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Parental misperceptions of in-group norms for child discipline

Gary Ganz¹ | Fergus G. Neville²  | Reshma Kassanjee^{3,4} | Catherine L. Ward¹

¹Department of Psychology, University of Cape Town, Cape Town, South Africa

²School of Management, University of St Andrews, St Andrews, UK

³Department of Statistical Sciences, University of Cape Town, Cape Town, South Africa

⁴Centre for Infectious Disease Epidemiology and Research, University of Cape Town, Cape Town, South Africa

Correspondence

Fergus G. Neville, School of Management, University of St Andrews, St Andrews KY16 9RJ, UK.
Email: fgn@st-andrews.ac.uk

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Abstract

The influence of perceived social norms on behaviour has been studied in a variety of domains. However, little research has examined their application to child discipline. This study explored social norms perceptions and their associations with parental discipline in greater Cape Town, South Africa. A cross-sectional study of 195 mothers (using convenience sampling) from two Early Childhood Development centres examined self-reported violent and non-violent parenting behaviour, and perceived descriptive (usual behaviour in a group) and injunctive (appraisal of such behaviour) group norms. Parents overestimated the prevalence of violent parenting. Perceived descriptive norms of violent parenting were associated with self-reported violent parenting behaviour; and perceived descriptive norms of non-violent parenting were associated with self-reported non-violent parenting behaviour. Estimation of support for violent and for non-violent parenting differed by centre, as did the relationship between perceived injunctive norms of non-violent parenting and self-reported non-violent parenting behaviour. We also found significant effects of social

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identification, parent educational attainment and parent-reported child misbehaviour. Parents' perceptions of group norms of parental discipline may be mistaken yet influence their own behaviour, providing the potential basis for violence prevention interventions.

KEYWORDS

child discipline, norms perception, parenting, social norms

1 | INTRODUCTION

The influence of perceived social norms on behaviour has been studied in a variety of domains. However, little research has examined their application to child discipline. This study explored social norms perceptions and their associations with parental discipline in greater Cape Town, South Africa. A cross-sectional study of 195 mothers (using convenience sampling) from two Early Childhood Development (ECD) centres examined self-reported violent and non-violent parenting behaviour, and perceived descriptive (usual behaviour in a group) and injunctive (appraisal of such behaviour) group norms. Parents overestimated the prevalence of violent parenting. Perceived descriptive norms of violent parenting were associated with self-reported violent parenting behaviour; and perceived descriptive norms of non-violent parenting were associated with self-reported non-violent parenting behaviour. Estimation of support for violent and for non-violent parenting differed by centre, as did the relationship between perceived injunctive norms of non-violent parenting and self-reported non-violent parenting behaviour. We also found significant effects of social identification, parent educational attainment and parent-reported child misbehaviour. Parents' perceptions of group norms of parental discipline may be mistaken yet influence their own behaviour, providing the potential basis for violence prevention interventions.

Globally, one billion children—or half the world's childhood population—have experienced violence in the past year (Hillis, Mercy, Amobi, & Kress, 2016). Physical and emotional violence against children (VAC) have significant public health and economic implications: they are associated with poor mental, behavioural and physical health (Danese & Tan, 2014; Huang et al., 2015; Kalmakis & Chandler, 2015; Norman et al., 2012; World Health Organization [WHO], 2016) as well as increased risky behaviour and reduced educational achievement and employment outcomes later in life (Dube et al., 2003; Dube, Anda, Felitti, Edwards, & Croft, 2002; Elgar et al., 2018; Kalmakis & Chandler, 2015; Norman et al., 2012; WHO, 2016). This applies, too, to corporal punishment (Gershoff et al., 2018), a form of VAC often carried out by parents, and often viewed as an appropriate response to children's misbehaviour (Merrick, Fortson, & Mercy, 2015). The seriousness of the problem of VAC has formally been recognised in the inclusion of elimination of all forms of VAC in Sustainable Development Target 16.2 (United Nations, n.d.).

Social norms are often proposed as playing a role in promoting VAC (Taylor, Hamvas, Rice, Newman, & DeJong, 2011), including in parenting. For instance, WHO and other global agencies collaborated to produce *INSPIRE: Seven strategies for ending violence against children* (WHO, 2016), which includes both changes in social norms and in parenting as two of the seven strategies. Norms may be defined as the predominant behaviours and attitudes found in social groups; and social norm interventions—correcting group members' misperceptions about group norms—have been shown to be effective in changing behaviours in a range of domains (Tankard & Paluck, 2016). This work is premised on the fact that people are influenced by what others in their relevant social groups think and do because this provides a credible guide to appropriate behaviour (Turner, 1991). However, perceptions of others' beliefs and actions may be mistaken, meaning that anti-social behaviours may be encouraged by

the overestimation of negative behaviours and the underestimation of positive ones. It is therefore important to identify first if such misperceptions exist, and second if normative perceptions are related to actual behaviour.

A norms approach to violence in parenting would thus suggest that (H1) on average, parents will overestimate the average prevalence and support for violent parenting, and underestimate that of non-violent parenting in their reference group (other parents who also have children at the same learning institution), and that (H2) parents' norm perceptions will be associated with their self-reported violent and non-violent parenting behaviours, such that those who perceive greater prevalence and support for violent parenting will be more likely to use violence towards their own children, and those who perceive less prevalence and support for violent parenting will be less likely to do so. If these hypotheses are supported, interventions may then be designed to correct such misperceptions with the aim of producing positive behavioural outcomes, as in other domains (Tankard & Paluck, 2016). Yet, while social norms interventions can be effective and relatively cheap to implement, to the best of our knowledge they have not yet been investigated for their potential in the area of parenting behaviour. This study sought to explore whether social norms for disciplining young children might meet criteria for a social norms intervention.

Broadly speaking, in this article, we recognise two types of parenting as important for understanding parental VAC: violent and non-violent parenting (Straus & Fauchier, 2007). Violent parenting strategies may range from spanking to more serious corporal punishment, such as beating and shouting. Non-violent parenting refers to warm, consistent parenting strategies, such as establishing good parent-child attachment, and discipline strategies such as ignoring annoying behaviour and praising good behaviour. Non-violent parenting skills are important for preventing VAC, as well as for promoting good child outcomes (Knerr, Gardner, & Cluver, 2013; Lachman et al., 2016; Ward, Sanders, Gardner, Mikton, & Dawes, 2016; WHO, 2016).

2 | SOCIAL NORMS AND VAC

Carefully crafted feedback about social norms may be an effective tool to combat VAC (Neville, 2015), through addressing norms perceptions in a targeted and careful way. Norms perception refers to commonly held beliefs of what is normal or desirable within a particular social group. These norms are interdependent such that they involve the reciprocal expectations (real or perceived) of other group members (Mackie, Moneti, Denny, & Shakya, 2012; Tankard & Paluck, 2016). Cialdini, Kallgren, and Reno (1991) delineate two different social norms: descriptive and injunctive norms. Descriptive norms are the prevalence of a behaviour in a social group (e.g., in a survey of South African parents, 57% reported using corporal punishment; Dawes, De Sas Kropiwnicki, Kafaar, & Richter, 2005), while injunctive norms are the appraisal of such behaviours within the social group (e.g., in the same survey, 72% of South African parents reported believing that it is always better to talk to children rather than using corporal punishment; Dawes et al., 2005). Norms are further differentiated on a second axis: actual and perceived. Actual norms refer to accurate empirical information about a particular behaviour or attitude, while perceived norms are the commonly held perceptions of such behaviours or attitudes, thus yielding four types of norms: actual descriptive norms (the actual rates of a behaviour in a population); perceived descriptive norms (what population members perceive the rate of behaviour to be); actual injunctive norms (accurate rates of approval/disapproval of a behaviour); perceived injunctive norms (perceptions of the approval/disapproval of a behaviour). In the current study, we derive 'actual' norms by asking participants about their self-reported behaviours and attitudes. For explanatory purposes, we refer to the mean of these responses as 'actual' descriptive and injunctive norms.

Norm perceptions have been shown to govern behaviour significantly and to be dynamic and malleable (Tankard & Paluck, 2016). Social norms research argues that individual behaviour is shaped by what we believe others in our social groups think and do (Neville, 2015; Perkins, 2003; Reynold, Subašić, & Tindall, 2015; Smith & Louis, 2009). A subset of this research, which aims to shift norms misperception, asserts that our behaviour may often be shaped by false perceptions of how other in-group members think and behave (Berkowitz, 2004; Perkins, 2003). Overestimations of anti-social descriptive and injunctive norms and underestimations of pro-social

descriptive and injunctive norms can increase and decrease such behaviours, respectively (Berkowitz, 2004; Tankard & Paluck, 2016). In theory, interventions which disseminate accurate social norms information can have the effect of correcting such misperceptions and thus effect important behavioural change (Perkins, 2003).

These theoretical assumptions have found support in a number of empirical studies which have applied different permutations of the simple intervention formula to an array of behaviours. For example, small-scale research has found the norms perception approach to be efficacious in reducing gender-based and sexual violence (Gidycz, Orchowski, & Berkowitz, 2011; Katz, Heisterkamp, & Fleming, 2011; Williams & Neville, 2017), and lowering bullying behaviour (Perkins, Craig, & Perkins, 2011). Larger scale studies have found the norms perception approach to be an effective tool in increasing voter turnout (Gerber & Rogers, 2009), and encouraging energy conservation and other pro-environmental behaviours (Allcott, 2009; Goldstein, Cialdini, & Griskevicius, 2008).

An important element in such norms interventions is that they are relatively simple to implement: once the misperceptions have been identified, the intervention consists of disseminating information about norms that will be of greatest benefit—often merely disseminating the correct rates. This is much lower cost and much easier than complex parenting programmes, which are costly to deliver (Mikton, 2012) and where parent engagement is often problematic (Dumas, Nissley-Tsiopinis, & Moreland, 2007). Cost and simplicity make this approach attractive, particularly in low- and middle-income countries, where resources are scarce and VAC tends to occur at higher rates (Ganz, Neville, & Ward, 2017; Hillis et al., 2016).

We therefore sought to examine the applicability of the norms perception approach to parenting interventions. The two primary hypotheses of this study were: (H1) on average, parents will overestimate the average prevalence and support for violent parenting, and underestimate that of non-violent parenting in their reference group (other parents who also have children at the same learning institution); and (H2) parents' norm perceptions will be associated with their self-reported violent and non-violent parenting behaviours, such that those who perceive greater prevalence and support for violent parenting will be more likely to use violence towards their own children, and those who perceive less prevalence and support for violent parenting will be less likely to do so. Since previous research (Neighbors et al., 2010) has suggested that the extent of social identification with the social in-group has an influence on the strength of the association between the perceived norms and behaviour, we set out to test this hypothesis: namely, (H3) the strength of parents' social identification with the in-group will moderate the association between perceived norms and self-reported behaviour.

3 | METHOD

Fieldwork was conducted at two ECD centres in Cape Town, South Africa—one in Khayelitsha (where participants were predominantly isiXhosa-speaking) which had 138 registered students, and the other in Ocean View (where participants were predominantly Afrikaans-speaking) which had 125 registered students. Khayelitsha and Ocean View are peri-urban settlements within greater Cape Town; dwellings—especially in Khayelitsha—are predominantly informal; isiXhosa and Afrikaans are the two main local indigenous languages. Both areas are marked by poverty, gang-related crime, and other forms of interpersonal violence, known to affect child development (Barbarin & Richter, 2001); we chose to work in sites where language and ethnicity differ, as these may also affect child development and parenting practices (Wong & Hughes, 2006). The centres serve preschool children under the age of seven.¹

3.1 | Participants

Convenience sampling was used once access was gained to the ECD centres. All parents who responded to a call for participants and who were the primary caregiver of a child at the ECD centre, were invited to participate. Only female parents ($N = 195$) were included in this analysis, as less than 5% of participants were male.

3.2 | Procedure

Letters informing parents about the study were sent to them via their children. Parents who agreed to take part in the study were invited to meet a research assistant privately, either at the ECD centre or in their home. After obtaining informed consent, research assistants then interviewed the participants in their home language, noting each response and explaining anything that was unclear. Participants received a small incentive (ZAR50 [~US\$3.50] gift voucher to a food store) for taking part in the study. The study was approved by the Research Ethics Committee at the University of Cape Town.

3.3 | Measures

3.3.1 | Demographic information

Participants were asked about their sex and level of education. Low parent educational level has been identified as a risk factor for maltreatment (Merrick et al., 2015).

3.3.2 | Child characteristics

Participants were asked about their child's sex and age. These were included because research suggests that children younger than four are at higher risk for maltreatment (Dawes et al., 2005; Merrick et al., 2015) and that boys are at a higher risk of physical abuse (Merrick et al., 2015).

Next, they were asked to describe two minor misbehaviours of the child's in the past year (which persisted after the child was disciplined) and asked how often the child repeated a minor misbehaviour after being disciplined, on an ordinal scale from 0 (Never) to 9 (Two or more times a day). This item was taken from the Dimensions of Discipline Inventory (Straus & Fauchier, 2007). This item was included because even minor behavioural problems have been identified as a significant risk factor for VAC (Merrick et al., 2015). Only parents reporting misbehaviours repeated at least 1–2 times in the past year (score of 1) were included in this analysis.

3.3.3 | Measure of social identification

Parents' social identification as a parent at the ECD centre was measured using four items (e.g., 'I see myself as an [ECD centre] parent') and responses were scored on a seven-point Likert scale from 1 ('Completely agree') to 7 ('Completely disagree'), such that lower scores denote stronger social identification (Doosje, Ellemers, & Spears, 1995). The mean of the four items was used as the final score. Cronbach's alpha for this scale was .73.

3.3.4 | Social norms survey

The dimensions of discipline inventory (DDI; Straus & Fauchier, 2007) measure a range of violent and non-violent parental disciplinary behaviours. This measure, in its original form, already captures actual descriptive and actual injunctive norms. It was modified slightly to include further measures of 'perceived descriptive norm' and 'perceived injunctive norm'. We retained the response categories of the DDI for the descriptive norms, which range from 0 to 9 (where 0 is never, 4 is monthly, and 9 is two or more times a day), a series of response options specifically designed

for accurate capture of rare as well as frequent behaviours (Straus & Fauchier, 2007). The items from each of the social norms survey sub-scales were averaged prior to the main analyses.

Actual descriptive norms (behaviour)

There was a total of 26 items in the original measure (Straus & Fauchier, 2007), of which 9 can be classified as assessing violent disciplinary behaviour ($\alpha = .68$), and 11 as assessing non-violent disciplinary behaviour ($\alpha = .82$); the remaining items assess disciplinary behaviours which can be used either violently or non-violently, and because of this ambiguity were not included in this study. The survey asked, for example, 'When this child misbehaved (minor or severe) in the past year... how often did you spank, slap, or smack this child?'

Perceived descriptive norms

This is a modified version of the actual descriptive norms scale detailed above. Participants were asked how often they thought most other parents who send their children to the ECD centre use a variety of discipline methods: 'Now we want to know what you think most parents who send their children to [name of ECD centre] do when their child misbehaves'. (Violent disciplinary behaviour, $\alpha = .79$; Non-violent disciplinary behaviour, $\alpha = .84$).

Actual Injunctive norms

This measure asked participants to rate their level of approval of the 20 discipline methods: 'Regardless of what you yourself do, we would like to have your opinion about doing each of the following with children who are about the same age as the child you described in this questionnaire. So we are not asking about what you actually do, but rather we are asking what you think is right to do'. The responses range from 'I think it is: 1. Never OK, 2. Rarely OK, 3. Usually OK, 4. Always or Almost Always OK'. (Violent disciplinary behaviour, $\alpha = .76$; Non-violent disciplinary behaviour, $\alpha = .60$).

Perceived injunctive norms

This measure examined parents' perceptions of the majority-held attitudes towards the 20 discipline practices by other parents who send their children to the same ECD centre. Parents were asked, 'What do you think most parents who send their children to [ECD centre name] think about doing each of following with children who are about the same age as the child you described in this questionnaire?' It mirrors measures used in other studies which set out (for instance) to determine the perceived injunctive norms of bullying behaviour (Perkins et al., 2011). The available responses ranged from 'Most parents who send their children to [ECD centre name] think it is: 1. Never OK, 2. Rarely OK, 3. Usually OK, 4. Always or Almost Always OK'. (Violent disciplinary behaviour, $\alpha = .80$; Non-violent disciplinary behaviour, $\alpha = .67$).

3.4 | Data analysis

All statistical analyses were performed in R (Version 3.5.3; R Core Team, 2017).

To quantify misperception of violent and non-violent parenting norms, we estimated the mean difference between an individual's actual and perceived norms of parenting practices, at each site. To assess evidence of non-zero mean differences, we used paired Z-tests.

Violent and non-violent parenting were studied separately, in turn. For each, a generalised linear model was used to analyse the association of actual descriptive parenting with the perceptions of the descriptive and injunctive norms of parenting of other ECD parents, while controlling for frequency of child minor misbehaviour, strength of social identification, child sex, child age, parent highest educational attainment and ECD centre. The scores for the norms were obtained by averaging all relevant items (see Section 3.3).

Likelihood ratio tests were used to assess whether there was moderation of the relationships between perceived norms and actual descriptive norms by each of social identification of parents and minor misbehaviour of children, and whether any relationships differed by site.

The violent and non-violent parenting norms were modelled using negative binomial and normal distributions, respectively. For the former, items were summed to obtain the required count form for the response during model fitting—however, reported effects have been translated to relate to the average-item scale. A log link was used in both models, and therefore all reported effect sizes are multiplicative. The model forms were chosen, and adequacy of fits confirmed, using residual diagnostic plots.

After applying the data exclusion rules above, $n = 189$ parents remained, with only <10% of these having missing data. The likelihood-based analysis will still yield valid estimates under a missing-at-random missingness mechanism, which we consider reasonable for our setting: listwise deletion of observations with missing data resulted in $n = 172$ and $n = 168$ for the violent and non-violent norms analyses, respectively. When data was missing, only 1–2 items were missing per norm, and therefore as a simple sensitivity analysis, findings were compared when the averages of reported items were used to replace otherwise missing norm scores.

4 | RESULTS

The pairwise correlations amongst the (pseudo-)continuous measures are reported in Table 1. For each of violent and non-violent parenting, positive associations amongst the four norms (actual/perceived descriptive/injunctive norms) are observed, with the strongest associations occurring between actual and perceived descriptive norms, and between actual and perceived injunctive norms. Expectedly, positive associations also occur between frequency of misbehaviour and descriptive norms.

Characteristics of the parents and their children are described in Table 2. The overall median level of misbehaviour is 5, corresponding to misbehaviour 'a few times a month', though with higher levels in Ocean View than Khayelitsha. Children are 2–7 years old, with the central half between 3 and 5 years of age, and generally equally split between male and female. Over half (57%) of parents do not have a high school qualification. The social identification score is tightly clustered between 1 and 2 (theoretical range is 1–7) and therefore provides little distinction amongst individuals in our study, limiting its utility in the analyses to follow.

4.1 | Misperception of the violent and non-violent parenting norms

The social norms data are described, and within-subject differences between actual and perceived norms investigated, in Table 3.²

4.1.1 | Violent parenting: Differences between perceived and actual norms

Overall, the mean actual descriptive norm is approximately 2, corresponding to the parenting behaviour occurring 3–5 times a year, while the mean perceived descriptive norm is 3 (the parenting behaviour occurs 6–9 times a year). The mean actual and perceived injunctive norms are between 0 and 1, corresponding to the behaviour being considered 'never' or 'rarely okay'.

In Khayelitsha, on average, an individual's perceived descriptive norm of violent parenting was larger than the corresponding actual descriptive norm (p -value: <.001). In Ocean View, on average, both an individual's perceived descriptive and injunctive norms of violent parenting were larger than the corresponding actual norms (p -value: <.001).

TABLE 1 Correlation matrix: Pairwise spearman correlation coefficients (and 95% confidence intervals) amongst norms, caregiver social identification score and child minor misbehaviour frequency score, for violent and non-violent parenting in turn

	Perceived descriptive norm	Actual injunctive norm	Perceived injunctive norm	Social identification	Misbehaviour frequency
Violent parenting					
Actual descriptive norm	0.35 (0.21, 0.47)	0.22 (0.07, 0.35)	0.18 (0.04, 0.32)	0.16 (0.01, 0.30)	0.31 (0.18, 0.44)
Perceived descriptive norm		0.19 (0.04, 0.33)	0.22 (0.07, 0.36)	0.25 (0.11, 0.38)	0.25 (0.11, 0.38)
Actual injunctive norm			0.54 (0.42, 0.64)	-0.01 (-0.15, 0.14)	-0.20 (-0.34, -0.06)
Perceived injunctive norm				0.10 (-0.05, 0.24)	-0.06 (-0.20, 0.09)
Social identification					0.00 (-0.14, 0.15)
Non-violent parenting					
Actual descriptive norm	0.69 (0.60, 0.76)	0.36 (0.22, 0.48)	0.32 (0.18, 0.45)	0.07 (-0.08, 0.22)	0.45 (0.32, 0.56)
Perceived descriptive norm		0.28 (0.14, 0.41)	0.22 (0.08, 0.36)	0.11 (-0.04, 0.25)	0.31 (0.17, 0.43)
Actual injunctive norm			0.54 (0.42, 0.64)	0.11 (-0.03, 0.25)	0.30 (0.17, 0.43)
Perceived injunctive norm				0.05 (-0.10, 0.19)	0.15 (0.00, 0.29)
Social identification					0.00 (-0.14, 0.15)

4.1.2 | Non-violent parenting: Differences between perceived and actual norms

Overall, the mean actual and perceived descriptive norms are approximately 5, corresponding to the parenting behaviour occurring a few times a month. The mean actual and perceived injunctive norms are approximately 2, corresponding to the behaviour being considered 'usually okay'.

There was no strong evidence of differences between actual and perceived norms, other than for Ocean View: on average, an individual's perceived injunctive norm of non-violent parenting was less than the actual injunctive norm (p -value < .01).

4.2 | Variables associated with parenting

4.2.1 | Variables associated with violent parenting

Using likelihood ratio tests, there was no evidence of moderation of effects by social identification or minor misbehaviour frequency ($p = .972$), or for site-specific relationships ($p = .363$), therefore only main effects are included in the reported model (see Table 4).

There is strong evidence of positive associations between self-reported violent parenting behaviour and each of the perceived descriptive norm (multiplicative effect = 1.123, 95%CI [1.046, 1.206], $p = .002$), parent-reported child

TABLE 2 Demographic, child behaviour and caregiver social identification characteristics of participants, by site

	Khayelitsha (n = 88)	Ocean View (n = 95)	Both sites (n = 183) ^a
Site			
Khayelitsha: % (n)			48% (n = 88)
Ocean View: % (n)			52% (n = 95)
Minor misbehaviour in past year (possible range: 1–9)			
Minimum–maximum	1–9	1–9	1–9
Median (Q1–Q3)	2 (1–5.25)	6 (3–7)	5 (2–6)
Social identification (possible range: 1–7)			
Minimum–maximum	1–5.25	1–5.5	1–5.5
Median (Q1–Q3)	1 (1–1.31)	1.5 (1–2)	1.25 (1–1.75)
Child sex			
Female: % (n)	43% (n = 38)	52% (n = 49)	48% (n = 87)
Male: % (n)	57% (n = 50)	48% (n = 46)	52% (n = 96)
Child age in months			
Minimum–maximum	24–84	34–76	24–84
Median (Q1–Q3)	50 (39–70)	60 (52–67)	56 (46–67.5)
Caregiver education			
Less than matric: % (n)	49% (n = 43)	64% (n = 61)	57% (n = 104)
At least matric: % (n)	51% (n = 45)	36% (n = 34)	43% (n = 79)

Abbreviations: Q1, quartile 1; Q3, quartile 3.

^aThe $n = 183$ observations that contribute to either the violent or non-violent norm models are included.

misbehaviour (1.089, 95%CI [1.042, 1.139], $p < .001$), and social identification (1.175, 95%CI [1.012, 1.364], $p = .034$). There is also moderate evidence of a positive association between violent parenting behaviour and the perceived injunctive norm (1.216, 95%CI [0.982, 1.499], $p = .069$). The average violent parenting behaviour score is observed to increase by 12 and 22% with each unit increase in perceived descriptive and injunctive norm scores, respectively.

4.2.2 | Variables associated with non-violent parenting

While there was no evidence of moderation of effects by social identification or minor misbehaviour frequency using a likelihood ratio test ($p = .612$), site-specific relationships were evident ($p < .001$), therefore, a separate model is reported for each site (see Table 5).

In Khayelitsha, the results provide strong evidence for self-reported non-violent parenting being positively associated with: the perceived descriptive norm (multiplicative effect = 1.144, 95%CI [1.112, 1.176], $p < .001$); the perceived injunctive norm (1.132, 95%CI [1.016, 1.262], $p = .027$); level of social identification (1.066, 95%CI [1.017, 1.117], $p = .010$); and parent educational attainment (1.104, 95%CI [1.022, 1.192], $p = .014$). There is also moderate evidence of a positive association with parent-reported minor misbehaviour of children (1.015, 95%CI [0.998, 1.032], $p = .086$).

In Ocean View, there is strong evidence of positive relationships between self-reported non-violent parenting behaviour and: the perceived descriptive norm (1.104, 95%CI [1.059, 1.150], $p < .001$) and parent-reported child misbehaviour (1.056, 95%CI [1.030, 1.084], $p < .001$). There is also some weaker evidence of a negative relationship with parent educational attainment (0.894, 95%CI [0.785, 1.020], $p = .099$) and a positive relationship with the perceived injunctive norm (1.130, 95%CI [0.952, 1.341], $p = .166$).

TABLE 3 Norm characteristics of participants and comparison of average actual to average perceived norms, by site

	<i>n</i>	Actual norms		Perceived norms			Difference in means: Actual minus perceived	
		Mean (SD)	Median (Q1, Q3)	Mean (SD)	Median (Q1, Q3)	Estimate (95% CI)	<i>p</i> -Value	
Khayelitsha								
Violent descriptive ^a	87	1.63 (1.29)	1.22 (0.61,2.44)	2.54 (1.52)	2.33 (1.50,3.56)	-0.90 (-1.25, -0.55)	<.001	
Violent injunctive ^b	79	0.65 (0.56)	0.44 (0.22,0.89)	0.58 (0.48)	0.44 (0.22,0.78)	0.07 (-0.03, 0.17)	.169	
Non-violent descriptive	83	4.61 (1.50)	4.73 (3.59,5.68)	4.73 (1.63)	4.64 (3.36,5.95)	-0.12 (-0.33, 0.10)	.296	
Non-violent injunctive	85	1.77 (0.40)	1.82 (1.64,2.00)	1.76 (0.39)	1.73 (1.64,2.00)	0.02 (-0.05, 0.09)	.623	
Ocean View								
Violent descriptive	90	1.75 (1.26)	1.33 (0.92,2.44)	2.93 (1.87)	2.78 (1.33,4.22)	-1.18 (-1.56, -0.80)	<.001	
Violent injunctive	95	0.50 (0.44)	0.44 (0.22,0.67)	0.69 (0.61)	0.44 (0.33,1.00)	-0.19 (-0.31, -0.08)	.001	
Non-violent descriptive	91	4.61 (1.82)	5.00 (3.09,5.95)	4.69 (1.75)	4.91 (3.41,6.05)	-0.08 (-0.41, 0.24)	.605	
Non-violent injunctive	89	2.04 (0.33)	2.00 (1.82,2.27)	1.92 (0.46)	1.91 (1.73,2.18)	0.12 (0.04, 0.21)	.005	
Both sites								
Violent descriptive	177	1.69 (1.27)	1.33 (0.78,2.44)	2.74 (1.72)	2.56 (1.44,4.00)			
Violent injunctive	174	0.57 (0.50)	0.44 (0.22,0.78)	0.64 (0.56)	0.44 (0.22,0.89)			
Non-violent descriptive	174	4.61 (1.67)	4.86 (3.36,5.91)	4.71 (1.69)	4.64 (3.36,6.00)			
Non-violent injunctive	174	1.91 (0.39)	1.91 (1.73, 2.18)	1.84 (0.43)	1.91 (1.64, 2.16)			

Abbreviations: CI, confidence interval; Q1, quartile 1; Q3, quartile 3.

^aPossible range for all descriptive norm scores: 0 (never in past year) to 9 (two or more times a day).^bPossible range for all injunctive norms scores: 0 (never okay) to 3 (always or almost always okay).

TABLE 4 Modelled violent parenting associations: Multiplicative change in average actual descriptive norm (possible range: 0–9) associated with changes in perceived descriptive and injunctive norms, controlling for child misbehaviour frequency, strength of social identification, child sex, child age and caregiver education, by site ($n = 172$)

	Multiplicative 'effect'	95% CI	p-Value
Perceived descriptive norm (possible range: 0–9)	1.123	(1.046, 1.206)	.002
Perceived injunctive norm (possible range: 0–9)	1.216	(0.982, 1.499)	.069
Minor misbehaviour in past year (possible range: 1–9)	1.089	(1.042, 1.139)	<.001
Social identification (possible range: 1–7)	1.175	(1.012, 1.364)	.034
Child sex (ref: male)	0.853	(0.685, 1.063)	.228
Child age in months (range: 24–84)	1.001	(0.992, 1.009)	.157
Education—at least matric (ref: less than matric)	1.052	(0.841, 1.315)	.845
Site—Ocean View (ref: Khayelitsha)	0.865	(0.684, 1.095)	.845

Abbreviation: CI, confidence interval.

TABLE 5 Modelled non-violent parenting associations: Multiplicative change in average actual descriptive norm (possible range: 0–9) associated with changes in perceived descriptive and injunctive norms, controlling for child misbehaviour frequency, strength of social identification, child sex, child age and caregiver education, by site ($n = 168$)

	Khayelitsha ($n = 82$)			Ocean View ($n = 86$)		
	Multiplicative effect	95% CI	p-Value	Multiplicative effect	95% CI	p-Value
Perceived descriptive norm (possible range: 0–9)	1.144	(1.112, 1.176)	<.001	1.104	(1.059, 1.150)	<.001
Perceived injunctive norm (possible range: 0–9)	1.132	(1.016, 1.262)	.027	1.130	(0.952, 1.341)	.166
Minor misbehaviour in past year (possible range: 1–9)	1.015	(0.998, 1.032)	.086	1.056	(1.030, 1.084)	<.001
Social identification (possible range: 1–7)	1.066	(1.017, 1.117)	.010	0.997	(0.933, 1.065)	.923
Child sex—female (ref: male)	0.996	(0.919, 1.079)	.916	0.976	(0.870, 1.095)	.681
Child age in months (range: 24–84)	1.001	(0.998, 1.003)	.688	1.003	(0.997, 1.010)	.294
Education—at least matric (ref: less than matric)	1.104	(1.022, 1.192)	.014	0.894	(0.785, 1.020)	.099

Abbreviation: CI, confidence interval.

In each site, unit increases in any of the perceived norm scores were associated with 10–15% increases in the average non-violent actual descriptive score.

4.2.3 | Sensitivity analysis

When analyses were re-rerun to include observations with missing data by computing norm scores as the mean values for non-missing items, the results remained similar. With the exception of the relationship between actual

descriptive norms and perceived injunctive norms where effect sizes and p-values fluctuated non-negligibly, all other findings endured. This was also observed when removing potential outliers (identified using standard regression diagnostic metrics).

5 | DISCUSSION

In both communities, parents tended to overestimate the prevalence (descriptive norm) and support (injunctive norm) for violent parenting, while in the Ocean View site parents underestimated support for, but not prevalence of, non-violent parenting. This provides evidence to support H1 for violent parenting, and partial evidence to support H1 for non-violent parenting behaviours.

Moreover, perceived descriptive norms were found to be associated with self-reported parenting behaviour in both sites, providing evidence for H2. Parents' perception of the descriptive norm of violent parenting (i.e., perception of the violent parenting behaviour of fellow ECD parents) was associated with higher rates of self-reported violent parenting. The association between perceived injunctive norms and violent parenting was non-significant, but the relationship was in the expected direction and the multiplicative effect was actually larger than for perceived descriptive norms. These findings are in line with previous empirical studies using the norms perception approach and its application to a variety of behaviours (Tankard & Paluck, 2016). More specifically, a one-unit increase in perceived violent parenting descriptive norms was associated with a 12.3% increase in self-reported violent parenting. While this may appear to be a small change, if intervention studies find it to occur in practice and to be robust, it would both represent a reduction in VAC, and be a relatively easy gain for a small intervention. This finding is novel and contributes to the extant literature on the social norms approach to behaviour change by suggesting that it may also apply to violent parenting behaviour.

For non-violent parenting behaviour, in Khayelitsha the hypothesis (H2) that perceived norms (descriptive and injunctive) would be associated with actual descriptive norms for non-violent parenting was strongly supported by the results. In Ocean View the perceived descriptive norm, but not the perceived injunctive norm (although this relationship was in the expected direction), was associated with own self-reported non-violent parenting behaviour, providing partial support for H2. These results further extend the theoretical and applied work on the norms perception approach by suggesting its applicability to non-violent parenting.

Parents' social identification with their ECD predicted self-reported violent and non-violent parenting behaviours (albeit only in Khayelitsha for non-violent parenting), suggesting a role for ECD identification in shaping parenting behaviour. However, social identification did not moderate the association between perceived norms and self-reported behaviour of violent parenting as expected (H3). This is perhaps unsurprising given that the majority of parents identified so strongly with their ECD. Future studies should pilot and employ social identification scales which better capture the spectrum of identification for this population, and it should be made clearer to participants that the items refer to identification with the ECD rather than whether they were objectively ECD parents or not. Moreover, further research could focus on communities where high levels of social identification are not ubiquitous and therefore stand a better chance of determining its potential moderating effects.

Children's minor misbehaviour also did not moderate the associations between perceived norms and parenting behaviours, suggesting that both descriptive and injunctive norms are independent of the effect of parents' perceptions of children's behaviour in determining parenting behaviour. This finding is at variance with much other literature, which suggests that caregiver violence towards children is elicited by, and viewed as a justifiable response to, misbehaviour (Merrick et al., 2015).

As noted, there were some differences in results between the two sites which points to the importance of context for potential interventions. Furthermore, there were no significant additive or multiplicative effects of child age or sex on parenting perceptions of self-reported behaviour. It is possible that gender and age effects identified in other studies may not apply in these highly stressed communities, a finding in line with other studies that find that

high levels of community violence increase the likelihood of violent parenting (Winstock & Straus, 2011). Future studies should investigate the conditions under which these age and gender effects apply.

Lastly, our finding that more educated parents were more likely to report using non-violent discipline suggests that maternal education may be a further mechanism for preventing VAC.

5.1 | Implications of the study

The study's findings contribute to the expanding field of social norms research. This research area develops and tests interventions which attempt to change behaviour through shifting social norms (Neville, 2015; Reynold et al., 2015; Smith & Louis, 2009; Tankard & Paluck, 2016). The chief contributions of the current study are threefold: first, the current study extends the theoretical work of the social norms perception approach by extending its potential application to the field of parenting. To our knowledge, this is an untested application which could offer an important avenue for cost-effective and evidence-based add-on or stand-alone components to parenting programmes.

Second, since social norms interventions have been critiqued for over-reliance on university student samples (Neville, 2015), the current study extends previous research by testing the assumptions of the social norms perception approach in marginalised and at-risk populations.

Third, the study took place in South Africa, a low-resource country. Since the vast majority of social norms and parenting intervention research has taken place in the United States and other developed countries, the current study adds value by examining social norm misperceptions regarding parenting discipline in an under-resourced context, and thereby opens up potential avenues for future interventions. The implementation of future social norms-based interventions will be most effective if conducted in a culturally sensitive manner, such that they work to help promote protective norms by building on existing cultural worldviews (Cislaghi & Heise, 2018a) and acknowledge the broader range of structural factors which impact behaviour (Cislaghi & Heise, 2018b). For instance, most Western cultures are individualistic and emphasise inductive discipline, while many non-Western cultures are collectivist and may use more punishment than verbal reasoning (Yagmurlu & Sanson, 2009). Moreover, interventions should be creatively adapted to fit with culturally appropriate modes of delivery (for instance, radio soap operas; Tankard & Paluck, 2016).

Perceived descriptive norms were found to be associated with self-reported behaviour in terms of violent and non-violent parenting. This is a novel finding which suggests that parents' perception of the prevalence of parenting behaviour is associated with their self-reported behaviour. A social norms intervention which disseminates more accurate and adaptive norms of parenting behaviour in a particular naturalistic context may have potential for decreasing violent parenting and increasing non-violent parenting. For example, a school- or crèche-wide campaign could survey parents' norms of parenting and then educate parents about these norms (provided they encourage less violent parenting and more non-violent parenting). These social norm dissemination campaigns could use relatively low-cost methods such as posters, parent meetings, and social media advertisements. This is significant because there is currently a lack of evidence-based and cost-effective parenting interventions for low- and middle-income contexts (Gardner, Montgomery, & Knerr, 2016; Mikton, 2012). Moreover, there is a general lack of evidence-based universal preventative programmes which address VAC (MacMillan & Mikton, 2017; Mikton & Butchart, 2009). Further research which tests these preliminary findings longitudinally and experimentally in other marginalised communities in low-resource contexts would help to answer the question of applicability and generalizability of our findings in a more rigorous way.

Perceived injunctive norms were found to be associated with self-reported non-violent parenting in one of the two study sites and but were not significantly associated with self-reported violent parenting. It is worth noting however that the relationships between perceived injunctive norms and self-reported behaviour were all in the expected directions with non-negligible effect sizes. The non-significant effects may also reflect a measurement issue: as there are no standardised and empirically validated measures of injunctive norms of parenting practices, future research

should determine the best way to measure injunctive norms as well as determine which factors influence the association between perceived injunctive norms and behaviour. Studies that seek to replicate our results will also help to make clear whether this is a measurement issue, or an accurate reflection of the relative lack of impact of perceived injunctive norms for parenting behaviour.

5.2 | Limitations of the study and suggestions for future research

The current study has a number of limitations. First, the study used a cross-sectional design to test its hypotheses, and thus no causal conclusions can be drawn. For example, we cannot be certain whether parents' perceptions of what was normative in their ECD centre influenced their own behaviour or vice versa. Future studies of norms and parenting should employ longitudinal and experimental designs to better answer the question of whether perceived norms are causally related to actual behaviour.

Second, the study surveyed only two ECD centres, and thus the results may not be generalisable to other contexts. However, a crucial component of successful social norms interventions is that they are tailored to a specific context and set of norms (Cislaghi & Heise, 2018a, 2018b; Neville, 2015). Thus, perhaps the issue of generalizability is less of a concern for the purposes of exploring whether norms perception approaches might be applicable in an ECD centre.

Third, the analyses reported here included only female caregivers due to the gender imbalance in response rate. Fathers can also be key caregivers, and it is important for future research to assess their injunctive and perceived, actual and descriptive, norms with regard to violent parenting.

A further set of limitations of this study refers to issues of measurement. First, we collected self-report data which is susceptible to social desirability bias, which may be particularly the case when parents report on their own violent parenting. Future studies should consider also including a social desirability measure, or data collected from children reporting on their parents, or from observational assessments. Independently coded data would also allow us to explore whether norms affect parent perceptions of misbehaviour, or whether (as we hypothesise), more serious child misbehaviour elicits more violent discipline. Manifestly, collecting data from children is only possible with older children than were the focus of this study; we chose to focus on young children so as to investigate the possibility of interrupting violent parenting as early as possible. Related to this point, the design could be strengthened by collecting self-reported actual descriptive and injunctive data from one half of the sample, and perceived descriptive and injunctive norms from the other half in order to prevent participants calibrating their responses to appear 'better' than their peers (Melson, Davies, & Martinus, 2011). Second, the measure of children's misbehaviour may respond to parents' perceptions, with more violent parents perceiving more frequent and more serious misbehaviour; observational measures may correct for this kind of perception. Further, some of the scales, particularly for perceived descriptive and injunctive norms, had to be developed by the research team as no comparable scales existed. Although these scales were piloted prior to the study, and were tested for internal consistency reliability, they did not undergo other psychometric testing. Three in particular had low values of Cronbach's alpha: actual descriptive norms for violent behaviour (0.68), actual injunctive norms for non-violent behaviour (0.60) and perceived injunctive norms for non-violent behaviour (0.67). Future research should focus on developing rigorously tested scales of perceived norms to improve future work on the social norms of parenting practices.

6 | CONCLUSION

With Sustainable Development Goal 16.2, the world is poised to make a substantial difference to children's lives, through reducing VAC (WHO, 2016). To do this, affordable interventions that can be delivered at scale are needed. The findings from this study suggest that parents can misperceive social norms regarding non-violent and violent

parenting, and that their (mistaken) social norms perceptions can may have an impact on their parenting behaviour. There is therefore the potential for social norms interventions to correct parental normative misperceptions and promote non-violent parenting behaviours in a relatively cost-effective manner. Future research is required to replicate this article's findings in other contexts (other ECD centres, other cultural settings) as well as testing the effectiveness of social norm interventions in reducing violent parenting and promoting non-violent parenting.

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DATA AVAILABILITY STATEMENT

The anonymised dataset will be made publicly available upon publication at this address—https://osf.io/wmzqc/?view_only=d70377a49e4d4528ab31b0327e5a816c.

ORCID

Fergus G. Neville  <https://orcid.org/0000-0001-7377-4507>

ENDNOTES

- ¹ The anonymised dataset can be accessed here—https://osf.io/wmzqc/?view_only=d70377a49e4d4528ab31b0327e5a816c.
- ² Consistent with existing literature, mean perceived and actual norms are compared in the analysis presented in the main text. However, the phrasing of the question may suggest the mode of actual norms be compared to mean perceived norms—in such an analysis (details not shown), results remained similar. For violent parenting, actual norms statistics were always below perceived, and for non-violent norms, actual norms statistics were always greater than perceived. In terms of statistical evidence/uncertainties, there was strong to moderate evidence for the violent norm differences (all p -values $<.1$), but not for the non-violent norm differences (all p -values $>.4$).

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