ORIGINAL ARTICLES

Aggression and its Correlates in the Bahamian Community with a Focus on Corporal Punishment

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Abstract

Corporal punishment is commonly used in The Bahamas to influence the behaviour of children. Evidence suggests, however, that this method of punishment risks children becoming aggressive adults. This study investigated associations between childhood experiences of corporal punishment, other events in the life of participants and adult aggression to identify a link, if any, between adult aggression and adults using corporal punishment on their own children. An internetbased survey of 5,351 adults (aged 18 or over) resident in The Bahamas was used to investigate associations between corporal punishment, other events in the life of participants and aggression. The study found that participants who experienced more childhood events of corporal punishment were more aggressive than others (p < .001). Further, adults who used, or intended to use, corporal punishment on their children, had higher aggression scores and had experienced more childhood corporal punishment events than those adults who did not, or did not intend to use corporal punishment on their children (p < .001). Negative childhood experiences of violence, lifetime experiences of sexual abuse and workplace bullying were all associated with elevated aggression scores (p < .001). These results suggest that if parents in The Bahamas ceased to inflict corporal punishment on their children, society might benefit from lower levels of aggression in the adult population.

Introduction

Aggression, and its management, has been a recurring topic in the Bahamian media, particularly in relation to violence and homicides. This has been evident in teenage populations regarding violence in both boys ("Anger Management," 2023) and girls (Smith, 2022) as well as in the adult population (Brown, 2022). The need to assist college students with anger-related issues is recognised by the services offered at University of The Bahamas (University of The Bahamas, 2023) and the general public through the Bahamas Ministry of Social Services & Urban Development (2011). This concern arises due to the link between anger and violence (Kimonis et al., 2011) and crime (Stiebs Hollenhorst, 1998).

Over many years, there have been regional as well as national efforts to raise awareness of

conflict management. The draft National Development Plan ofThe Bahamas (Government of The Bahamas, 2016) requires that anger issues be addressed in the country's 20-year development plan. Despite such efforts, uncontrolled anger continues to have negative consequences on society. In the Bahamian community, Allen et al. (2017) have demonstrated the destructive role that anger and violence may have which can result in self-harm or harm to others.

The criminal justice system in The Bahamas is also aware of the importance of controlling aggression; accordingly, anger management classes have been mandated by the courts for men who hit their partners in domestic disputes (Brown, 2022). The courts also require parents who physically abuse their children to attend anger management classes ("Mom Admits," 2023). This concern of the courts about the negative outcomes of the harsh treatment of children is supported by Fielding et al. (2015) which found that Bahamian college students reported exhibiting more anger outbursts than their counterparts, and this was American associated with greater use of corporal punishment by Bahamian parents than American parents.

Despite The Bahamas being a signatory to the United Nations Convention of the Rights of the Child (1989), which in Article 19 requires that "parties shall take all appropriate legislative, administrative, social and educational measures to protect the child from all forms of physical or mental violence," the use of corporal punishment remains common. The Bahamas' submission to the United Nations in 2004 stated, "some Bahamian parents hold the view that they have the right as parents to control their children in any manner they deem fit and proper. Corporal punishment is a disciplinary measure that many parents utilize" (United 2004). Although Nations. corporal

punishment is regulated in public schools in The Bahamas, cases of abuse of children by teachers continue to be reported in the media (Fielding & Ballance, 2020). Despite the use of corporal punishment in schools, there is little evidence from The Bahamas (Fielding & Ballance, 2020) or elsewhere that it enhances educational outcomes (Maiti, 2021), which makes its use in schools questionable. Corporal punishment is widely used in The Bahamas (Carroll et al., 2016) and throughout the West Indies (Landon, et al., 2017); however, in The Bahamas, relatively few parents/guardians who inflict corporal punishment on their children know much about the potential long-term effects it can have on their children (Fielding & Ballance, 2021). Consequently, parents can be unaware of the harm they risk causing their children. The Bahamas has a large community of Christians whose child-rearing practices are informed literal by interpretations of the Bible and this results in them being reluctant to forgo using corporal punishment on their children (Fielding & Ballance, 2022). Consequently, as Otterbein and Otterbein (1973) showed, there are longheld beliefs which support the use of corporal punishment which are still current (Munnings, 2022).

Brennen et al. (2010) provided an estimate of child abuse due to corporal punishment (about 4%) and they found that "abuse" in the Bahamian setting would be considered grievous bodily harm elsewhere. Later studies, have confirmed that children in The Bahamas are hit with a range of objects, including anything available (Fielding & Ballance, 2021) and so putting children at increased risk of abuse (Zolotor et al., 2008), a finding replicated in The Bahamas by Fielding and Ballance (2021). Negative parenting practices in The Bahamas (Fielding & Ballance, 2021) reflect those within the wider-Caribbean region (Lie-A-Ling et al., 2018). Such practices are linked to child

behavioural problems (Westbrook et al., 2013) which can have repercussions in adulthood. Further, negative social impacts can also result in anger and violence by those affected (Scarpa & Raine, 1997). The literature on the negative outcomes associated with corporal punishment has resulted in the American Academy of Pediatrics recommending discontinuing the use of corporal punishment on children (Sege et al., 2018).

Aggression appears to have been a concern primarily focused on the male population. This is illustrated by the emphasis on programmes on anger management for males (Bahamas Department of Gender and Family Affairs, 2019). and this concern is also iustified consequences bv the that interpersonal violence between partners can have on children in the home (Lee et al., 2022). This emphasis may be grounded in the use of physical violence by males in intimate relationships; however, it ignores the childrearing role of women where women are the primary disciplinarians of the children in the Bahamian home (Fielding et al., 2015). Therefore, in this role, the anger management of the mother cannot be deemed less important as it can influence the punishment inflicted (Fielding & Ballance, 2021) and can risk having negative consequences for the child. Further, Brennen et al. (2010) found that both fathers and mothers were equally associated with abusing their children through corporal punishment, so how either parent manages their anger is important.

Violence towards women is of particular concern given their important child-rearing role, especially in homes where there is domestic violence, and the male partner subjects the mother to sexual abuse. Both married and unmarried women are subject to intimate partner violence which can have negative outcomes for not only the mother but also the child (Damant et al., 2010).

Fielding et al. (2015) found that women in The Bahamas are responsible for more acts of corporal punishment towards their children than men. Therefore, actions which increase aggression in women also risk having negative consequences for their children. However, both men and women, married and single. are subject to violence and psychological abuse in intimate relationships (Fielding & Ballance, 2023a and 2023b), so violence between intimate partners can have detrimental consequences for the children in the home (Fielding et al., 2016). While their observations are not unique to The Bahamas, they show that violence affects not only the victims/perpetrators in such scenarios, but that actions which elevate aggression are potentially a threat to those beyond whom it is initially directed, and so are of concern to all members of society.

Methodology

In the Fall of 2023, a survey was undertaken to investigate the associations, if any, between:

- 1. Participants' level of aggression as an adult and participants' experiences of corporal punishment as a child,
- 2. Experiences of domestic violence and aggression,
- 3. Experiences of unwanted sexual intercourse and aggression,
- 4. Participants' level of aggression as an adult and anticipated or actual use of corporal punishment on their children.

Aggression was measured by the commonly used Aggression Questionnaire of Buss and Perry (1992). This questionnaire includes four subscales: *physical violence, anger, hostility,* and *verbal aggression*. Buss and Perry (1992) describe the sub-traits of their scale as follows:

Physical and verbal aggression, which involve hurting or harming others, represent the instrumental or motor component of behavior. Anger, which involves physiological arousal and preparation for aggression, represents the emotional or affective component of behavior. Hostility, which consists of feelings of ill will and injustice, represents the cognitive component of behavior (p. 457).

Adult, lifetime experiences of being a victim of domestic violence was measured by the HITS scale (Sherin et al., 1998). Experience of corporal punishment (corporal punishment score) was assessed by four questions on the type of punishment (by hand or with an object) and number of occurrences, before and after the respondent was a teenager (Fielding et al., 2015). The target population was adults (those aged 18 or over) who ordinarily resided in The Bahamas. The study was approved by the Institutional Review Board (IRB) of University of The Bahamas.

An internet-based survey was used. Students in a 400-level research class at University of The Bahamas seeded a snowball sample from the wider Bahamian community using their social media contacts, which resulted in a sample of 5,744 persons entering the survey. A total of 27 people declined to participate. After cleaning the data, 5,351 responses were from the target population, adults aged 18 and over who were resident in The Bahamas. Respondents could decline to answer any question, so this figure represents the maximum sample size.

Results

Cronbach's α for the corporal punishment score was 0.85 (4 items), overall aggression score, .91 (29 items) and the HITS scale, .85 (4 items). Consequently, all scales show acceptable levels of reliability. Consistent with other internet-based studies in The Bahamas, the sample was dominated by females, so the results will be typically presented by sex. When this is done, the 46 respondents who indicated that their sex was "other" (not male or female) were omitted. We recognise that sex can be viewed as being non-binary and gender fluid. However, in keeping with the traditional Bahamian societal perception, sex is typically viewed as being biologically based and behaviours are associated with this. Consequently, this paper does not attempt to classify respondents other than by the sex with which they identified. This presentation is also in keeping with the generally accepted fact that men report being angrier than women (Buss & Perry, 1992).

Overall

The overall mean for the aggression score was 72.1 (SE = .32) and the overall mean values for the subscales are given in Table 1 for reference.

Table 1	Т	а	b	le	1
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Overall Means Sscores	of the Aggression Acore al	nd its Dimensions

Measure	М	SE	Minimum	Maximum	N =
Overall Aggression	72.1	0.32	31	141	3,879
Physical Aggression	21.3	0.1	9	45	4,203
Hostility	20	0.11	8	40	4,229
Anger	16.6	0.09	7	35	4,226
Verbal Aggression	13.9	0.06	5	25	4,341

Overall, males had significantly higher aggression scores than females (males = 74.3, SE = .64, females = 71.3, SE = .37, $t_{3,836} = 4.08$, p < .001) across all dimensions of the aggression score, and younger participants had higher scores across all dimensions of the aggression score (ANOVA, males, $F_{5, 977} =$

Table 2

376, p < .001, females, $F_{5, 2853} = 342$, *p* < .001, Table 2). As a frame of reference, Buss and Perry (1992) provide aggression scores for undergraduate populations; 77.8 (*SE* = .67) for males and 68.2 (*SE* = .69) for females which would align best with the 18-29 age group in this study.

		Sex of respondent			
Age group	Male	SE	Female	SE	
18-19	77.4	2.42	78.2	1.36	
20-29	77.5	.93	77	.57	
30-39	76.7	1.26	71.6	.73	
40-49	67.6	1.74	66.5	.95	
50-59	63.9	1.84	59.6	.96	
60 or over	71.2	2.31	61.3	1.56	
Overall	72.4	.75	69	.44	

Mean Aggression Scores by Sex and Age Group of Respondent

Aggression and Childhood Corporal Punishment

Participants who reported experiencing more childhood events of corporal punishment had higher aggression scores than those who reported experiencing fewer childhood events of corporal punishment (see Table 3). This pattern was similar irrespective of whether the person had been hit with the hand or with an object. Overall, more childhood events of corporal punishment were associated with adult participants feeling that they had been abused as a result of corporal punishment. However, even though males received more corporal punishment than females, as adults, the males were less likely than females to consider that level of corporal punishment as abuse.

Table 3

Adult Aggression Scores by Experiences of Childhood Corporal Punishment

	Before a teenager		When a	teenager
Number of times	Hit with a hand	Hit with an object	Hit with a hand	Hit with an object
Never	65.2	66.0	68.8	69.5
Once	66.3	68.3	69.4	70.7
Twice	69.2	69.9	71.9	75.6
3-5 Times	70.6	71.7	76.1	74.4
6-10 Times	73.4	72.9	76.3	76.6
11-20 Times	75.5	75.3	79.8	77.8
More than 20 Times	76.8	77.6	76.9	77.5
Overall	71	72.1	74.2	74.6
p	< .001	< .001	< .001	< .001

Overall, 5.9%, 95% CI [5.3%, 6.6%], of participants strongly agreed that they had been abused as a result of the corporal punishment they received. This figure is similar to the 4.1%, 95% CI [2.5%, 6.3%], for abuse reported by Brennen et al. in 2010.

A corporal punishment score (CP score) was devised by converting the number of times a respondent was hit as listed in Table 3 to a Likert scale from one (never) to seven (more than 20 times), which resulted in a scale ranging from 4 to 28. There was a strong association between the use of corporal punishment score (CP score) and the respondent considering their punishment as abuse (ANOVA, $F_{6, 5065} = 199.7$, p < .001) and their aggression score (ANOVA, $F_{6, 3862} = 50$, p < .001). This suggests that respondents' perception of abuse reflects their actual experiences. Table 4 also highlights that those respondents who felt that they had been abused had higher CP scores than those who disagreed or could neither agree nor disagree. Likewise, elevated aggression scores were associated with perceived abuse and CP score was correlated with aggression score (r = .244).

Table 4

Association between Childhood Experiences of Corporal Punishment and Age with Respondents' Perception of Being Abused by their Childhood Corporal Punishment

	CP score		Aggres	sion Score
Punishment was abuse	М	SE	Μ	SE
Strongly agree	19.6	0.43	79.8	1.26
Agree	18.5	0.44	81.3	1.39
Somewhat agree	17.7	0.24	78.7	0.85
Neither agree nor disagree	15.3	0.27	75.6	0.9
Somewhat disagree	15.7	0.29	75.3	1.13
Disagree	12.6	0.16	70.6	0.63
Strongly disagree	10.9	0.14	66.1	0.51
Overall	15.7	0.11	75.3	0.38

The CP score was significantly correlated with all dimensions of the aggression score at p < .001; the highest correlations were with the overall aggression score and with the physical aggression subscale. The anger

dimension had the highest correlation with overall aggression score (r = .685); this suggests that higher aggression scores also indicate higher anger scores (Table 5).

Table 5

	Aggression score	Physical aggression	Verbal aggression	Anger	Hostility	CP score
Aggression score						
Physical aggression	.675					
Verbal aggression	.575	.404				
Anger	.685	.491	.439			
Hostility	.678	.43	.392	.458		
CP score	.168	.163	.11	.127	.139	

Note: All correlations were significant at the p < 0.001, *N* varies between 3,858 and 5,093

Associations between negative events in the life of respondents and aggression

ANCOVA was used to examine which events in the life of the participants, if any, were associated with elevated adult aggression scores. For example, the death of a loved one can have negative influences such as depression and anger (Zisook & Shear, 2009). The covariates used were age, sex, and all the other events in the table other than the one being examined. Consequently, the mean values in Table 6 indicate if a perceived negative experience of the event investigated was associated with increased/decreased aggression when all the other events had been taken into account. Table 6 allows us to identify events which dominate associations with increased aggression taking into account other events which may have been associated with influencing anger scores. The treatment of respondents by their parents/guardians was more influential on aggression scores than the treatment by schoolteachers. Other school related events had little effect on adult aggression once other life event experiences were taken into account. Adult experiences, such as adult sexual abuse and workplace bullying, were associated with elevated aggression scores.

Table 6

Experiences of Negative Outcomes and Mean Aggression Scores

	Event had a negati	ve experience o	on respondent
Event:	Yes	No/NA	p
Being physically punished by parents/guardians at hom	e 75.6	70.8	< .001
Being shouted at by parents/guardian at home	74.6	70.1	< .001
Being physically punished by schoolteachers	70.6	72.2	.093
Being shouted at by schoolteachers	72.6	71.8	.358
Being a victim of bullying at school	72.3	71.8	.482
Being a gang member at school	73.8	71.9	.485
Being a victim of bullying in the workplace	74.6	71.3	< .001
Being a victim of property crime	70.7	72.3	.041
Being a victim of a physical attack	75	71	< .001
Being a victim of sexual abuse/unwanted sexual intercourse	74.5	71	< .001
A death of a friend/family member	72.9	70.4	< .001
Being a gang member after school	71.7	71.9	.927
Being detained at Fox Hill Prison or the Detention Centr	re 71.4	72	.743

Note: Means estimated from ANCOVA. Only comparisons where p < .001 should be regarded as statistically at p < .05, to avoid issues of multiple comparisons, Bonferroni correction.

Association Between Aggression and Violence in the Home

Both male and female respondents had elevated aggression scores when they encountered negative experiences as a result of corporal punishment from their parents ($p \le .017$ from ANCOVA). In the case of females, those who had experienced negative events from both sexual abuse and corporal punishment had even higher aggression scores (interaction, p = .008), but this was not found for males (p = .41, Table 7). This suggests that elevated higher aggression scores are associated with sexual abuse of females, but not males.

Table 7

	Physically punished by parents						
Sex	Being a victim of sexual abuse	No/NA	Yes	р			
Male	No/Not applicable to me	73.9	77.3	11			
	Yes	70.8	77.3	.41			
Famala	No/Not applicable to me	68.3	74.9	000			
Female	Yes	74.9	76.3	.008			

Mean Aggression Score of Males & Females by Negative Experiences of CP and SA.

Note: Means from ANCOVA with age and the events in Table 6 as covariates, except for the variables in this table.

Aggression increased with scores respondents' experiences of domestic violence, as measured by the HITS score. Participants who were victims of domestic violence and unwanted sexual intercourse had significantly higher anger scores than those who were not victims, as shown in

Table 8. Given the correlation between the overall anger score and the physical aggression, these elevated figures also indicate elevated physical aggression. When considering the aggression scores in Tables 8, it is useful to recall that the overall aggression score of all respondents was 71.2 (Table 1).

Table 8

Association between Aggression Scores and Interpersonal Violence

Interpersonal violence event	М	SEM	р
Suffers from domestic violence			-
Yes	81.9	0.75	004
No	70.2	0.35	< .001
Had unwanted sexual intercourse			
Yes	75.7	0.85	
Not sure, maybe yes	74.6	0.87	< .001
No	71.3	0.38	
Unwanted sexual intercourse made respondent get.			
Angry more easily than before	78	1.05	
Angry about the same as before	73.9	0.84	. 001
Angry less easily than before	74.7	1.81	<.001
Not a victim of unwanted sexual intercourse	70.9	.339	

Note: Estimated means from ANCOVA using the covariates in Table 6 and age group and sex, except for sexual abuse. Domestic violence determined from the HITS score.

Overall, respondents who had experienced more corporal punishment during childhood, were those who would use/had used an object to hit their children, as shown in Table 9.

Respondents who would use/had used both their hand and an object to punish children had the highest CP score.

Table 9

Moon CD or	oros by Mat	had of Duni	ching Childron
wean CP sc	cores by ivieu	nou oi Puni	shing Children

Respondents use (or would use) these methods to punish their child	М	SE
Use an object only	14.1	.67
Use my hand only	14	.21
Use an object and my hand	16.6	.23
Use some other method which does not involve hitting the child	13	.14

Vote: $F_{3,3582} = 36.5, p > .001$). ANCOVA using the covariates in Table 6 and age group and sex.

Respondents who had or intended to have children indicated that those who used/would use both an object and their hand to punish their children had the higher anger scores. This is consistent with the correlation between the CP score and the physical aggression dimension and overall anger score (Table 5). Use of methods other than the hand or an object were associated with lower anger scores. Use of the hand to discipline children was associated with lower aggression scores (Table 10). The highest mean aggression score (75.4) was associated with using both the hand and an object to hit the child. The intention to use, or use of corporal punishment on participants' children, demonstrated the link between aggression and hitting children with the hand, and that those who intended to use or used the hand and an object had the highest aggression scores. This association persisted when an ANCOVA was used to adjust for sex, age and the events in Table 6.

Table 10

Aggression Scores by Use of or Intention to Administer Corporal Punishment by Hand or with an Object on Respondents' Children

	Use d	of hand			
Use an object	No	Yes	Overall	р	
No	70.2	72.2	71.2	.73	
Yes	67.9	75.4	71.8		
Overall	69.1	73.8			
n	<	001			

Note: Interaction $F_{1, 3, 109} = 5.51$, p = .019. ANCOVA using the covariates in Table 6 and age group and sex.

Comparison of the pattern of results of the CP score (Table 11) and aggression in relation to the choice of method of corporal punishment (Table 10) reflects the association between adult aggression, childhood experience of corporal punishment and the respondents' choice to use corporal punishment on their children.

Table 11

Mean CP Scores of Respondents Who Use or Intended to Administer Corporal Punishment by Hand or With an Object on their Children

Use of hand						
Use an object	No	Yes	Overall	р		
No	13	13.8	13.4	. 001		
Yes	14	16.6	15.3	<.001		
Overall	13.5	15.2				
р	<	.001				

Note: Interaction $F_{1,3546} = 4.7$, p = .03. ANOVA using the covariates in Table 6 and age group and sex.

Of 2,776 females who, when an adult, had intimate partners 17% (95% CI [15.6, 18.4]) were sure that they experienced sexual intercourse against their will; this compared to 7.7% (96% CI [6.1%, 9.5%]) of 964 males

(Table 12). These figures are similar to the 17.6% of females and 8.1% of males who reported experiencing unwanted sexual intercourse in a Bahamas Ministry of Health STEPS survey of 2019.

Table 12

Percentage of Respondents, by Sex, Reporting Having had Sexual Intercourse Against their Will When an Adult

	Sex of respondent			
Participant had sexual intercourse against their will	Male	Female	Overall	
Yes	7.7%	17%	14.6%	
Not sure, maybe yes	11.8%	14%	13.4%	
No	80.5%	69.1%	72%	
Ν	964	2,776	3,740	

Note: χ2=57.9, df= 2, N = 3,740, *p* < .001

Females who had unwanted sexual intercourse were more likely than other

females to use an object to discipline their children (Table 13).

Table 13

Percentage of Female Respondents Reporting Having had Sexual Intercourse Against their Will When an Adult & Use of or Intention to Administer CP on Their Children

Female respondents only Had unwanted sexual intercourse					
Use (or would use) to punish my children:	Yes	Not sure, maybe yes	No	Overall	
An object and my hand	24.3%	22.1%	19.3%	20.5%	
An object only	4.3%	1.5%	1.3%	1.9%	
My hand only	20.7%	24.8%	27.2%	25.8%	
Some other method which does not involve hitting	50.6%	51.5%	52.2%	51.8%	
Ν	415	330	1,714	2,459	
Nata :: 2 = 26 9 NL 2 450 m : 004					

Note: χ 2 = 26.8, *N* = 2,459, *p* < .001

This increased aggression was associated with the use of potentially abusive forms of corporal punishment (using an object and the hand) on their children (Table 14). Aggression scores were also elevated when respondents reported that their sexual abuse had made them angrier than before (ANCOVA $F_{3,3234} = 3.4$, p = .017).

Table 14

Aggression Scores

Respondent becomes angry							
Intention to use or used to punish children	More easily than before	About the same as before	Less easily than before	Not abused	Overall	p	
Use an object and my hand	87.2	79.4	77.9	73.2	79.4		
Use some other method which does not involve hitting	80.7	73.3	77.8	68.9	75.2	.017	
Use my hand only	81.3	73.3	71	70.5	74		
Use an object only	73.1	69.9	68.4	70.5	70.5		
Overall	80.6	74	73.8	70.8			
< .001							

Note: Covariates, age group and sex. Scores associated with changes with respondents' anger management having had sexual intercourse against their will, or not, when an adult, and their use or intention to use corporal punishment on their children.

Discussion

The methodology of this study, a selfselected sample arising from an internetbased survey, can lead to bias in the results. Therefore, caution should be exercised when extrapolating the results to the wider population in The Bahamas. However, the relatively large sample and points of triangulation with other studies suggest that the bias may not be a cause for concern. Further, a survey is limited to only identifying associations between variables, so caution should be exercised in referring any causation between them, even if they seem heuristic. We should note that the influences noted in this study are just some of the influences on aggression and anger (Rui & Ling-Xiang, 2021).

The mean aggression score for males was close to that reported by Buss and Perry (1992), who sampled college students in the United States. However, the aggression score for females was higher than that reported by Buss and Perry, so females in The Bahamas report more aggression that in the Buss and Perry study. This may be a cause for concern, given the role that females have in disciplining children (Fielding et al., 2015). Consequently, any event which may further increase their aggression needs to be minimised.

The use of abusive corporal punishment and its link with adult aggression noted in this study is consistent with the findings of Afifi et al. (2017) and Wiggers and Paas (2022) which show that harsh discipline can have harmful consequences on the child. The link between experiences of corporal punishment and abuse is important in the Bahamian context where such abuse would be considered as grievous bodily harm elsewhere (Brennen et al., 2010).

Mental health issues, such as anger, may be considered to be of concern as such harm is "hidden", unlike physical harm. This study confirms that elevated adult anger is associated with childhood treatment and transcends other possible negative events in the life of the adult. The linkages between corporal punishment by parents and adult aggression is stronger than similar events that occurred at school. This suggests that use of corporal punishment in schools may have less of a long-term effect on adult aggression than parental punishment. This result may arise from the fact that the use of corporal punishment is controlled in government schools (Fielding & Ballance, 2020), and these schools serve about 70% of the population of school students (UNESCO, 2021), therefore the majority of school children are educated in an environment where corporal punishment is limited. These findings indicate that corporal punishment within the home may have lasting effects on children. This implies that parents, typically mothers, need to refrain from using corporal punishment in order to potentially reduce the aggression in their adult children.

Our data reinforce the link between childhood experiences of corporal punishment and the adult using it on their own children. The role which elevated aggression plays in this cycle is apparent. Aggression can be aggravated by sexual abuse, as evidenced by 37% of women in our study who stated that they got angry more easily than before their abuse. This was also linked with them being more likely to use an object to hit their children, and so elevating the risk of their children being abused. Given the limited protection that married women in The Bahamas have from some extreme forms of sexual abuse (Moxey-Adderley & Walker, 2023), it is clear that children also can become indirect victims of sexual abuse and domestic violence, with consequences which can last into adulthood. Therefore, policies which protect women from such violence might also be expected to protect children from lasting harm.

The use of corporal punishment to control children practised by parents and repeated across the generations in The Bahamas (Fielding, et al., 2015), is an observation not unique to The Bahamas. One reason for this cycle is that attempts to break it have not presented parents with options which they feel will be adequate substitutes (Baker et al., 2021). Attempts to encourage so-called positive discipline (Durrant et al., 2014) need to be supported by up-stream investment. Until parents and prospective parents are informed about the risks of using corporal punishment and have alternative ways of socialising their children, the cycle of violence can be expected to continue and ultimately be manifest in national crime statistics.

Our data support the notion that parenting by mothers who are subject to intimate partner violence is negatively impacted by such violence, a finding which is consistent with Grogan-Kaylor et al. (2020). Females in this study were more likely than males to feel that they have been abused through the punishment inflicted upon them by their parents. Further, their negative experiences with sexual partners, combined with the foregoing, become associated with increased aggression, associated with the use of hitting their children with an object. This elevated situated aggression is in structural inequalities in society where women are less empowered than men (Bethel & Fielding, 2020) and the law does not recognise rape within marriage (Moxey-Adderley & Walker, 2023).

The link between sexual abuse and aggression observed in females was in

contrast with that of males, whose aggression scores were not further elevated through sexual abuse.

Our data again demonstrate the link between corporal punishment and child abuse which is in line with other research studies such as Fréchette et al. (2015). The data further support the link between violence in the home experienced by both male and female children and interpersonal violence in their adulthood (Gover et al., 2008). McCabe et al. (2005) also found that community violence is associated with behavioural problems in young adults, so while recognising the links between behaviours of concern and homecentred violence, we should not forget the communal environment which can also shape behaviours.

Despite parents continuing to use physical violence to punish their children and so risk making them aggressive adults, Bahamian society should consider promoting programmes which mitigate the anger in children ("Angry Children," 2009) and offer alternative means of disciplining children such as those given by Sege et al. (2018). These latter efforts need to encompass schools and faith communities, where possible, in an effort to change parenting styles. In The Bahamas, there is little support for outlawing corporal punishment (Fielding & Ballance, 2021), so non-legislative means may need to be used which can include the education system and health professionals who have respected teaching roles. Further, social media influencers can play important roles in educating the public about health issues (Ramlan et al., 2023) and so promote non-violent socialising of children. Research on the effectiveness of non-violent methods to discipline children seems to be limited to school settings. In some settings, these methods have been found to be positive (Ahmed & Rashid, 2023), and they suggest that training of teachers is key to them implementing alternative means of discipline and so, presumably, changing an ingrained mindset focused on using corporal punishment which they may have learnt in their domestic environments. Conversely, in other studies where alternative disciplinary methods have been examined, the research suggests that teachers prefer the outcomes in discipline resulting from corporal punishment (see, for example, Ghati & Mbirithi, 2022). What may be of importance is that Ghati and Mbirithi noted that parents were not in favour of alternative methods of discipline in schools and this becomes a barrier to their use, so parental education will be key to reducing the use of corporal punishment. However, such studies only focus on short-term behavioural changes, and not the long-term detrimental effects associated with physical discipline, as noted earlier.

This study did not investigate the quality of the relationship of participants with their parents and friends. The research of Scheff (2003) indicates the importance of these relationships in moderating aggression and violence and so this could be a useful avenue for further research as another means which might be employed to help control aggression, anger, and their associated violence. In this multi-layered issue, it is clear that many aspects in the life of a child may need to be aligned if we are to successfully make society more peaceful.

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