables and social desirability were included in this model. A statistically significant model was found ($\chi^2(12) = 148.12$, $p < 0.001$, Nagelkerke $R^2 = 0.37$) explaining about 37% of the variance. Mothers with higher cultural acceptance were more likely to belong to group 1 compared with mothers of group 4 (the reference group) (Exp(B) = 1.81, $p < 0.001$). Mothers with more positive attitudes regarding CP had a fivefold higher likelihood to belong to group 1 (Exp(B) = 5.16, $p < 0.001$) and a threefold higher likelihood to belong to group 3 (Exp(B) = 3.58, $p < 0.001$). Furthermore, mothers of boys were more likely to belong to group 1 (Exp(B) = 2.03, $p < 0.05$). Finally, higher scores on the social desirability scale were associated with a smaller likelihood to belong to group 3 (Exp(B) = 0.93, $p < 0.05$). Personal experiences with CP and age of the child were not significantly associated with group membership anymore (Table 6).

4 | DISCUSSION

The aim of this study was to examine how many Flemish mothers use CP, which PDT they consider CP, and if positive attitudes towards the use of CP, cultural acceptance and personal experiences with CP are associated with the use of CP.

About 38% of mothers reported to use CP as a mean to discipline their children between 2 and 11 years old. This number is in line with results of previous research (Finkelhor et al., 2019; Fréchette & Romano, 2017; González et al., 2014; Straus, 2010) reporting that between 37% and 41% of parents use CP to discipline their child. Furthermore, most participants (at least 74%) identified the listed PDT as CP. Although experts consider all listed disciplinary techniques as PDTs, about 6–10% of participants did not consider both mild *and* extreme PDT as CP. For example, about 8% of respondents did not label 'burning on purpose', an extreme PDT, as CP. Finally, although reporting to endorse CP was significantly associated with reporting the use of (mild) PDT, up to 14% of mothers claimed not to endorse CP but at the same time reported the use of PDT. This happened more in the case of mild PDT but was also true for extreme PDT such as 'forcing physical activity' and 'throwing or knocking down' (respectively, 5 and 3 mothers). An explanation for difficulties in identifying extreme PDT as CP can be that respondents considered extreme PDT to be child abuse instead of CP. However, if the latter explanation is not true, this is a worrisome situation. Indeed, it would mean that 6–10% of Flemish mothers consider extreme PDT not as CP but as non-CP disciplinary techniques that are allowed at all times. The incapacity of identifying mild PDT as CP is probably the result of the fact that mild PDT such as hitting the hand, arm or leg are common discipline strategies used by many parents (Fréchette et al., 2015). Anyway, the results show that there is a lack of consensus regarding the conceptualization of CP by Flemish mothers (Benjet & Kazdin, 2003; Ripoll-Núñez & Rohner, 2006).

More than 40% reported to use mild PDT such as hitting the child on an arm, leg or hand (43%) and hitting the child on the buttocks with a bare hand (32%). The use of more extreme PDT was reported by less than 3% of the respondents. These findings are in line with results from earlier research (e.g., Finkelhor et al., 2019; Fréchette & Romano, 2017; Wissow, 2001). On the one hand, this finding is hopeful. It shows that for the majority of children, CP is not used. This finding is even more promising, if it would fit in an internationally found abandonment of CP (e.g., Finkelhor et al., 2019). However, this is not known for Flanders. Nevertheless, as (mild) PDTs are still used by many mothers, and as socially desirable answers might have led to an underreporting of the use of PDT, these findings points out that continued dissemination of information on possible harms of CP is necessary.

TABLE 4 Association between the use of specific physical disciplinary techniques and corporal punishment.

Specific disciplinary technique		CP no (253)	CP yes (158)	χ^2/FE	V
Hitting on the hand, arm or leg	No	194	40	104.65**	0.51
	Yes	59	118		
Hitting with the bare hand on the bottom	No	218	62	98.63**	0.49
	Yes	35	96		
Hitting with a belt, hairbrush, stick or other hard object on the bottom	No	252	153	FE*	0.11
	Yes	1	5		
Pinching	No	215	103	21.76**	0.23
	Yes	38	55		
Shaking	No	241	129	20.07**	0.22
	Yes	12	29		
Hitting on the face, head or ears	No	246	119	47.00**	0.34
	Yes	7	39		
Throwing or knocking down	No	250	152	FE	0.09
	Yes	3	6		
Isolating in a closed space	No	232	112	30.88**	0.27
	Yes	21	46		
Forcing physical activity	No	248	150	FE	0.09
	Yes	5	8		

Note: Only physical disciplinary techniques with a frequency greater than 1% were included.
Abbreviations: CP, corporal punishment; FE, Fisher's exact test.
*$p < 0.05$.**$p < 0.001$.

TABLE 5 Descriptive statistics of cultural acceptance, attitudes and personal experiences with CP.

Variable	N	Range	M (SD)
Cultural acceptance	400	0–6	1.23 (1.16)
Attitudes towards the use of CP	400	0–5	0.75 (0.87)
Personal experience with CP	392	0–30	4.39 (5.22)

Abbreviation: CP, corporal punishment.

TABLE 6 Multinominal logistic regression with group membership as dependent variable.

	Group 1 ($n = 143$): CP and at least one PDT		Group 3 ($n = 95$): no CP and at least one PDT	
Variable	Exp(B)	95% CI	Exp(B)	95% CI
Cultural acceptance	1.81**	[1.29, 2.53]	1.24	[0.88, 1.75]
Attitudes towards the use of CP	5.16**	[3.18, 8.36]	3.58**	[2.19, 5.85]
Personal experience with CP	1.01	[0.95, 1.07]	1.01	[0.95, 1.07]
Gender—child	2.03*	[1.13, 3.63]	1.33	[0.75, 2.36]
Age—child	0.91	[0.82, 1.01]	0.97	[0.87, 1.07]
Social desirability	0.95	[0.89, 1.01]	0.93*	[0.87, 0.99]

Note: Reference group = no CP and no use of specific PDT (group 4, $n = 133$). Gender—child: 1 = girl, 2 = boy.
Abbreviations: CI, confidential interval; CP, corporal punishment; PDT, physical disciplinary technique.
*$p < 0.05$.**$p < 0.001$.

Four groups of mothers were identified: (1) CP and at least one PDT (36.7%); (2) CP but no PDT (1.7%); (3) no CP but at least one PDT (26%); and (4) no CP and no PDT (35.5%). About 2% of participants reported to use CP but used any PDT. This can be explained by the fact that the PDTs they use were not included in our list of PDT, that the need to use a specific PDT of the list did not

occur yet or that other factors/behaviours make that these mothers identify themselves as parents using CP. Another explanation might be that mothers were more inclined to give social desirable answers when questions became more specific; 26% of mothers (group 3) considered the listed PDT not as CP. This is worrisome. It could mean that 26% of mothers lack knowledge regarding PDT and CP and the harm as a consequence of the use of PDT and CP. Indeed, the worldwide continued use of PDT suggests that parents are not believing that PDTs (and CP) are ineffective and potentially harmful to their children's health and development (Anderson & Goodnight, 2022; Durrant, 2020; Heilmann et al., 2021; Hornor et al., 2020). Nevertheless, other explanations exist for belonging to group 3. It might be that these mothers use only mild PDT or use PDT only with such a low frequency that they do not consider themselves as endorsing CP. Also in other research, the hypothesis has been formulated that a threshold has to be met before the use of PDT is considered CP and potentially problematic (Burns et al., 2021). Another explanation can be that these mothers used PDT out of anger and impulsively while losing behavioural control. Indeed, if emotional arousal is too strong, parents are less able to control their behaviour, and they use more power assertation, such as CP, as a response (Gershoff, 2002). Having used PDT in such situations might prevent that mothers identify themselves as mothers using CP. Nevertheless, these mothers should be targeted by educational programmes to provide them with knowledge on PDT and CP and on the possible harm as a result of engaging with PDT and CP.

The influence of cultural acceptance, personal experiences and attitudes regarding the use of CP and PDT was examined. Positive attitudes were a strong predictor for the use of CP and PDT. Mothers with more positive attitudes towards the use of CP had a greater likelihood to belong to groups 1 and 3. These results indicate that favouring the use of specific PDT heightens the likelihood of using CP and PDT (Ateah & Durrant, 2005; Fréchette & Romano, 2017; Vittrup et al., 2006). The acceptance of the environment of the use of PDT predicted group membership of group 1. In line with earlier research (Taylor et al., 2011), the higher the cultural acceptance of CP, the higher the use of CP and specific PDT. Mothers model and imitate disciplinary behaviour approved by friends and family members (Bandura, 1986). Cultural acceptance was not associated with group membership of group 3 (no CP and use of PDT). This finding suggests that the conceptualization of CP and which specific PDT is considered CP is not determined by the close relatives. Indeed, both groups reported not to use CP, but they differed regarding the use of specific PDT. As both groups do not differ regarding cultural acceptance, acceptance is not associated with the use of PDT and consequently the conceptualization of specific PDT as CP. This finding might be explained by the fact that next to cultural acceptance (injunctive approval by friends and family or what mothers ought to do), also injunctive approval by professionals and perceived descriptive norms (what most mothers do) can be distinguished (Taylor et al., 2011). The possibility exists that injunctive approval by professionals or perceived descriptive norms would have been associated with membership of group 3 and thus explaining the use of PDT and at the same time not considering oneself as using CP. Indeed, perceived injunctive norms from a professional and perceived descriptive norms are strong predictors of positive attitudes towards PDT use (Taylor et al., 2011).

Personal experience with CP was not associated with group membership, indicating that the personal experiences are not promoting the use of CP and/or PDT. This finding might be the result of a bottom-effect. The low scores of the personal experience variable may vary not enough, resulting in the absence of a significant association. At the same time, this finding indicates, fortunately, that very little mothers had personal experiences with the four listed PDT. Higher social desirability scores were found in members of group 4. This finding might indicate a possible underestimation of the use of CP and PDT. Consequently, it can be assumed that the prevalence of the use of CP and PDT is higher (Fréchette & Romano, 2017).

In the multinominal logistic regression analyses was statistically controlled for age and gender of the child. Mothers of boys were more likely to belong to group 1. This finding is in line with research that found that parents are more inclined to use CP and PDT with boys than with girls (Gershoff, 2002; Vittrup et al., 2006), because boys are more likely to show behaviour eliciting CP (e.g., aggressive behaviour) and because parents have gender-related beliefs about their children (e.g., that boys should be 'tough') (Ruble & Martin, 1998).

Socio-demographic characteristics such as age of the mother, household composition, number of members in the family, educational level of the mother and their partner, professional status of the mother, immigration background and ethnic origin were not associated with group membership. This finding is somewhat surprising as in other research (e.g., Anderson & Goodnight, 2022; Fréchette & Romano, 2015), these variables were associated with the use of CP and PDT. Ceiling and bottom-effects (for example, 96% of mothers were of West-European origin) and the lack of statistical power might explain these non-findings.

4.1 | Implications

The results stress the importance of broadly raising awareness on the fact that all kinds of PDTs including 'hitting on the hand, arm or leg' or 'hitting with the bare hand on the bottom' are CP and that also mild PDTs represent a developmental risk and are a violation of the child's dignity and security. Furthermore, positive attitudes towards the use of PDT were a predictor of their use. Indeed, many parents believe that CP is a necessary component of disciplining and that without CP, children will grow up to out-of-control, disrespectful and spoiled adults (Anderson & Goodnight, 2022). Moreover, most forms of CP and mild PDTs are socially normative and culturally accepted (Durrant et al., 2020; Hornor et al., 2020). In order to lower the use of CP, these attitudes and beliefs need to be altered. This can be realized by equipping parents with the necessary tools to engage in positive parenting and positive non-aggressive disciplinary practices (Ma et al., 2022; Seay et al., 2014). Positive parenting can be conceptualized as 'the continual relationship of parents and a child or

children that includes caring, teaching, leading, communicating, and providing for the needs of a child consistently and unconditionally' (Seay et al., 2014, p. 207). The core skills of the positive parenting model are (a) providing a safe and engaging environment, (b) realizing a positive learning environment including being a model through demonstrating appropriate behaviour, (c) using assertive discipline, (d) having realistic expectations and understanding the child and (e) parental self-care and self-knowledge (Invest in Kids, 2007; Sanders, 2012). Assertive or positive non-aggressive discipline is based on four principles: developmentally appropriate behavioural expectations, clear ground rules for specific situations, understandable communication about rules and consistent reinforcement of rules (Hornor et al., 2020). Promotion of positive parenting and non-aggressive discipline on the one hand and discouraging CP on the other hand can be done with universal prevention programmes such as Positive Discipline in Everyday Parenting (PDEP). PDEP is a child-based intervention that aims at changing patterns of parent–child relations from coercive to collaborative (Durrant, 2016, 2020). Another promising initiative is the installation of 'No Hit Zones' (NHZs). NHZs are environments where the use of any CP by anyone is forbidden. They are designed as a bystander intervention for the prevention of CP and child abuse, and people are encouraged to intervene when they notice the use of CP (Frazier et al., 2014). Research suggests that NHZs result into self-reported changes in attitudes regarding the use of CP by caregivers (Bertero et al., 2020). Finally, an effective way to change attitudes and promote (positive parenting) practices and behaviours in an entire community or region is through public education programmes. Such campaigns can involve announcements on radio, TV and the internet; written content on flyers and posters; or direct mailings. As the messages in such campaigns must be brief, it is challenging to both discourage CP and encourage positive parenting through such approaches (Gershoff et al., 2017). Nevertheless, research showed that even providing brief summaries of research information might be effective in reducing the use of CP (Holden et al., 2014).

Although universal programmes might be effective, it should be recognized that even knowledgeable, skilled parents might use CP out of anger in the heat of the moment, rather than as part of a planned strategy (Ateah & Durrant, 2005). Consequently, interventions to train parents to stop, control their emotions and use alternative non-violent discipline techniques might be needed (Lansford et al., 2020). Next, policies reducing the risk factors for violence such as alcohol abuse might also be promising in decreasing the use of CP (Lansford et al., 2020).

4.2 | Limitations and suggestions for further research

This research has some limitations. Only mothers were included, which makes it impossible to draw conclusions for fathers. However, research found that compared with fathers, mothers use more CP (Grogan-Kaylor & Otis, 2007). In addition, we found that our sample of mothers is not representative for the population of Flemish mothers, at least regarding number of household members (smaller) and immigration status (less migrants). As bigger households and immigration status is positively associated with the use of CP (Fréchette & Romano, 2015), the number of Flemish mothers using CP is probably even higher than reported in this study. The mean age of the children in our sample was lower than the mean age of the population of Flemish children 2–11 years. This was probably the result of the instruction to complete the study for the youngest child. Moreover, we know that the likelihood of too many missing data and, consequently, being excluded from the study was higher for mothers with a migrant background and religious mothers. The cross-sectional research design precludes to determine causal relationships. Furthermore, responses were obtained exclusively from self-report, which might have resulted in underreporting or social desirable answers. However, the latter was minimized by guarantying the anonymity of the participants, by dichotomizing the responses and by controlling for social desirability. The validity and reliability of the cultural acceptance of and personal experiences with CP scales can be questioned as shown by rather low Omega's. Finally, only a limited set of independent variables were researched, resulting in the exclusion of some potentially relevant variables such as time spent with the children.

5 | CONCLUSION

More than 38% of Flemish mothers used CP to discipline their child. They mostly used mild disciplinary techniques. Most mothers identified the specific PDT as CP, but they had difficulties in identifying both mild and extreme PDT as CP. A lack of knowledge regarding CP can be a reason for these doubts. Positive attitudes were a strong predictor for the use of CP and PDT. Bearing in mind the negative consequences of CP and PDT, it is important to change attitudes regarding the use of CP and PDT in order to lower the use of it. Sensibilization with a focus on the harmful effects of (mild) CP might be effective.

CONFLICT OF INTEREST STATEMENT

The authors declare that there is no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

ETHICS STATEMENT

The Medical Ethical Committee of the Brussels University Hospital of the Vrije Universiteit Brussel granted ethical approval for the study (B.U.N. 1432020000327).

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