



# Children’s Experiences of Bullying Victimization and the Influence on Their Subjective Well-Being: a Population-Based Study

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## Abstract

Bullying is both a major public health concern and a violation of children’s right to safety from violence. Within the past decade, there has been an increasing interest in the relation between bullying and children’s subjective well-being (SWB). Empirical research has unequivocally demonstrated the significant negative influence of bullying on children’s SWB. Within the South African context, violence and aggressive behaviour is widespread. The high prevalence of school bullying in South Africa is intricately related to the intergenerational experiences of violence, rooted in the history of racism, prejudice, oppression, exclusion, and the discriminatory practices of apartheid. However, there are limited large-scale studies that explores the relation between bullying victimization and children’s SWB. The current study, uses a population-based sample to explore the relation between bullying victimization and children’s SWB in South Africa, across provincial regions (nine provinces), age (10- and 12-years), gender (boys and girls), geographical context (urban and rural), and socio-economic status (low, lower-middle, and middle socio-economic status). The study uses Subjective Well-Being Homeostasis Theory to frame and interpret the findings. We found a significant negative relationship between bullying victimization and children’s SWB. The combined influence of being hit, called unkind names and socially excluded explained 6% of the variance in SWB for the overall sample, with some variation across provincial region, age groups, gender, geographical context, and socio-economic status. The study further found that increased incidences of bullying experiences were associated with lower mean scores of SWB. Finally, the study found that even though the different forms of bullying victimization have a significant negative influence on children’s SWB, the homeostatic mechanism is potentially mediating this influence and maintaining levels of SWB.

**Keywords** Bullying victimization · Subjective well-being · Children · South Africa · National study · Multistage stratified proportionate random sampling

## 1 Background and Rationale

Subjective well-being (SWB) is an overarching concept in the field of social and health sciences. It refers to the cognitive and affective perceptions, experiences and evaluations that individuals have about their lives in general and specific aspects of their lives (Diener, 2009). As it relates to children, SWB refers to how children think, feel, and evaluate their lives and various life circumstances (Casas, 2011). There has been a proliferation in research on children's SWB over the past two decades, driven largely by advances in children's rights legislation and childhood theory, and the realisation by policy makers that both objective and subjective indicators are required to provide a more comprehensive understanding of children's lives and developmental trajectories (Savahl et al., 2021, 2023). A particular strand of research has been to explore the correlates of children's SWB, seeking to answer the question: What factors significantly contribute to variations in children's SWB?

Researchers have found, amongst others, that social relationships (Goswami, 2012), freedom of choice (Bradshaw & Rees, 2017; Casas et al., 2013), school climate (Varela et al., 2021), material deprivation (Main, 2014), time-use (Rees, 2017; Savahl et al., 2019a, b), and safety (González-Carrasco et al., 2019), contribute significantly to the variations in children's SWB. One factor in particular that demonstrated a consistently significant relation with SWB across different contexts is that of bullying (Savahl et al., 2019b; Tiliouine, 2015; Varela et al., 2020).

### 1.1 Conceptual Considerations of Bullying

Bullying is both a major public health concern and a violation of children's right to safety from violence (Olweus et al., 2019). Empirical research into bullying is considered relatively recent, with a four-decade long history, commencing with the work of Olweus (1973). He advanced a novel method for studying bullying at the time, using self-report questionnaires. This ushered in a wave of research exploring the conceptual and measurement issues and factors related to bullying behavior (Olweus, 2009). While debates continue about the definition of bullying, there is widespread consensus that it is a type of aggressive behaviour, which includes the criteria of intention to harm another, a power imbalance between the aggressor and victim, and a repetition of incidents (Menesini & Salmivalli, 2017). However, the criteria of 'repetition' has been disputed (Cuadrado-Gordillo, 2012; Hunter et al., 2007). Some scholars argue that repetition distinguishes bullying from 'normative aggression' (Olweus, 1973; Chang, 2021), while others contend that a single occurrence of victimization can be considered bullying, given the context (Olweus, 1973). The same applies to cyber-bullying, as it may have longer lasting consequences given its public accessibility and, at times, anonymous nature (Chang, 2021; Langos, 2012). In relation to the 'power imbalance', Olweus (1993) argues that incidents where two peers are of comparable physical strength then the criteria for bullying is not met. The power imbalance renders bully victims vulnerable and unable

to defend themselves (Chang, 2021; Slattery et al., 2019). Further, Chang (2021) notes that the “subjective nature of an intent can lead to disagreement among actors, recipients, and observers” (p.145). While debates continue around the characteristics of bullying, most researchers adopt at least one of the three criteria mentioned above (Slattery et al., 2019).

Currently, conceptual definitions of bullying encompass more than physical harassment, and comprise various form of bullying, including psychological bullying (such as social exclusion), verbal bullying (such as verbal threats and name-calling, offensive gestures, and facial expressions, gossip, and rumor-mongering), and cyber-bullying (Armitage, 2021). Psychological bullying (indirect) is also referred to as relational bullying, while verbal bullying (direct and indirect) is also known as social bullying (Shaw et al., 2013). Chang (2021) identify four bullying types (physical, verbal, relational, and cyberbullying) and two modes (direct and indirect) of bullying.

There are three main role players in bullying incidents, namely the victim, bully (also referred to as perpetrator), and bully-victim (this individual is both a victim and perpetrator of bullying). Recent research increasingly focuses on the role of bullying bystanders, those who witness bullying victimization. Thornberg et al. (2012) contend that bystanders can adopt several roles, such as, 1) ‘*reinforcers*’, those who support bullies, 2) ‘*outsiders*’, those who do not engage in bullying or with bullies, and 3) ‘*defenders*’, those who assist the bully victim (Thornberg et al., 2012). It is important to understand the impact of bullying bystanders given the different ways that they can influence their peers. In addition to the various role players in bullying incidents, the context in which it takes place has also been a focus of research. Bullying often takes place within various settings, such as the home, school, and neighbourhood, and is characterized as either peer bullying or sibling bullying (Wolke et al., 2015). This represents the ubiquitous ecology of bullying that permeates the child’s life. Finkelhor et al.’s (2007) concept of ‘poly-bullying victimization’ or ‘poly-bullying’ as a subset of ‘poly-victimization’, is important to consider in this regard. Poly-victimization refers to the frequency of victimizations that children experience and focuses on the vulnerability they experience across settings. It underscores the role of repetitive childhood victimizations as part of ‘multiple victimizations’ they experience (Clausen & Crittenden, 1991). For example, children who may experience child abuse or domestic (family) violence are at heightened risk for further victimizations (Duncan, 1999), including school bullying. Longitudinal research by Perry et al. (2001) found that a number of children are (re)victimized each year.

The cumulative effects of bullying have short, medium, and long-term consequences on children’s health and well-being (Armitage, 2021; Olweus & Breivik, 2014; Wolke & Lereya, 2015). The negative effects are pervasive, and include emotional, physical, or behavior concerns (Rigby & Slee, 1993), and influenced by the intensity, frequency, type, and timing of bullying. Armitage (2021) discusses three main categories related to the consequences of bullying, namely: (1) educational consequences during childhood, (2) health consequences during childhood, and (3) all consequences during adulthood. The consequences permeate many spheres of children’s lives, and include internalizing and externalizing symptoms, such as social isolation, low self-esteem, school absenteeism, concentration difficulties,

psychosomatic symptoms, and higher levels of psychoactive substance abuse, social anxiety and suicide ideation (Fitzpatrick & Bussey, 2011; Garay et al., 2013; Savahl et al., 2019a, b; World Health Organization, 2012). Although the adverse impacts of bullying are most burdensome for bully victims, it is key to understanding the mechanisms behind all types of bullying. For this reason, bullying prevention and mitigation is essential, and requires intersectoral co-operation for effective outcomes (Armitage, 2021; Wolke & Lereya, 2015). Armitage (2021) argues that “Clear management and referral pathways for health professionals dealing with childhood bullying are lacking in both primary and secondary care, although specialist services are available locally and online” (p. 3).

Kousholt and Basse Fisker (2015) differentiate between first-order and second-order approaches to bullying. First-order approaches delineate bullying as reflective of a person’s antisocial and dysfunctional behaviour, embedded in the ‘medical model of disability’ (Duncan, 2013). Bullying programmes based on this approach are aimed at skills development and behaviour change to safeguard victims, including empathy training for bullies, and building confidence in bully victims (Walton, 2005). Second-order approaches consider bullying to be a component of a social process (Kousholt & Basse Fisker, 2015). This approach engenders a paradigm shift in bullying research that focuses on context, with programmes being targeted at the school level and the broader social environment. Duncan (2013) refers to this approach as a ‘social model analysis of bullying in schools’.

The concept of ‘social exclusion anxiety’ provides an understanding of the social dynamics of bullying (Søndergaard, 2012). Research by Duffy and Nesdale (2009), employing Social Identity Theory, found within-group similarities in bullying behaviors, with bullying increasing when accepted as a group norm. The Gateway Theory (Craig et al., 2009) suggests that bully-victims could potentially become bullies, whereby bullying behaviors become embedded in their social life. This could create a ‘gateway progression of risk’ leading to long-term psychosocial and developmental consequences (Craig et al., 2009; Savahl et al., 2017). Several other theories (Social Learning Theory, Social Cognitive Theory, and Sociocultural Theory) are located within the second-order perspective (Monks et al., 2009).

## 1.2 Bullying and Subjective Well-Being

Within the past 10-years, there has been an increasing interest amongst researchers in the relation between bullying and children’s SWB. One of the earlier studies, conducted by Klocke et al. (2014), used data from the Health Behaviour in School-Aged Children (HBSC) study to explore international variations in children’s SWB. They found that the frequency of bullying had a significant negative association with SWB across multiple contexts.

Tiliouine (2015) investigated the prevalence of active and passive bullying and the effect on the SWB of Algerian children aged 8, 10, and 12-years. The study found that both forms of bullying were significantly associated with children’s SWB – those who experienced bullying had lower levels of SWB compared to those who did not. Bullying victimization was also found to be more prevalent among children

belonging to less advantaged families, families changing house, and those moving to a different area.

Among the studies exploring the bullying-SWB relation, Savahl et al.'s (2019b) seminal publication provides the first cross-cultural analysis with a sample of 46,029 children between the ages of 8 and 12-years across 15 countries. The findings show that the combined influence of being 'hit' (active bullying) and being 'left out' (passive bullying) explained 2% of the variation in children's SWB. For 8-year-olds, active forms of bullying contributed more to variations in SWB, whereas passive forms of bullying made a greater contribution for the 10- and 12-year-olds.

Similarly, Bradshaw and Rees (2017) found an association between bullying victimization and variations in levels of children's SWB at the country, as well as between-country level. Almost all countries showing significantly lower SWB for children who had been bullied as opposed to those who had not. The study used data from Wave Two of the Children's Worlds survey, conducted with over 56,000 children aged 8 to 12-years old across 16 diverse countries.

Varela et al. (2020) examined the relation between bullying victimization and the mediating role of school climate within this relation. The sample consisted of 1,829 12-year-old children from Chile and South Africa. The study formed part of and used data from Wave Three of the Children's Worlds Survey. The study found a negative relation between bullying victimization and SWB. This relation was mediated by school climate in both countries. Mediation analysis indicated that bullying victimization had a direct effect on SWB, and an indirect effect through school climate.

Borualogo and Casas (2021) explored sibling bullying and school bullying of children aged 8, 10, and 12-years old in Indonesia. The study used data from Wave Three of the Children's Worlds Survey, with a sample of 21,002 (49.44% boys, 50.56% girls) elementary school students from Grades 2, 4, and 6, which was conducted in West Java Province. The study is somewhat unique as it included a consideration of sibling bullying. The study found a significant negative relation between physical bullying (being hit by siblings) and children's SWB. While verbal bullying (called unkind names) by siblings showed significant effects in all three grades. Conversely, physical bullying by other children did not display a significant effect on children's SWB for Grades 2 and 4, with only a low level of significance for Grade 6. However, verbal bullying by other children at school displayed significant effects for Grades 2 and 4, with no significance for Grade 6. Being 'left out' (passive bullying) by other children showed significant effects for all grades.

More recently, Oriol et al. (2020) focused on the effects of school bullying on different cognitive and affective SWB measures among 568 Peruvian children and adolescents (aged 10 to 18-years) from the residential care system. The results indicate that being a victim of bullying has a negative effect on the well-being of both early and late adolescents. Using mediation analysis, bullying victimization displayed an indirect effect on the cognitive and affective indicators of SWB in early adolescents and only on the cognitive indicators in late adolescents.

Xu and Fang (2021) explored the relation between school bullying, school belonging, and SWB. They used data from the PISA 2018 assessment, which included a sample of 12,058 middle school students (over 15 years old) from mainland China. They found a negative correlation between school bullying and students'

school belonging and their SWB. However, they found that school belonging mediated the negative correlation between school bullying and SWB.

The study by Borualogo and Casas (2023) investigated the relation between children's experiences of various forms of bullying and their SWB in seven low-industrialised Asian countries. They also aimed to ascertain the differential relation between bullying victimization and SWB across these countries. The study used data from Wave Three of the Children's Worlds survey across the age groups 10- and 12-year-old within seven Asian countries (Bangladesh, India, Indonesia, Malaysia, Nepal, Sri Lanka, and Vietnam). A representative sample of 11,483 children (49.4% boys and 50.6% girls; mean age = 11.21) was employed across the seven countries. The study's results confirmed earlier studies of a significant negative relation between bullying victimization and SWB of children in nearly all countries, including Asian ones, showed a significant negative contribution. The strongest negative contribution to SWB of children was being left out (passive bullying) by other children, while the most frequent bullying incident was being called unkind names (verbal bullying). This was more frequently used among boys than girls. The study further found the SWB Homeostasis Theory by Cummins (2014) to be useful in understanding bullying among children in non-Western countries, in that children could deploy defense mechanisms in dealing with adverse situations to protect their SWB. The results of the study added new evidence and insights to current knowledge about bullying victimization in Asian countries.

In summary, bullying victimization leads to variations in SWB. The studies show that it has a significantly negative influence on the SWB of children with varied effects across different age groups (8 to 12-years-old), in both early and late adolescents. Active and passive bullying victimization are both significant contributors with deleterious effects on children's SWB. Various factors contribute toward compounding, mediating, or mitigating the challenges of bullying victimization, such as low socioeconomic status (SES), non-sedentary families or families experiencing change, sibling bullying, school climate, school belonging, and parenting styles. The findings of the studies on the relation between bullying victimization and children's SWB are consistent within country and across country contexts.

### 1.3 The Context of School-Based Bullying in South Africa

Violence and aggressive behaviour is widespread in the South African context (Adams & Savahl, 2022; Mathews et al., 2019). While the country's objective indicators demonstrate that violence against children by adults is among the highest in the world, the same has been found for peer violence and aggression, including bullying (Rees et al., 2020). Those working from an 'identity and oppression' perspective argue that the high prevalence of school bullying in South Africa is intricately related to the intergenerational experiences of violence, rooted in the history of racism, prejudice, oppression, exclusion, and the discriminatory practices of apartheid (Adams & Savahl, 2022). This is exacerbated by poverty, inequality, and social exclusion. Several empirical research studies show high levels of bullying victimization in South African schools (Burton & Leoschut, 2013; Reddy et al., 2002; Rees et al., 2020;

Savahl & Adams, 2020; Savahl et al., 2019b; Townsend et al., 2008); reflecting the broader context of violence.

In South Africa empirical research studies have investigated perspectives on bullying victimization (Reddy et al., 2003), internalizing and externalizing symptoms (Boyes et al., 2014), risk and protective factors (Juan et al., 2018; Mlisa et al., 2008), constructions of bullying (de Wet, 2005; Hlophe et al., 2017), cyberbullying (Farhangpour et al., 2019; Tustin et al., 2014), bullying in school toilets (Ngidi & Moletsane, 2018), the gendered nature of bullying and hegemonic masculinities (Mayeza & Bhana, 2021), and school dropout (Townsend et al., 2008). In line with the current study, Savahl et al. (2019b) and Varela et al. (2019) explored the relation between bullying victimization and children's SWB. The study by Savahl et al. (2019b) was the first to examine the relation between bullying victimization and children's SWB in South Africa. This comparative study used data from the Children's Worlds Wave Three study, which included 15 countries. Children in the South African study, drawn from the Western Cape Province, reported the highest level of bullying victimization across the 15 countries (Savahl et al., 2019a, b). Importantly the study found that higher levels of bullying victimization were related to significantly lower SWB scores among children. The key findings across all these studies point to a range of negative outcomes of bullying on children and adolescents.

Most studies on bullying among children in South Africa typically include small scale convenience samples, limiting the generalizability of the findings. There are two notable exceptions. One of the first studies to examine bullying in a representative sample was the First South African National Youth Risk Behaviour Survey (Reddy et al., 2002). The study sample comprised 10,699 children in grades 8–10. They found that 41% of children were victims of bullying. The second study was the '2015 Trends in International Mathematics and Science Study' (TIMSS), conducted with 12,514 children in grade 9. Using the TIMSS data, Juan et al. (2018) found that the prevalence of bullying victimization was higher among boys and those from low SES contexts (classified as no fee-paying schools). They also found 'perpetration' to be a significant risk factor for bully victims. An important finding of their analysis was that children's perceptions of the school environment were significantly related to the frequency of bullying victimization. Children who felt secure at school were less likely to be bullied, while those who felt exposed to unfair treatment by their teachers had a higher likelihood of being bullied.

#### 1.4 The Current Study

In South Africa there is also no national, population-based study that explores the relation between bullying victimization and children's SWB. Some earlier studies conducted by Savahl et al. (2019b), provided data on bullying victimization and children's SWB, albeit with a provincial sample (Western Cape). However, considering the heterogenous nature of children in South Africa and the diversity of the childhood experience, these results are not generalisable across South Africa. This raises the important issue of the lack of normative and population-level data on bullying victimization and children's SWB. Acquiring normative population-level data

is crucial for developing targeted programmes and policies to address bullying. The analysis of quality population-level data provides programme developers and policy makers with a comprehensive understanding of the needs and challenges faced by different cohorts of children across the country who are experiencing different forms of bullying victimization. The lack of good quality data constrains the efficacy of prevention and intervention programmes and can result in policies that do not achieve their intended goals.

The current study contributes in this regard using a population-based sample of children in South Africa. The overarching aim of the study is to explore the relation between bullying victimization and children's SWB in South Africa using a nationally representative sample of children. More specifically, the study aims to determine the nature of the relation across provincial regions (nine provinces), age (10- and 12-years), gender (boys and girls), geographical context (urban and rural), and socio-economic status (SES) (low, lower-middle, and middle SES).

### 1.5 Theoretical Framework

We use Cummins' SWB Homeostasis Theory (Cummins, 1995, 2010) in this study. The theory proposes a model that addresses the control and regulation of SWB by means of homeostasis. To make sense of the positive stability in SWB, Cummins (2010) argues that the 'homeostatic system' for each individual has a controlled 'set-point range' of SWB, and is genetically determined (Cummins, 2002). The set-point ranges from 60 to 90 (with a mean of 75) when converted into a 100-point scale (0=complete dissatisfaction, 100=complete satisfaction). Generally, SWB remains within this threshold. If the threshold is breached, the homeostatic system endeavours to revert to the 'normal' SWB range. The theory contends that SWB is affectively driven and is reflected in Cummins' (2010) concept of Homeostatically Protected Mood (HPMood); merging the core affect components of happiness, contentment, and positive arousal. Each person has their own genetically generated level of HPMood, providing them with a unique level of positivity, which represents their set-point – the typical level of SWB to maintain homeostasis (Cummins, 2014).

The theory proposes three key buffers for SWB – one internal and two externals. 'Behaviour' is an internal buffer and refers to how individuals adapt to challenges. It is psycho-neurological, genetically determined, and present in all individuals. The external buffers are 'quality of supportive relationships' and 'economic resources', which demonstrate great variation across people and their contextual backgrounds. Cummins (2014) contends that the 'quality of supportive relationships' is a powerful external buffer that refers to relationships that involve mutual sharing of intimacy and support. Good relationships are able to moderate the influence of potential stressors on SWB (Cummins, 2014). Adequate economic resources protect SWB by enabling people to protect themselves against possible negative circumstances inherent in their environment (Cummins, 2014). The importance of these buffers is evident in empirical research that demonstrates the positive effects of high levels of social support and higher SES on levels of SWB (Huurre et al., 2007; Malecki & Demaray, 2006). The literature indicates that SES can have a negative or positive



impact on SWB (see Huang et al., 2017; Lever et al., 2005). If the homeostatic system is unable to maintain an individuals' SWB they will experience psychological distress. As it relates to the current study, previous research (Savahl et al., 2019a, b) has demonstrated the suitability of applying SWB Homeostasis Theory in understanding the relation between bullying and SWB with children. In their analysis bullying victimization is perceived as the stressor that impacts on children's SWB, and one that could potentially breach the homeostatic threshold. In the context of experiencing bullying victimization, the internal and external buffers work to hold SWB within a state of homeostasis. If these buffers fail and the homeostatic threshold is breached, then the stressor (bullying victimization) would assume control of the system, which could ultimately lead to severe psychological distress.

## 2 Method

### 2.1 Research Design

We used data from Wave Three of the South African Children's Worlds Study. The Children's Worlds Study is a global survey that aims to assess children's subjective perceptions and evaluations of their lives and well-being and specific factors that influence their well-being, across different contexts (Rees et al., 2020). Wave Three of the South African study used a nationally representative stratified random sample of children aged 10- and 12-years old.

### 2.2 The Dataset: Sampling and Participants

We conducted the study across the nine provincial regions in South Africa, namely: Western Cape, Eastern Cape, Northern Cape, North West, Mpumalanga, Gauteng, KwaZulu-Natal, North West, and Limpopo. The sampling frame was school-based, and included children registered at primary schools across all nine provinces from two age groups (10- and 12-years-old). In South Africa, children in these age groups are generally in grades 4 and 6. The target population thus included 3 016 010 children registered in primary schools in South Africa aged 10- and 12-years. The total number of registered learners per grade is, grade 4: 1 043 124 and grade 6: 863 686 (Statistics South Africa, 2014). The stratification for the study was based on Grade (4 or 6), geographical context (urban or rural), and provincial region. Using a 99% confidence interval, and 1.5% margin of error, the total sample comprised 7428 children selected from grade 4 (10-years olds) and 6 (12-years old) in 61 participating schools. The achieved sample comprised 7428 children between the ages of 10- and 12-years-old ( $M_{\text{age}} = 10.79$ ,  $SD = 1.278$ ).

### 2.3 Instrumentation

The Children's Worlds Survey comprised more than 230 items assessing children's overall well-being and their perceptions of their well-being in various domains of

their lives. The instrument includes several standardized scales. For each wave of the survey, countries were required to adapt and translate the instrument to the specific country context using the standards as outlined by the International Test Commission (2017). In South Africa, this process comprised the backward translation method, cognitive testing with children, and the consideration of an expert translation committee. We translated the questionnaire into seven languages. Most children completed the questionnaire in English (68.6%), with the other languages as follows: Afrikaans (8.9%); isiXhosa (3.8%); isiZulu (6.6%); Setswana (2.5%); Sesotho (2.4%); Tshivenda (3.6%); and Xitsonga (3.6%). The scales as used in the current study are presented below:

### 2.3.1 The Children's Worlds Subjective Well-Being Scale (CW-SWBS)

The CW-SWBS was developed from Huebner's Students' Life Satisfaction Scale (SLSS; Huebner, 1991). The SLSS is one of the most widely used scales to measure global life satisfaction in children and has been validated in many contexts including South Africa (Savahl et al., 2017). Based on qualitative research conducted with children across various contexts, the Children's Worlds Study developed an amended version. This amended scale consisted of six items, three taken from the original SLSS, and three new items proposed by children. The scale response options are on a 0–10 end-labelled agreement scale with 'unipolar' verbal anchors of "not all agree" (0) to "Totally agree" (10). It has shown acceptable internal consistency (0.92 and 0.94) and an appropriate fit structure (Casas, 2017; Rees et al., 2020; Savahl et al., 2021, 2023).

### 2.3.2 Bullying Items

The survey included three items on bullying. One assessed physical bullying ("How often, if at all, in the last month have you been hit by other children in your school?"), and the other two assessed psychological bullying including social exclusion ("How often, if at all, in the last month have you been left out by other children in your class?") and verbal bullying (name calling) (How often in the last month have you been called unkind names?" These items were scored on a 4-point frequency scale using the following response options: 0 (never); 1 (once); 2 (2–3 times); 3 (more than 3 times).

## 2.4 Data Analytic Plan

An international co-ordinating committee managed the data. This process included the identification and exclusion of cases with a high proportion of missing data and the exclusion of cases with systematic response patterns. In the South African study, we weighted the final dataset based on the proportion of children per province. Weighting is employed with population-level data to ensure that the achieved sample is representative of the target population (Kalton & Flores-Cervantes, 2003), and mitigates unequal probabilities of selection,

non-response, non-coverage, and sample fluctuations from known population totals (see Brick & Kalton, 1996). The final cleaned dataset consisted of 7067 participants (girls = 54.4%) between the ages of 10- to 12-years ( $M_{\text{age}} = 10.79$ ,  $SD = 1.28$ ), in Grades 4 ( $n = 3383$ ) and 6 ( $n = 3684$ ).

## 2.5 Data Analysis

The data analysis consisted of two phases. In the first phase we generated descriptive statistics using the Stata 14 (Stata Corporation LLC) programme. In the second phase, we used structural equation modeling (SEM) (in AMOS 27) to ascertain the influence of the three forms of bullying on children's SWB. This phase included the application of multi-group structural equation modelling to measure the relation across groups (provincial regions, age, gender, geographical context, and SES) and to conduct a means analysis of SWB scores across the bullying frequency categories.

We applied the Full Imputation Maximum Likelihood technique as a resolution for the missing data. Given that data on SWB measures often present with non-normality (skewness and kurtosis outside acceptable thresholds) (Casas, 2017), we used the Maximum Likelihood estimation method, with the bootstrap method (500 resamples; 95% confidence intervals) to address non-normality of data. The bootstrap procedure allows for more accurate parameter estimates and the efficient handling of standard errors in the context of non-normal data (Blunch, 2008; Enders, 2010). The SEM proceeds by the first confirming the viability of the latent construct (SWB) using confirmatory factor analysis. Thereafter, we used the squared multiple correlations statistic to determine the influence of the three bullying items on the variation in children's SWB.

Following recommendations by Kline (2011), the following fit indexes were used to ascertain model fit: Comparative Fit Index (CFI), Root Mean Squared Error of Approximation (RMSEA), and Standardized Root Mean Residual (SRMR). Following recommendations of Casas (2017), scores higher than 0.950 for the CFI and scores below 0.05 for the RMSEA and SRMR were accepted as a good fit. To compare the results across age, gender, and province, measurement invariance, which refers to the degree to which items in the measure have the same meaning between groups, was assessed (Savahl et al., 2017). In the current study, this process entailed the application of multi-group structural equation modelling (MGSEM). Specifically, the study assessed measurement invariance across province, age and gender. MGSEM is the most powerful and widely used technique to test measurement invariance across groups (Steenkamp & Baumgartner, 1998). The MGSEM process comprises three sequential steps and is characterised by the application of incremental constraints assessing configural, metric and scalar invariance. We regarded each subsequent model as tenable if the fit indices did not decrease by more than .010 on the CFI and SRMR and by .015 on the RMSEA (Chen, 2007; Cheung & Rensvold, 2002).

## 2.6 Procedure and Ethics

We obtained ethics clearance for the study from the Humanities and Social Sciences Research Ethics Committee of the authors' universities, and the nine provincial Education Departments. Prior to the commencement of the survey, we held an information session with the participants. Here we discussed the aims and objectives of the study, the nature of their involvement and ethics of the study. We advised participants on their rights and the ethics principles of informed consent, confidentiality, the right to withdraw, and privacy. We also provided detail on how the data would be used and disseminated. An active consent process was followed, whereby we requested signed consent from parents/guardians and children. The principal investigators administered the survey – a process which entailed reading and explaining each item and response option as participants were answering the questionnaire.

## 3 Results

### 3.1 Descriptive Statistics

#### 3.1.1 Confirmatory Factor Analysis

We conducted CFA using AMOS 28 (Maximum Likelihood Estimation) to confirm the structural validity of the CW-SWBS. Here we obtained an excellent fit for the model (see Model 1 in Table 1). The standardized regression weights ranged between .63 and .79 and were all significant. Thereafter, we proceeded with testing the structural equation model (Fig. 1).

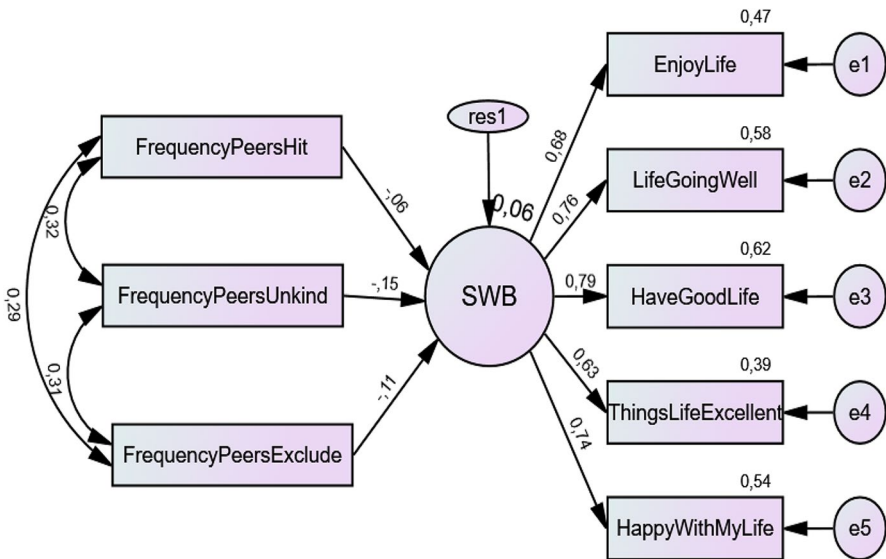
We constructed the SEM by including the three bullying items as individual observed variables. Here we obtained an excellent fit, with significant standardized regression weights. We used the Squared Multiple Correlation (SMC) to determine the contribution of the three bullying items on the variation in children's SWB. Our results demonstrate that for the overall model (pooled sample), the items measuring bullying made a significant contribution to children's SWB, with a SMC of .06. This essentially means that the combined influence of 'being hit', 'called unkind names', and 'excluded', contributed 6% to the variation in children's SWB. The strongest contributor was for the 'frequency of being called unkind names' (.15), followed by the frequency of 'being excluded' (.11), with physical bullying ('being hit') contributing the lowest (.06).

#### 3.1.2 Multi-Group Structural Equation Modeling

To compare the results across groups, we tested measurement invariance by means of multigroup structural equation modeling (Models 3–17 in Table 1; Tables 2 and 3 presents the standardized regression weights). As indicated, we achieved this by assessing three levels of invariance (configural, metric, and scalar) – a sequential process that involved the application of incremental constraints. Configural invariance represents the baseline, unconstrained model that we tested by allowing all

**Table 1** Fit indexes for the confirmatory factor and structural equation models

Model	Chi-Square	df	Sig	CFI	RMSEA	SRMR
Bootstrap, ML, 95% Confidence Intervals, Resamples = 500						
Model 1: CW-SWBS	16.127	5	.06	.999	.052 (.049 - .055)	.007
Model 2: SEM	63.527	17	.000	.997	.020 (.015 - .025)	.011
Model 3: SEM (Province Configural)	363.479	153	.000	.986	.014 (.012 - .016)	.020
Model 4: SEM (Province Metric)	466.251	185	.000	.982	.015 (.013 - .016)	.022
Model 5: SEM (Province Scalar)	540.143	217	.000	.979	.015 (.013 - .016)	.022
Model 6: SEM (Age Configural)	136.521	34	.000	.993	.021 (.017 - .024)	.013
Model 7: (SEM Age Metric)	144.114	38	.000	.993	.020 (.017 - .023)	.013
Model 8 (SEM Age Scalar)	159.220	42	.000	.993	.020 (.017 - .023)	.013
Model 9 (SEM Gender Configural)	102.253	34	.000	.996	.017 (.013 - .021)	.013
Model 10 (SEM Gender Metric)	121.769	38	.000	.995	.018 (.014 - .021)	.015
Model 11 (SEM Gender Scalar)	126.142	42	.000	.995	.020 (.017 - .023)	.015
Model 12 (SEM Geo Context Configural)	111.023	34	.000	.996	.017 (.014 - .021)	.013
Model 13 (SEM Geo Context Metric)	117.441	38	.000	.996	.017 (.013 - .020)	.013
Model 14 (SEM Geo Context Scalar)	119.905	42	.000	.996	.020 (.017 - .023)	.013
Model 15 (SEM SES Configural)	126.537	51	.000	.995	.020 (.017 - .023)	.012
Model 16 (SEM SES Metric)	170.448	59	.000	.993	.020 (.017 - .023)	.014
Model 17 (SEM SES Scalar)	206.706	67	.000	.991	.020 (.017 - .023)	.014



**Fig. 1** Structural equation modeling

**Table 2** Standardized regression weights for items on the overall SEM across provincial region (constrained factor loadings and intercepts)

		Eastern Cape			North West			Western Cape		
		Estimate	Lower	Upper	Estimate	Lower	Upper	Estimate	Lower	Upper
CWSWBS	← Freq.Hit	-.054	-.136	.018	-.164	-.263	-.068	-.065	-.165	.046
CWSWBS	← UnkindNames	-.162	-.240	-.079	-.175	-.271	-.091	-.245	-.325	-.159
CWSWBS	← Freq.Excl.	-.086	-.159	-.015	-.083	-.181	.023	-.080	-.176	.011
EnjoyLife	← CWSWBS	.757	.713	.802	.637	.559	.714	.734	.664	.798
LifeGoingWell	← CWSWBS	.774	.719	.824	.791	.726	.845	.802	.730	.860
HaveGoodLife	← CWSWBS	.767	.713	.827	.851	.795	.901	.828	.766	.881
ThingsLifeExcellent	← CWSWBS	.670	.620	.718	.616	.546	.685	.668	.601	.734
HappyWithLife	← CWSWBS	.723	.668	.776	.780	.705	.831	.779	.702	.843
SMC	← CWSWBS	.052	.021	.080	.110	.047	.172	.101	.052	.143
		Northern Cape			Free State			Mpumalanga		
		Estimate	Lower	Upper	Estimate	Lower	Upper	Estimate	Lower	Upper
CWSWBS	← Freq.Hit	-.087	-.295	.119	-.151	-.319	-.005	-.171	-.280	-.068
CWSWBS	← Freq.UnkindNames	-.065	-.236	.103	-.146	-.270	-.002	-.069	-.174	.023
CWSWBS	← Freq.Excl.	-.257	-.412	-.101	.023	-.112	.161	-.211	-.317	-.099
EnjoyLife	← CWSWBS	.728	.633	.807	.655	.540	.766	.717	.665	.772
LifeGoingWell	← CWSWBS	.765	.646	.856	.603	.466	.717	.780	.717	.833
HaveGoodLife	← CWSWBS	.744	.619	.845	.647	.509	.764	.852	.800	.893
ThingsLifeExcellent	← CWSWBS	.637	.526	.720	.554	.440	.668	.668	.619	.738
HappyWithLife	← CWSWBS	.726	.625	.814	.723	.609	.813	.762	.711	.812
SMC	← CWSWBS	.111	.027	.235	.050	.008	.120	.119	.052	.184
		Limpopo			Gauteng			KwaZulu Natal		
		Estimate	Lower	Upper	Estimate	Lower	Upper	Estimate	Lower	Upper
CWSWBS	← FreqPeersHit	.023	-.053	.087	-.030	-.107	.037	-.044	-.110	.021
CWSWBS	← FreqUnkindNames	-.112	-.172	-.050	-.128	-.195	-.064	-.146	-.212	-.081

**Table 2** (continued)

	← Freq.Excl	-.182	-.036	-.157	-.216	-.077	-.139	-.207	-.079
CWSWBS									
EnjoyLife	← CWSWBS	.579	.712	.689	.640	.733	.628	.575	.681
LifeGoingWell	← CWSWBS	.623	.744	.801	.757	.839	.734	.685	.778
HaveGoodLife	← CWSWBS	.744	.793	.822	.775	.860	.746	.696	.789
ThingsLifeExcellent	← CWSWBS	.482	.545	.662	.619	.709	.618	.571	.666
HappyWithLife	← CWSWBS	.676	.732	.755	.714	.794	.735	.691	.778
SMC	← CWSWBS	.029	.056	.061	.031	.094	.060	.035	.091

All loadings are significant at < .005. *SMC* Square Multiple Correlations

**Table 3** Standardized regression weights for items on the overall SEM across age, gender, and SES (constrained factor loadings and intercepts)

	10-Years			12-Years			Upper	Lower	Upper	Lower
	Estimate	Lower	Upper	Estimate	Lower	Upper				
CWSWBS	← Freq.Hit	-.074	-.120	-.029	-.062	-.102	Upper	-.023		
CWSWBS	← Freq.UnkindNames	-.104	-.145	-.063	-.179	-.217	Upper	-.145		
CWSWBS	← Freq.Excl.	-.080	-.119	-.038	-.134	-.172	Upper	-.093		
EnjoyLife	← CWSWBS	.635	.596	.675	.721	.687	Estimate	.753		
LifeGoingWell	← CWSWBS	.721	.689	.750	.811	.785	Estimate	.834		
HaveGoodLife	← CWSWBS	.736	.702	.766	.839	.817	Estimate	.859		
ThingsLifeExcellent	← CWSWBS	.584	.552	.617	.665	.633	Estimate	.696		
HappyWithLife	← CWSWBS	.701	.665	.733	.767	.738	Estimate	.794		
SMC	← CWSWBS	.037	.021	.052	.081	.063	Estimate	.102		
	Boys	Estimate	Lower	Upper	Lower	Upper	Urban	Estimate	Rural	Estimate
CWSWBS	← FreqPeer-sHit	-.077	-.119	-.029	-.096	-.007	Estimate	-.048	Estimate	-.087
CWSWBS	← FreqUnkindNames	-.112	-.151	-.070	-.214	-.138	Estimate	-.177	Estimate	-.213
CWSWBS	← FreqExcl.	-.068	-.111	-.022	-.186	-.107	Estimate	-.143	Estimate	-.188
EnjoyLife	← SLSS	.658	.621	.689	.670	.738	Estimate	.714	Estimate	.679
LifeGoingWell	← SLSS	.731	.701	.763	.761	.812	Estimate	.785	Estimate	.757
HaveGoodLife	← SLSS	.760	.731	.790	.776	.831	Estimate	.804	Estimate	.780
ThingsLifeExcellent	← SLSS	.611	.579	.642	.613	.674	Estimate	.636	Estimate	.611
HappyWithLife	← SLSS	.715	.682	.743	.728	.790	Estimate	.766	Estimate	.739
SMC	← SLSS	.036	.023	.054	.062	.099	Estimate	.080	Estimate	.063



Table 3 (continued)

		Low-SES			Lower-Middle SES			Middle SES		
		Estimate	Lower	Upper	Estimate	Lower	Upper	Estimate	Lower	Upper
CWSWBS	← Freq0.Hit	-.052	-.087	-.017	-.171	-.324	-.021	-.064	-.118	-.002
CWSWBS	← Freq.Unkind-Names	-.130	-.164	-.095	-.086	-.176	.027	-.180	-.227	-.128
CWSWBS	← Freq.Excl.	-.080	-.119	-.040	-.200	-.319	-.053	-.145	-.210	-.096
EnjoyLife	← CWSWBS	.640	.610	.669	.831	.755	.881	.744	.706	.781
LifeGoingWell	← CWSWBS	.712	.681	.740	.879	.822	.923	.839	.808	.866
HaveGoodLife	← CWSWBS	.736	.708	.768	.890	.837	.928	.867	.840	.894
ThingsLifeExcellent	← CWSWBS	.572	.543	.608	.837	.767	.883	.701	.671	.735
HappyWithLife	← CWSWBS	.708	.680	.739	.831	.761	.887	.793	.760	.820
SMC	← CWSWBS	.039	.024	.050	.128	.057	.209	.090	.067	.117

parameters to be freely estimated. We tested metric invariance by constraining the factor loadings; and scalar invariance by constraining the factor loadings and intercepts. Following recommendations by Chen (2007) and Cheung & Rensvold (2002), we accepted each subsequent model if the fit indices did not decrease by more than .010 on the CFI and SRMR and by .015 on the RMSEA. Using the SMC, we found the following noteworthy results across the subgroups. Across provincial region, the SMCs fell within a range from .029 (Limpopo) to .119 (Mpumalanga). We note high SMCs for the North West (.110), the Northern Cape (.111) and the Western Cape (.101). All results were significant at ( $p < .05$ ). The attainment of scalar invariance allows for the comparison of mean scores.

### 3.1.3 Means Analysis

Given the attainment of scalar invariance, we proceeded with presenting a means analysis. Cognisant of the contestation around the criteria of 'repetition', we used a broader approach with the means analysis, by further differentiating the means of the SWB scores per frequency category. This we achieved by conducting a multi-group confirmatory factor analysis, wherein each frequency category represented a subgroup (see Table 4). The standardized regression weights, including the mean differences of the various subgroups for each bullying item, are presented in Tables 5, 6 and 7. Using the 'Never' frequency category as the baseline, we found a progressive and significant decrease in mean scores with each subsequent frequency category across all three formats of bullying victimization.

**Table 4** Fit indexes for the multigroup confirmatory factor models across formats of bullying

Model	Chi-Square	<i>df</i>	Sig	CFI	RMSEA	SRMR
Bootstrap, ML, 95% Confidence Intervals						
Resamples = 500						
Model 1: CW-SWBS	16.127	5	.006	.999	.052 (.049 - .055)	.007
Model 2: Being Hit Configural	56.114	20	.000	.997	.016 (.011 - .021)	.011
Model 3: Being Hit Metric	77.546	32	.000	.996	.014 (.010 - .018)	.012
Model 4: Being Hit Scalar	95.251	44	.000	.996	.013 (.009 - .016)	.012
Model 6: Unkind Names Configural	62.289	20	.000	.997	.017 (.013 - .022)	.009
Model 7: Unkind Names Metric	92.282	32	.000	.995	.016 (.013 - .020)	.013
Model 8: Unkind Names Scalar	141.590	44	.000	.992	.018 (.015 - .021)	.013
Model 9: Excluded Configural	48.930	20	.000	.998	.014 (.009 - .020)	.012
Model 10: Excluded Metric	67.823	32	.000	.997	.013 (.008 - .017)	.013
Model 11: Excluded Scalar	87.439	44	.000	.996	.012 (.008 - .015)	.013

**Table 5** Standardized regression weights for items on the CWSWBS: Multigroup confirmatory factor analysis (being hit)

	Never			Once			2-3 Times			More than 3 Times		
	Estimate	Lower	Upper	Estimate	Lower	Upper	Estimate	Lower	Upper	Estimate	Lower	Upper
	EnjoyLife	.692	.655	.733	.672	.632	.714	.667	.611	.721	.710	.662
LifeGoingWell	.764	.730	.794	.743	.699	.782	.737	.683	.787	.801	.761	.849
HaveGoodLife	.791	.757	.819	.783	.743	.819	.757	.705	.801	.822	.778	.858
ThingsLifeExcellent	.606	.573	.639	.608	.566	.649	.603	.546	.651	.705	.658	.748
HappyWithLife	.748	.713	.775	.708	.666	.748	.718	.656	.762	.752	.705	.792
Mean differences	0			*,.224	CR = -.5238		*,.456	CR = -.7816		*,.515	CR = -.7451	

\* =  $p < .001$ ; All other values significant at  $p < .005$

**Table 6** Standardized regression weights for items on the CWSWBS: Multigroup confirmatory factor analysis (being called unkind names)

	Never						Once						2-3 Times						More than 3 Times							
	Estimate		Lower		Upper		Estimate		Lower		Upper		Estimate		Lower		Upper		Estimate		Lower		Upper			
EnjoyLife	← CWSWBS	.668	.618	.717	.642	.599	.688	.647	.600	.689	.728	.694	.758	← CWSWBS	.668	.618	.717	.642	.599	.688	.647	.600	.689	.728	.694	.758
LifeGoingWell	← CWSWBS	.729	.679	.768	.749	.706	.787	.726	.668	.778	.796	.766	.830	← CWSWBS	.729	.679	.768	.749	.706	.787	.726	.668	.778	.796	.766	.830
HaveGoodLife	← CWSWBS	.774	.734	.819	.751	.709	.792	.768	.723	.809	.838	.808	.862	← CWSWBS	.774	.734	.819	.751	.709	.792	.768	.723	.809	.838	.808	.862
ThingsLifeExcellent	← CWSWBS	.558	.517	.594	.619	.575	.660	.599	.550	.656	.684	.646	.723	← CWSWBS	.558	.517	.594	.619	.575	.660	.599	.550	.656	.684	.646	.723
HappyWithLife	← CWSWBS	.725	.673	.771	.727	.687	.764	.690	.641	.734	.769	.739	.802	← CWSWBS	.725	.673	.771	.727	.687	.764	.690	.641	.734	.769	.739	.802
Mean differences					*,.299	CR = -.7191				*,.506	CR = -.9771									*,.721	CR = -14.120					

\* =  $p < .001$ ; All other values significant at  $p < .005$

**Table 7** Standardized regression weights for items on the CWSWBS: Multigroup confirmatory factor analysis (being excluded)

	Never			Once			2-3 Times			More than 3 Times		
	Estimate	Lower	Upper	Estimate	Lower	Upper	Estimate	Lower	Upper	Estimate	Lower	Upper
	← CWSWBS	.655	.612	.694	.660	.615	.702	.717	.668	.767	.726	.679
LifeGoingWell	.738	.702	.768	.740	.697	.780	.763	.712	.819	.812	.765	.847
HaveGoodLife	.766	.732	.795	.772	.732	.810	.807	.763	.852	.845	.806	.872
ThingsLifeExcellent	.576	.540	.609	.632	.595	.680	.660	.593	.713	.692	.648	.734
HappyWithLife	.737	.707	.769	.714	.674	.755	.744	.697	.790	.755	.715	.799
Mean differences				*.293	CR = -6.745		*.519	CR = -8.299		*.621	CR = -9.671	

\* =  $p < .001$ ; All other values significant at  $p < .005$

## 4 Discussion

The overarching aim of the study was to explore the relationship between children's experiences of bullying victimization and their SWB. The study further aimed to ascertain the extent to which the relationship between three forms of bullying victimization and SWB differ across provincial region, age (10 and 12-years), gender, geographical context and SES.

In line with previous empirical initiatives (see e.g. Borualogo and Casas, 2021; Savahl et al., 2019a, b; Tiliouine, 2015; Varela et al., 2019), the current study found a significant negative relationship between bullying victimization and children's SWB. The combined influence of being hit, called unkind names, and socially excluded explained 6% of the variation in SWB for the overall sample, with some variation across provincial region, age groups, gender, geographical context, and SES. We note the following key findings of the sub-group analysis:

- Across provincial region the highest explained variance was found in the Mpumalanga (11.9%), North West (11.0%), and the Western Cape (10.1%) provinces,
- Across the age groups, the explained variance for the 12-year-old cohort (8.1%) was higher than for the 10-year-olds (3.7%),
- Across gender, the explained variance for girls (8.0%) was higher than boys (3.6%),
- Across SES, the explained variance for the lower-middle SES group (12.8%) was substantially higher than the middle SES (9.0%) and low SES group (3.9%),
- Across geographical context, participants from the rural geographical context (8.0%) had a higher explained variance than the urban (7.0%).

Considering the individual items, our results demonstrate that being 'called unkind names' made a stronger contribution to SWB across most of the sub-groups. The exception was the Northern Cape, Mpumalanga, and Gauteng Provinces, and the lower-middle SES group, where being 'excluded' made the highest contribution. Being 'hit' only made the strongest contribution of the three items in the Free State province.

Another notable finding of the study was that even though the three forms of bullying victimization were negatively associated with SWB, high scores were obtained on the individual items of the SWB scale and for the overall mean composite scores. A means analysis of the composite mean scores does, however, reveal interesting results, demonstrating significant differences between composite mean scores on the CW-SWBS across the various frequency categories of bullying experiences. The most profound finding was for 'being excluded' – those experiencing this form of bullying 'more than 3 times', presented with mean score that was  $-.721$  lower than those who never experienced this form of bullying.

The findings of the study can be located in Cummins' SWB Homeostasis Theory. From this theoretical perspective, the associations between bullying and

SWB may be subtle and would not breach the homeostatic threshold that maintains SWB. From the perspective of Homeostasis Theory, under 'normal' challenges, SWB is held within its set-point range with the employment of buffers, which offers three levels of defense. The first of these buffers is behaviour; as individuals are typically capable of evading adverse challenges by instituting particular routines to anticipate daily experiences. For the children in this study, bullying victimization may be considered as one of these behaviours that children are usually able to adapt to. Adaptation to negative circumstances is aided by two additional external buffers, relationship intimacy, and money. Stable relationships serve to moderate the impact of possible stressors on children's SWB (Cummins, 2014). External buffers, however, may be breached. On these occasions, SWB is located outside the set-point range, which then activates the internal buffers. Internal buffers serve to defend SWB by shifting the way an individual sees themselves in contrast to the homeostatic challenge - to divert this 'negative potential' from the fundamental perception of the self. There are divergent pathways of thinking that can attain this, "one can find meaning in the event ("I am being tested"), deny responsibility for the failure ("there was nothing that I could do"), or regard the failure as unimportant ("I did not need to achieve that anyway")" (Cummins, 2014). Thus, the external and internal buffers work in tandem to protect and maintain SWB.

In the context of the current study, even though children may be experiencing different forms of bullying victimization, it is ostensibly not resulting in a significant disruption of the homeostatic controlled set-point of SWB. The results in the current study appear to be consistent for the overall sample and across the subgroups (provinces, age groups, gender, geographical context, and SES). If put under severe pressure, there is a possibility that the SWB system could be breached, resulting in the stressor (bullying in the current study) assuming control of the system (Cummins, 2014) – this could potentially lead to psychological distress. In the final analysis, it appears that even though being 'hit', 'called unkind names' and 'excluded' have a significant influence on children's SWB, the homeostatic mechanism is potentially mediating this influence and maintaining levels of SWB.

#### 4.1 Conclusion and Recommendations

In a summative way, this research concluded that bullying has a significant negative effect on children's overall SWB. The study offers much at both the conceptual and the methodological levels. Future research should be more specific on the possible mediating factors between different types of bullying victimization and demographic factors (such as gender), socialisation processes (e.g. family type), children's mastery of social skills and other psychological factors (e.g., self-esteem). In particular, given the diversity of the childhood experience in South Africa, we recommend a more nuanced cross-cultural analysis. This could be achieved through the application of a multi-level structural equation modelling approach.

We note that in South Africa there is a dearth of cross-cultural studies on perceptions and experiences of bullying and their effects on satisfaction with life and

life domains, with rigorous controls of mediating factors. At a more general level, it is critical to explore and document how different cultures, imbued by socio-historical processes, perceive and deal with the established deleterious effects of the bullying phenomenon. On a practical level, the findings indicate that some children, even in the context of being bullied, may present with acceptable levels of life satisfaction, maintained by the homeostatic system (Savahl et al., 2019b). However, it is likely that these children may be at risk, given that a breach of the homeostatic threshold may result in a range of adverse psychological outcomes. Practitioners, teachers, and caregivers of children need to be cognisant that even though children may present with appropriate levels of well-being, they be victims of bullying and are at-risk for the negative outcomes associated with bullying. The COVID-19 pandemic has further exacerbated the bullying phenomenon – researchers need to invest in understanding how the pandemic has changed the dynamic of school-based bullying.

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**Data Availability** The raw data supporting the conclusions of this article are available from the *International Society for Child Indicators* upon reasonable request. Conditions and restrictions are applicable.

## Declarations

**Ethics Statement** Ethics approval was granted by the Humanities and Social Sciences Research Ethics Committee of the University of the Western Cape (Ethics clearance number: HS17/2/1). Permission to access participating schools was provided by the nine provincial education departments and the principal at each participating school in the study context. We obtained active informed consent from participants and their parent or guardian to participate in the study.

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